

H Company





## Comparison LED vs. conventional lamps

LED 15 W ≈

1 x 36 W T26 (37 W Psys)

LED 23 W ≈

1 x 58 W T26 (59 W Psys)

LED 30 W ≈

2 x 36 W T26 (74 W Psys)

LED 44 / 45 W ≈

3 x 36 W T26 (111 W Psys) 2 x 58 W T26 (118 W Psys)

LED 58 W ≈

3 x 58 W T26 (177 W Psys)

#### Ceiling and wall luminaires | PLANOX - movement sensor

Type of protection: IP 66

Protection class: I

Impact protection: IK04 (PMMA), IK08 (polycarbonate)

Housing made of shockproof, UV-resistant plastic (polycarbonate). Injected silicone-based seal with increased resistance even under extreme conditions. Diffuser made of UV-resistant opal plastic (PMMA) or shockproof opal plastic (polycarbonate) with excellent light transmission of up to 90%. Flexible and easy installation thanks to sliding quick-fix brackets made of stainless steel and diffuser with integrated gear tray as well as variable cable entry (face or rear sided). Through-wiring (2.5mm²) as standard. Ceiling mounting stainless steel brackets and triangular brackets for pendant mounting included in delivery. With integrated movement sensor, Master-Slave operation possible,

▼ Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

Available colour: 9 = grev

#### Functional parameters of the motion detector:

- Holding time: 5 sec. 10 or 15 min., adjustable in 4 steps.
- Range: up to 8 m; adjustable in up to 4 steps.
- Brightness sensor: adjustable in up to 4 steps.
- Factory setting: hold time 5 sec., brightness threshold deactivated, detection range 100%.

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
	Ceiling, wall and p	endant luminaires with mov	ement sens	sor			Price Category 1
>	Diffuser: plastic (p	oolycarbonate)					
	451230.009.19	L 615, B 102, H 85	840	2000/3100	15/23	135	on/off
	451231.009.19	L 1174, B 102, H 85	840	4400/6400	30/44	147	on/off
	451232.009.19	L 1454, B 102, H 85	840	6700/8600	45/58	149	on/off
	Diffuser: plastic (F	PMMA)					
	451233.009.19	L 615, B 102, H 85	840	2200/3400	15/23	148	on/off
	451234.009.19	L 1174, B 102, H 85	840	4700/6900	30/44	157	on/off
	451235.009.19	L 1454, B 102, H 85	840	7200/9200	45/58	160	on/off

MultiLumen: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.





## Ceiling and wall luminaires | PLANOX FARM

Type of protection: IP 66 Protection class: I Impact protection: IK04

Specially developed for long-term resistance to chemicals, especially ammonia, Housing made of resistant, glass-fibre reinforced plastic (GRP). Diffuser made of UV-resistant opal plastic (PMMA) with excellent light transmission of up to 90%. Injected silicone-based seal with increased resistance even under extreme conditions, Flexible and easy installation thanks to sliding quick-fix brackets made of stainless steel and diffuser with integrated gear tray as well as variable cable entry (face or rear sided). Through-wiring (2.5mm²) as standard. Ceiling mounting stainless steel brackets and triangular brackets for pendant mounting included in delivery.

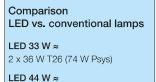
▼ Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

Ammonia resistant: Suitable for the use in stables with livestock and agricultural side areas.

Available colour: 9 = grey

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling, wall and p	endant luminaires					Price Category 11
451234.009.1	L 1174, B 102, H 85	840	5450	33	165	on/off
451235.009.1	L 1454, B 102, H 85	840	7150	44	163	on/off

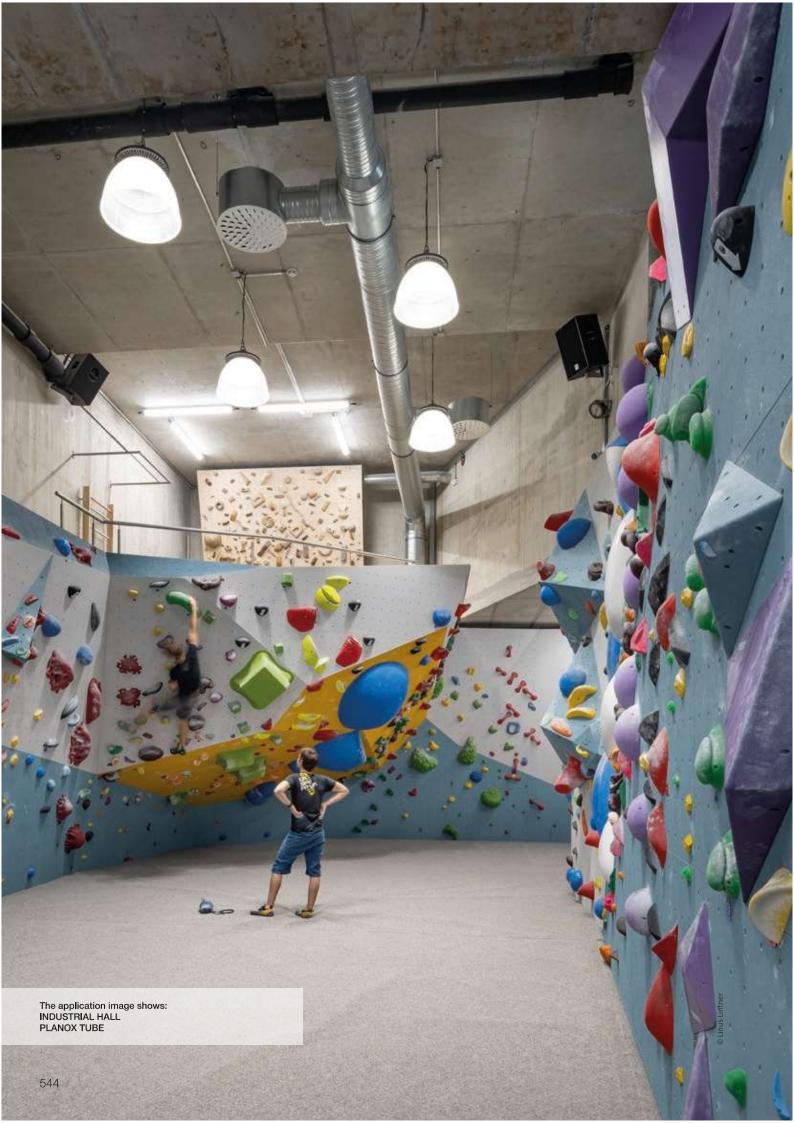


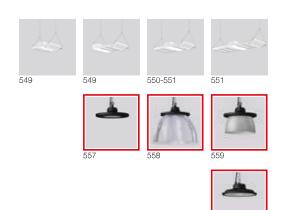


3 x 36 W T26 (111 W Psys)





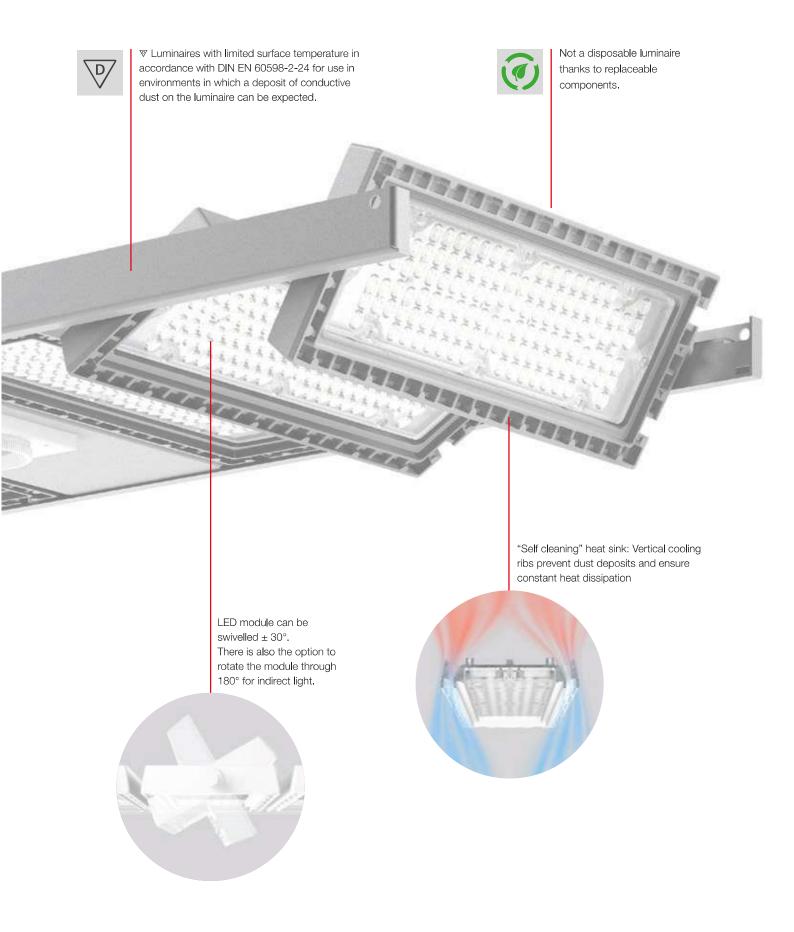




LIGHT CASE 546-553

INDUSTRIAL HALL 554-559

INDUSTRIAL HALL EVO 560-563 LIGHT CASE® State of the art drivers regulate the LEDs **CLO** Everything at a glance throughout their entire lifetime and therefore DALI Constant Light Output prevent the usual reduction in luminous flux. This process known as CLO (Constant Light Output) allows the optimised control of efficiency right from the start. Converter compatible with DC. Luminaires made of impact resistant polycarbonate. High ingress **IP65** protection rating: IP 65. Ball impact proof in accordance with DIN 18032-03. Highbay luminaire with 4 modules: Version with integrated movement sensor and light sensor for daylight detection. Additional cover of single-panetempered glass for demanding environmental conditions such as With all other versions on request. light control atmospheres containing oil and chemicals.

















## LIGHT CASE®

Highbay luminaires

## ARCHITECTURE

- Versatile: 4 sizes, 3 installation types, 3 beam angles, 2 colours.
- Robust: Version with toughened safety glass for demanding environmental conditions.
- Standard: Ball impact proof in accordance with DIN 18032-03.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

## LIGHTING DESIGN

- Powerful: High luminous flux up to 53000 lm.
- Efficient: Very good luminous efficiency of up to 159 lm/W.
- Dynamic: Version with integrated movement sensor and light sensor for daylight detection.
- Reliable planning: CLO control for constant light output over the entire service life.

## INSTALLATION

- Flexible: Surface and pendant mounting.
- Individual: LED module can be swivelled  $\pm~30^{\circ}$  and can be rotated through 180° for indirect light.
- Advantageous: Accessories for direct ceiling installation, cable and chain pendant mounting available.



#### Highbay luminaires | LIGHT CASE

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Housing: die cast aluminium and sheet steel, powder-coated. LED modules can be swivelled  $\pm$  30° for optimum illumination. Cover: plastic (polycarbonate, shockproof), with integrated four-row lens system. Lens optics for different light distribution versions, With 5-pin connection terminal (1.5 m). CLO control for constant light output over the entire service life.

Ball impact proof in accordance with DIN 18032-03 (except steel cable suspension).

 $\overline{v}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

With integrated movement sensor and light sensor for daylight detection on request.

#### Suitable for chain or steel cable suspension (to be provided on site).

Available colours (X): 2 = white, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	UGR	Lighting control
Highbay luminaires	with 2 modules						Price Category 21
Narrow beam light of	distribution						
921680.00X.76	L 406, B 397, H 110	840	17700	117	152	22,2	DALI
921680.00X.1.76 *	L 406, B 397, H 110	865	17300	117	148	22,5	DALI
Light distribution de	eep-wide beam						
921681.00X.76	L 406, B 397, H 110	840	17700	117	152	23,4	DALI
921681.00X.1.76 *	L 406, B 397, H 110	865	17400	117	149	23,4	DALI
Wide beam light dis	tribution						
921682.00X.76	L 406, B 397, H 110	840	17800	117	153	24,3	DALI
921682.00X.1.76 *	L 406, B 397, H 110	865	17400	117	149	24,5	DALI
* Dischalated as lead and as							

<sup>\*</sup> Photobiological safety according to EN 62471: RG2





Comparison LED vs. conventional lamps LED 117 W ≈ 2 x 100 W HIE (212 W Psys)

## Highbay luminaires | LIGHT CASE

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Housing: die cast aluminium and sheet steel, powder-coated. LED modules can be swivelled  $\pm$  30° for optimum illumination. Cover: plastic (polycarbonate, shockproof), with integrated four-row lens system. Lens optics for different light distribution versions. With 5-pin connection terminal (1.5 m). CLO control for constant light output over the entire service life.

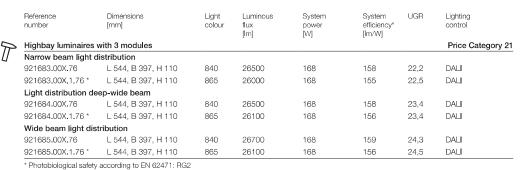
Ball impact proof in accordance with DIN 18032-03 (except steel cable suspension).

 $\ensuremath{\mathbb{V}}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

With integrated movement sensor and light sensor for daylight detection on request.

#### Suitable for chain or steel cable suspension (to be provided on site).

Available colours (X): 2 = white, 4 = silver







Comparison LED vs. conventional lamps LED 168 W ≈ 2 x 150 W HIE (320 W Psys)





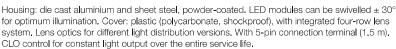
## Comparison LED vs. conventional lamps

LED 225 W ≈

1 x 400 W HIE (440 W Psys)

## Highbay luminaires | LIGHT CASE

Type of protection: **IP 65**Protection class: I
Impact protection: **IK**05



Ball impact proof in accordance with DIN 18032-03 (except steel cable suspension).

 $\overline{v}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

With integrated movement sensor and light sensor for daylight detection on request.

#### Suitable for chain or steel cable suspension (to be provided on site).

Available colours (X): 2 = white, 4 = silver

	ference mber	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	UGR	Lighting control
Hiç	ghbay luminaires wi	ith 4 modules						Price Category 21
Na	rrow beam light dis	tribution						
92	1686.00X.76	L 680, B 397, H 110	840	35300	225	157	22,2	DALI
92	1686.00X.1.76 *	L 680, B 397, H 110	865	34600	225	154	22,5	DALI
Lig	nt distribution deep	p-wide beam						
92	1687.00X.76	L 680, B 397, H 110	840	35400	225	158	23,4	DALI
92	1687.00X.1.76 *	L 680, B 397, H 110	865	34800	225	155	23,4	DALI
Wi	de beam light distri	bution						
92	1688.00X.76	L 680, B 397, H 110	840	35600	225	159	24,3	DALI
92	1688.00X.1.76 *	L 680, B 397, H 110	865	34800	225	155	24,5	DALI

<sup>\*</sup> Photobiological safety according to EN 62471: RG2



# Comparison LED vs. conventional lamps

LED 225 W ≈

1 x 400 W HIE (440 W Psys)

## Highbay luminaires | LIGHT CASE ESG

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Housing: die cast aluminium and sheet steel, powder-coated. LED modules can be swivelled  $\pm\,30^\circ$  for optimum illumination. Cover: plastic (polycarbonate, shockproof), with integrated four-row lens system. Additional cover of toughened safety glass for demanding environmental conditions such as atmospheres containing oil and chemicals. With 5-pin connection terminal (1.5 m). CLO control for constant light output over the entire service life,

Ball impact proof in accordance with DIN 18032-03 (except steel cable suspension).

 $\overline{v}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

With integrated movement sensor and light sensor for daylight detection on request,

## Suitable for chain or steel cable suspension (to be provided on site).

Available colours (X): 2 = white, 4 = silver

Refere numbe		Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	UGR	Lighting control
Hight	ay luminaires w	th 4 modules						Price Category 21
Wide	beam light distri	bution						
92169	M 00X 76	L 680 B 397 H 110	840	35600	225	150	24.3	DALL





#### Highbay luminaires | LIGHT CASE SENSOR - Movement sensor

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K02

Housing: die cast aluminium and sheet steel, powder-coated. LED modules can be swivelled  $\pm$  30° for optimum illumination. Cover: plastic (polycarbonate, shockproof), with integrated four-row lens system. With 5-pin connection terminal (1,5 m), Built-in DALI sensor for daylight- and presence-dependent lighting control. CLO control for constant light output over the entire service life.

Ball impact proof in accordance with DIN 18032-03 (except steel cable suspension).

 $\overline{v}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

## Suitable for chain or steel cable suspension (to be provided on site).

Available colours (X): 2 = white, 4 = silver

#### Light and presence sensor (DALI 1):

Housing: plastic. Functions can be used separately, 2 DALI input addresses. Detection range: 18 m. Light sensor range: 20-800 k (measured at the sensor). Installation height: up to 13 m.

Example of use: Walking motion detection of persons: 3-10 m installation height. Vehicle motion detector (e.g., fork lift): 3-13 m installation height.

#### Light and presence sensor (DALI 2):

Housing: plastic. Detection range: 12-18 m. Detection angle: to  $72^{\circ}$ . Light sensor range: 0,5-2000 lx (measured at the sensor). Installation height: 8-18 m.

Example of use: Warehouses, corridors, passageways, garages.

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	UGR	Lighting control
Highbay luminair	es with 4 modules						Price Category 21
Wide beam light	distribution						
DALI 1 sensor							
921692.00X.76	L 680, B 397, H 178	840	35600	225	159	24,3	DALI
DALI 2 sensor							
921693.00X.76	L 680, B 397, H 131	840	35600	225	159	24,3	DALI











### Comparison LED vs. conventional lamps

**LED 225 W ≈** 1 x 400 W HIE (440 W Psys)

## Highbay luminaires | LIGHT CASE

Type of protection: **IP 65**Protection class: I
Impact protection: IK05

Housing: die cast aluminium and sheet steel, powder-coated. LED modules can be swivelled  $\pm$  30° for optimum illumination. Cover: plastic (polycarbonate, shockproof), with integrated four-row lens system. Lens optics for different light distribution versions. With 5-pin connection terminal (1.5 m). CLO control for constant light output over the entire service life.

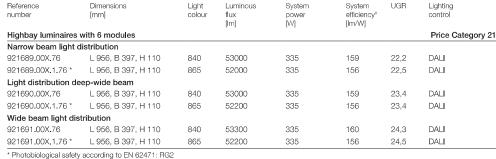
Ball impact proof in accordance with DIN 18032-03 (except steel cable suspension).

▼ Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

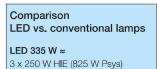
With integrated movement sensor and light sensor for daylight detection on request.

## Suitable for chain or steel cable suspension (to be provided on site).

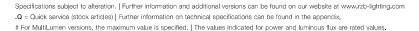
Available colours (X): 2 = white, 4 = silver















#### Accessories

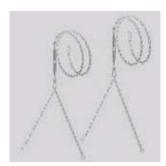
Suspension Length: 1750 mm

Suspension cable set for torsion- and vibration-free horizontal mounting. Consisting of 2 Y-type steel cables and snaplinks for a 2-point suspension.

Available colour: 0 = blank

Reference Dimensions number [mm]

Pendant mounting			Price Category 21
982642.000	LP 1750 mm	Suspension cable set	



## Accessories

Suspension Length: 1850 mm

Chain suspension set for torsion- and vibration-free horizontal mounting.

Consisting of 2 knotted chains with turnbuckle and snaplink.

Available colour: 0 = blank

Reference Dimensions number [mm]

Pendant mounting			Price Category 21
982642.010	LP 1850 mm	Chain suspension set	



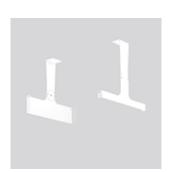
#### Accessories

For attaching chain or rope pendulum sets to a suspension point.

Available colour: 2 = white

Reference Dimensions number [mm]

Mounting access	sories for pendant set		Price Category 21
982689.002	L 70, B 30, H 19	Ceiling mounting element for single-point suspension	



### Accessories

Mounting bracket for wall and ceiling mounting, 180° swivelling. Angle adjustable in 15° steps.

Available colours (X): 2 = white, 4 = silver

Reference Dimensions number [mm]

Wall and ceiling I	mounting bracket		Price Category 21
982691.01X	L 403, B 61, H 283	For luminaire with 2, 4 or 6 modules	
982691.00X	L 403, B 61, H 346	For luminaire with 3 modules	



## Accessories

Mounting bracket for wall mounting.

Available colours (X): 2 = white, 4 = silver

Reference Dimensions number [mm]

Wall mounting			Price Category 21
982690.00X	L 146, B 401, H 100	For luminaire with 3 modules	









## INDUSTRIAL HALL

Highbay luminaires

## ARCHITECTURE

- Robust: Compact and flat Highbay.
- **Protected:** Non-reflecting, toughened safety glass.
- **Safe:** Luminaire with limited surface temperature in accordance with EN 60598-2-24.

## LIGHTING DESIGN

- Reliable planning: Optionally free-radiating, with aluminum reflector or with plastic refractor.
- **Certified:** Qualified for use in the food and drink industry.
- **Versatile:** High Temperature version for high ambient temperatures.

## INSTALLATION

- Easy installation: Easy to install thanks to 1-point suspension.
- Variable: Surface and pendant mounting.
- Flexible: Glare limitation through accessories with reflectors (UGR  $\leq$  22) and refractors (UGR  $\leq$  19 up to 25).



## Highbay luminaires | INDUSTRIAL HALL

Type of protection: IP 65

Protection class: I

Impact protection: IK09, IK07 (HT)

Operating range: -30°C to +50°C Operating range HT: -10°C to +65°C

Robust housing made of die-cast aluminium with eye ring, powder coated. Vertical cooling ribs ensure constant heat dissipation for optimal thermal management. Primary light control with high-performance wide-area LED. Diffuser made of clear, non-reflecting, single pane safety glass (toughened glass). Easy to install thanks to 1-point suspension. With power cord (1.5 m). Dimming range 10% to 100%.

 $\ensuremath{\mathbb{V}}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

## Suitable for chain or steel cable suspension (to be provided on site).

Available colour: 3 = black

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	UGR	Lighting control
Highbay luminaires	without cover							Price Category 21
INDUSTRIAL HALL	mini							
921713.003	D 248, H 168	840	5800	40	145	104	32,5	on/off
921713.003.76	D 248, H 175	840	5800	40	145	105	32,6	DALI
921714.003.1	D 248, H 168	830	10000	80	125	103	34,8	on/off
921714.003	D 248, H 168	840	11000	80	138	103	35,2	on/off
921714.003.76	D 248, H 170	840	11000	80	138	103	35	DALI
INDUSTRIAL HALL	midi							
921698.003	D 360, H 168	840	13900	85	164	111	32,3	on/off
921698.003.76	D 360, H 168	840	13900	85	164	111	32,3	DALI
921699.003	D 360, H 168	840	19300	120	161	111	33,4	on/off
921699.003.76	D 360, H 168	840	19300	120	161	111	33,4	DALI
921700.003 .Q	D 360, H 178	840	25500	165	155	111	34,4	on/off
921700.003.76	D 360, H 178	840	25500	165	155	111	34,4	DALI
INDUSTRIAL HALL	maxi							
921707.003	D 405, H 178	840	35000	220	160	111	34,2	on/off
921707.003.76	D 405, H 178	840	35000	220	160	111	34,2	DALI
921707.003.2.76	D 405, H 178	850	35500	220	162	111	34,2	DALI
INDUSTRIAL HALL	HT maxi							
921710.003	L 499, B 405, H 118	840	19500	150	130	108	31,9	on/off





Comparison

LED vs. conventional lamps

LED 40 W ≈

1 x 70 W HIT (84 W Psys)

LED 80 / 85 W ≈

1 x 150 W HIT (160 W Psys)

LED 120 / 150 W ≈

2 x 70 W HIT (159 W Psys)

LED 165 W ≈

2 x 150 W HIT (320 W Psys)

LED 220 W ≈

1 x 400 W HIE (440 W Psys)

982265.003	L 253, B 90, H 157	INDUSTRIAL HALL mini	
982817.003	L 366, B 127, H 226	INDUSTRIAL HALL midi	
982834.003	L 409, B 127, H 229	INDUSTRIAL HALL maxi	

Refractor: plastic			Price Category 21
982267.000	D 315, H 188	INDUSTRIAL HALL mini	
982115.000	D 570, H 343	INDUSTRIAL HALL midi	
982115.020	D 570, H 343	INDUSTRIAL HALL maxi   INDUSTRIAL HALL HT maxi	

Reflector: alumin	nium		Price Category 21
982266.004	D 180, H 70	INDUSTRIAL HALL mini	
982114.004	D 327, H 150	INDUSTRIAL HALL midi	
982338.004	D 380, H 194	INDUSTRIAL HALL maxi   INDUSTRIAL HALL HT maxi	



Ceiling and wall mounting bracket









INDUSTRIAL HALL maxi

INDUSTRIAL HALL HT maxi





## Highbay luminaires | INDUSTRIAL HALL

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K03

Operating range: -30°C to +50°C Operating range HT: -10°C to +65°C

Robust housing made of die-cast aluminium with eye ring, powder coated. Vertical cooling ribs ensure constant heat dissipation for optimal thermal management. Refractor: PMMA, transparent. Primary light control with high-performance wide-area LED. Diffuser made of clear, non-reflecting, single pane safety glass (toughened glass). Easy to install thanks to 1-point suspension. With power cord (1.5 m). Dimming range 10% to 100%.

 $\forall$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

## Suitable for chain or steel cable suspension (to be provided on site).

Available colour: 3 = black

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency <sup>#</sup> [lm/W]	<b>₹</b> 0	UGR	Lighting control
Highbay luminaires	with refractor							Price Category 21
INDUSTRIAL HALL	mini .							
921717.003	D 315, H 356	840	5350	40	134	60	17,7	on/off
921717.003.76	D 315, H 363	840	5350	40	134	60	17,7	DALI
921718.003.1	D 315, H 356	830	9200	80	115	60	19,3	on/off
921718.003	D 315, H 356	840	10100	80	127	60	19,9	on/off
921718.003.76	D 315, H 358	840	10100	80	127	60	19,9	DALI
INDUSTRIAL HALL	midi .							
921704.003	D 570, H 509	840	11700	85	138	69	12,7	on/off
921704.003.76	D 570, H 509	840	11700	85	138	69	12,7	DALI
921705.003	D 570, H 509	840	16400	120	137	70	14,1	on/off
921705.003.76	D 570, H 509	840	16400	120	137	70	14,1	DALI
921706.003	D 570, H 509	840	21500	165	131	69	15	on/off
921706.003.76	D 570, H 509	840	21500	165	131	69	15	DALI
INDUSTRIAL HALL	maxi							
921709.003	D 570, H 521	840	33300	220	152	67	17,4	on/off
921709.003.76	D 570, H 521	840	33300	220	152	67	17,4	DALI
921709.003.2.76	D 570, H 521	850	33800	220	154	67	17,4	DALI
INDUSTRIAL HALL	HT maxi							
921712.003	L 581, B 570, H 461	840	18600	150	124	67	15,3	on/off



**LED 40 W ≈** 1 x 70 W HIT (84 W Psys)

LED 80 / 85 W ≈

1 x 150 W HIT (160 W Psys)

LED 120 / 150 W ≈

2 x 70 W HIT (159 W Psys)

LED 165 W ≈

2 x 150 W HIT (320 W Psys)

LED 220 W ≈

1 x 400 W HIE (440 W Psys)



Ceiling and wall mounting bracket

Exchange Brack	ets for alternative mounting r	Price Category 21	
982265.003	L 253, B 90, H 157	INDUSTRIAL HALL mini	
982817.003	L 366, B 127, H 226	INDUSTRIAL HALL midi	
982834.003	L 409, B 127, H 229	INDUSTRIAL HALL maxi	



INDUSTRIAL HALL mini



INDUSTRIAL HALL midi



INDUSTRIAL HALL maxi



INDUSTRIAL HALL HT maxi



## Highbay luminaires | INDUSTRIAL HALL

Type of protection: IP 65

Protection class: I

Impact protection: IK08, IK07 (HT)

Operating range: -30°C to +50°C Operating range HT: -10°C to +65°C

Robust housing made of die-cast aluminium with eye ring, powder coated. Vertical cooling ribs ensure constant heat dissipation for optimal thermal management, Reflector made of matt aluminium, Primary light control with high-performance wide-area LED. Diffuser made of clear, non-reflecting, single pane safety glass (toughened glass). Easy to install thanks to 1-point suspension. With power cord (1,5 m). Dimming range 10% to 100%.

 $\ensuremath{\mathbb{V}}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

## Suitable for chain or steel cable suspension (to be provided on site).

Available colour: 3 = black

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	<b>√</b> a [°]	UGR	Lighting control
Highbay luminaires	with reflector							Price Category 21
INDUSTRIAL HALL	mini							
921715.003	D 248, H 238	840	5150	40	129	93	25,9	on/off
921715.003.76	D 248, H 245	840	5150	40	129	93	25,9	DALI
921716.003.1	D 248, H 238	830	8900	80	112	92	27,8	on/off
921716.003	D 248, H 238	840	9800	80	123	93	28,2	on/off
921716.003.76	D 248, H 240	840	9800	80	123	93	28,2	DALI
INDUSTR <b>I</b> AL HALL	midi							
921701.003	D 360, H 318	840	12200	85	144	86	23,7	on/off
921701.003.76	D 360, H 318	840	12200	85	144	86	23,7	DALI
921702.003	D 360, H 318	840	16900	120	141	87	25,1	on/off
921702.003.76	D 360, H 318	840	16900	120	141	87	25,1	DALI
921703.003	D 360, H 328	840	22800	165	139	87	26	on/off
921703.003.76	D 360, H 328	840	22800	165	139	87	26	DALI
INDUSTR <b>I</b> AL HALL	maxi							
921708.003	D 405, H 372	840	31000	220	141	85	23,9	on/off
921708.003.76	D 405, H 372	840	31000	220	141	85	23,9	DALI
921708.003.2.76	D 405, H 372	850	31400	220	143	85	23,9	DALI
INDUSTRIAL HALL	HT maxi							
921711.003	L 499, B 405, H 312	840	17200	150	115	85	21,8	on/off





Comparison

LED vs. conventional lamps

LED 40 W ≈

1 x 70 W HIT (84 W Psys)

LED 80 / 85 W ≈

1 x 150 W HIT (160 W Psys)

LED 120 / 150 W ≈

2 x 70 W HIT (159 W Psys)

LED 165 W ≈

2 x 150 W HIT (320 W Psys)

LED 220 W ≈

1 x 400 W HIE (440 W Psys)

Exchange Brack	ets for alternative mounting r	nethod	Price Category 21
982265.003	L 253, B 90, H 157	INDUSTRIAL HALL mini	
982817.003	L 366, B 127, H 226	INDUSTRIAL HALL midi	
082834 003	L 400 B 127 H 220	INDUSTRIAL HALL mayi	



Ceiling and wall mounting bracket



INDUSTRIAL HALL mini



INDUSTRIAL HALL midi



INDUSTRIAL HALL maxi



INDUSTRIAL HALL HT maxi



Easy to install thanks to 1-point suspension.





## INDUSTRIAL HALL EVO

Highbay luminaires

## ARCHITECTURE

- Long service life: Housing made of special plastic-graphite compound for optimum thermal management.
- **Safe:** Luminaire with limited surface temperature in accordance with EN 60598-2-24.
- **Certified:** Qualified for use in the food and drink industry.

## LIGHTING DESIGN

- Powerful: Highly efficient up to 166 lm/W.
- **Variable:** MultiLumen 3-step adjustable luminous flux.
- **Anti-glare:** Two-component optical system for glare-free lighting up to UGR ≤ 19.

## INSTALLATION

- Easy installation: Easy to install thanks to 1-point suspension.
- Advantageous: On/Off: Integrable movement sensor as an accessory available.



## Highbay luminaires | INDUSTRIAL HALL EVO

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Operating range: -30°C to +50°C.

Housing made of special plastic-graphite compound for optimum thermal management, Specially matched 2-component polycarbonate optical system. Maximum efficiency and glare-free lighting up to UGR  $\leq$  19, Easy to install thanks to 1-point suspension, On/Off: Integrable movement sensor as an accessory available.

 $\ensuremath{\mathbb{V}}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

## Suitable for chain or steel cable suspension (to be provided on site).

Available colour: 3 = black

MultiLumen: 3 steps adjustable luminous flux. Factory setting is the highest luminous flux.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]		UGR	Lighting control
Highbay luminaires								Price Category 21
921533.003.76	D 380, H 150	840	18500	112	166	61	19	DALI
921533.003 .Q*	D 380, H 150	840	1220023200	76151	161	55	17,419,8	on/off

<sup>\*</sup> MultiLumen: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.

#### Accessories | Movement sensor for on/off version

Stand-alone movement sensor for presence-dependent lighting control with built-in daylight sensor. Presence detection using passive IR element for installation heights from 3 to max. 15 m. Detection range: 360° up to 10 m. Operating range: -30°C to +40°C. Quick and easy adjustment of the most important parameters by remote control (order separately: 982697.002).

Movement senso	r for on/off version	Price Category 21
982681.002	D 55, H 65	

Remote contol			Price Category 21
982697.002	L 175, B 56, H 28	Remote control for movement sensor: 982681.002	





## Comparison LED vs. conventional lamps

#### LED 76 W ≈

1 x 150 W HIT (160 W Psys)

#### LED 112 W ≈

1 x 250 W HIE (275 W Psys)

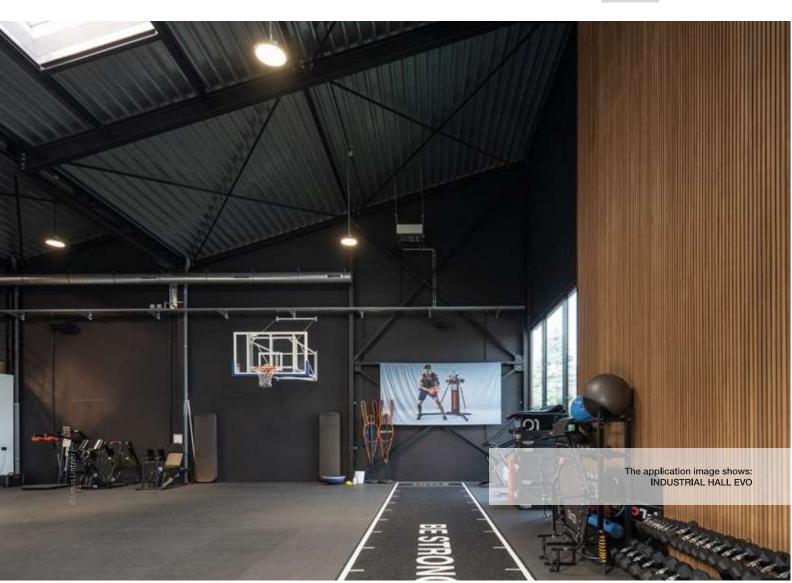
#### LED 151 W ≈

2 x 150 W HIT (320 W Psys)

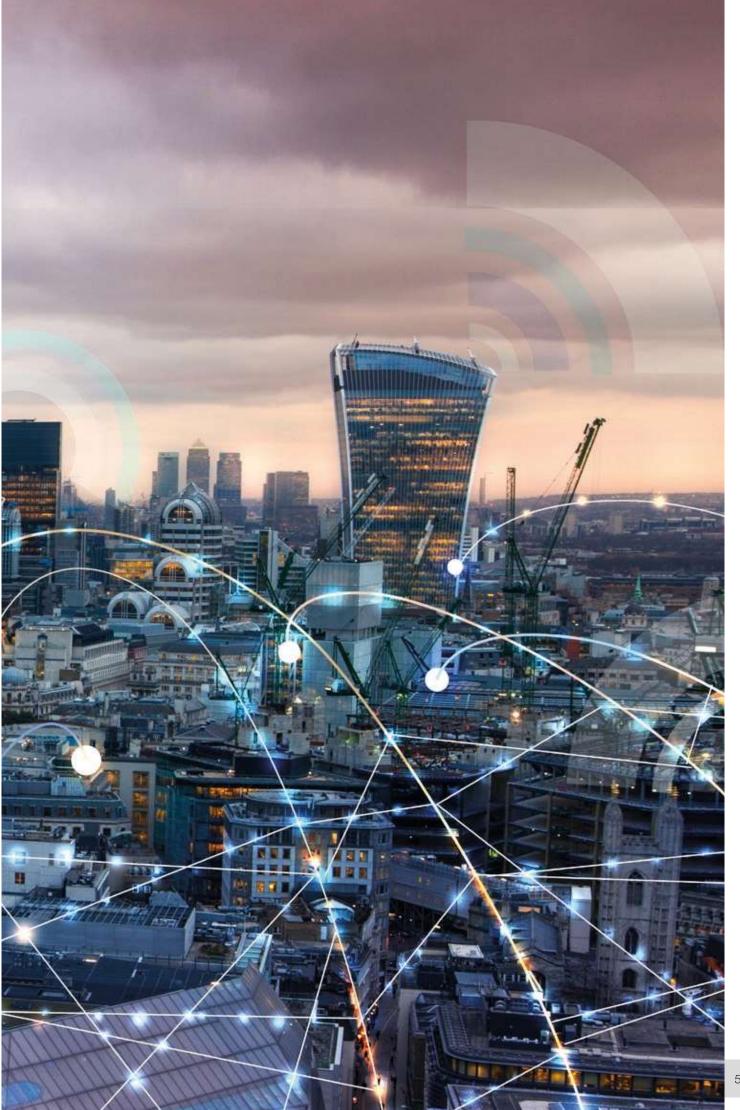


















light control +3 Economy Multi DALI 572-573



SIDELITE ECO HCL complete package 574-575



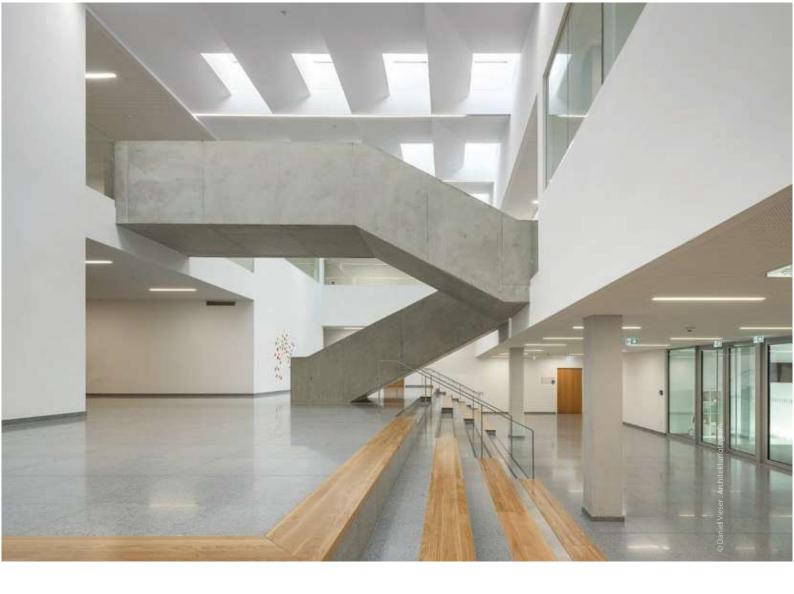
Casambi smart+free 576-581



light control +3 Professional IoT 582-585



Stand-alone controllers 586-591



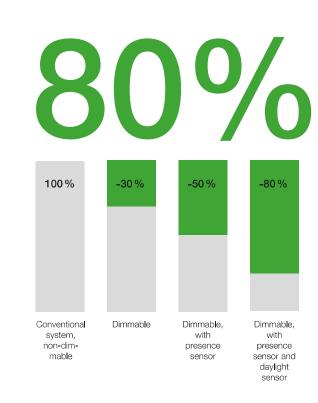
## LIGHT MANAGEMENT SYSTEMS

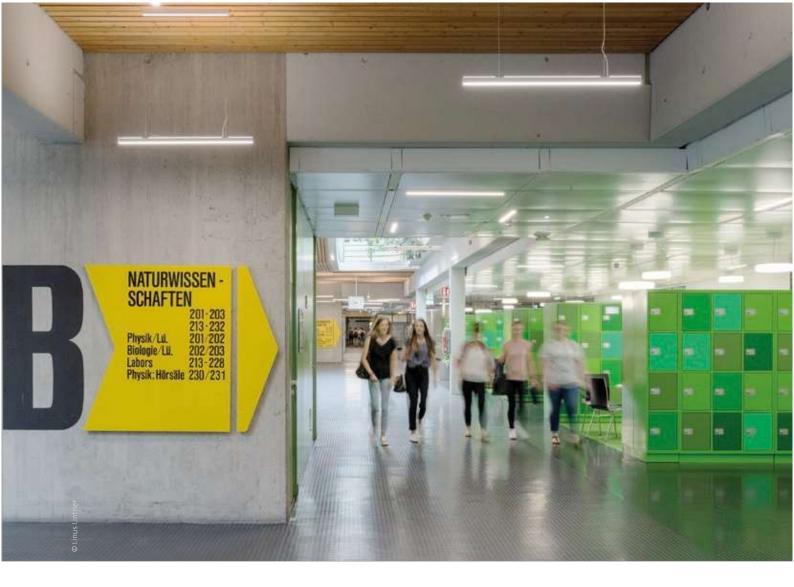
Overview

Modern lighting management ensures a significant increase in energy efficiency, economy and comfort and is an indispensable part of responsible and resource-saving corporate and household management. RZB Lighting has always considered lighting management as an elementary part of a holistic planning approach and has long been considered a reliable

part of a holistic planning approach and has long been considered a reliable partner in this area as well, offering consistently high quality products and advice.

- Daylight-dependent control
- Movement/presence detection
- Energy-saving
- Reduction of CO<sub>2</sub> emissions
- Timer and calendar functions
- Human Centric Lighting (HCL)
- Extends service life of lighting system





# HUMAN CENTRIC LIGHTING (HCL)

Feel better, be more efficient.

During evolution humans have developed a complex system of internal timers, the so-called circadian system by the perception of light and dark, cold and warm, as well as by the change of seasons, with daylight being the natural timer for this rhythm.

Only a few years ago scientists discovered in the eye's retina those cells which are not required for seeing, but are setting our internal timer by suppressing or distributing the hormone melatonin. Now chronobiologists, lighting designers and architects have the chance to decisively improve our living conditions by using dynamic light.

Biologically effective light in "tunable white" versions aims to support the hormone control process by simulating the light colour and intensity of the natural course of daylight.

Changing light scenes in the dynamic rhythm of daylight can have an extremely positive influence on wellbeing.

## Health

HCL strengthening the biological rhythm of human beings and fostering well-being and good health.

## Vitality

HCL creating a stimulating light to increase vitality and quality of life.

## Activity

HCL increasing in educational institutions and workplaces the performance and ability of focusing.

#### Well-beeing

HCL avoiding sleep disorder, stabilising patients in hospitals and nursing homes.

HCL-compatible products are marked with the following icon:

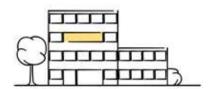


Economy Multi DALI



## light control +3 Economy Multi DALI

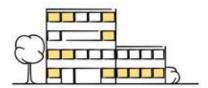
The unbeatable price/performance winner for smaller installations. The system combines simple commissioning via smartphone, low wiring effort and flexible configuration and is therefore ideal for **group offices**, **conference rooms and classrooms**. Programmable buttons and sensors can also be integrated via DALI connections in order to achieve even greater energy savings. The system has an integrated timer and can therefore be used to set up HCL.



# Casambi and Casambi free

#### Casambi smart+free

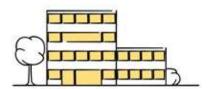
The wireless Bluetooth® light management system for maximum functions and configuration options. Casambi smart+free solutions are particularly suitable for applications where wireless networking is required. The modules are also suitable for retrofitting in existing luminaires, as only a power supply is required. The module is already integrated into luminaires with the article number ending .730. With accessories from the extensive Casambi ecosystem (starting on P. 576), the system can be configured according to individual needs. The integration here is very intuitive and can be completed by users without prior knowledge in just a few minutes.



## light control +3 Professional IoT

The future of automated light control: RZB's IoT system. Daylight-dependent control and dynamic light control up to circadian daylight simulation in Human

Centric Lighting (HCL) are easy to implement. In addition, the control system can be easily networked to make luminaire data available to other systems. Automatic switch-off functions save energy and money. All this can be configured across several rooms and floors.

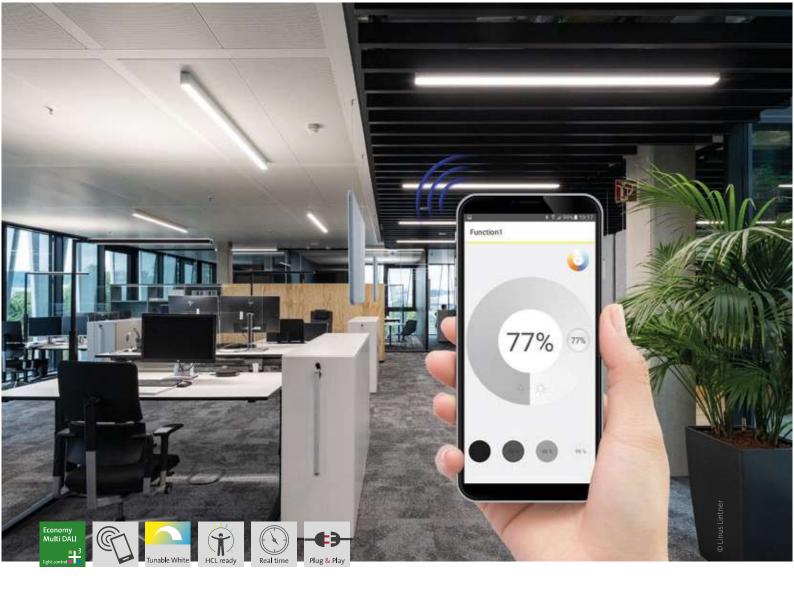


### You still haven't found the right system for you?

Along with the systems shown here, we would also be happy to create a customised control system for your project. Please contact your designated on-site sales employee (see inside of the cover) or contact our Planning department via e-mail at Ims@rzb-leuchten.de or by phone at +49 951/79 09-396.



	light control +³ Economy Multi DALI	Casambi smart+free	light control +³ Professional IoT
	Economy Multi DALI light control = 13	smart + free	Professional IoT
Application	Single room	Wireless networking	Building control
Can be combined with	smart + free		counts and smart_free
Communication	wired	wireless	wired
Infrastructure requirements	L, N, PE, DA, DA (5 wires cable)	L, N, PE (3 wires cable)	L, N, PE, DA, DA (5 wires cable)
Commissioning	by electrician	by electrician	RZB service technician
Configuration	App, Plug&Play	App, Remote access	PC-Tool, Remote access
Operation	Switches, Buttons, App	Switches, Buttons, App	Switches, Buttons, App, Web access
Number of luminaires (1 EB) (Number of luminaires depends on on the number of EB in the luminaire)	32	up to 64 depending on the module	128
Number of sensors/push-button coupler (presence, motion)	4	1 per module	126
Dimmable	✓	✓	✓
Motion/presence detection	✓	✓	✓
Daylight-dependent control	✓	✓	✓
Scenes/Groups	✓	✓	✓
Timer/Calendar functions	✓	✓	✓
HCL / Tunable White	✓	✓	✓
RGB		✓	✓
Network integration		✓	✓
Remote access: programming, operation, maintenance		✓	✓
IoT ready		✓	✓
Predictive maintenance, monitoring, read out luminaire data			✓
Beacon for indoor navigation, tracking, asset management		<b>✓</b>	
Luminaires with the reference number extension	.76 (DAL <b>I</b> )	.730 (smart+free)	.76 (DALI)
More information on page	572	576	582



## LIGHT CONTROL +3 ECONOMY MULTI DALI

Light management

## ARCHITECTURE

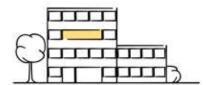
- Environmentally friendly: Energy savings up to 80% (compared to manual switching).
- **Sustainable:** Extends service life of lighting system.
- Versatile: Lighting control with Bluetooth® app connection.

## LIGHTING DESIGN

- Compatible: Suitable for daylight- and presence-dependent lighting.
- **Flexible:** Circadian daylight simulation (HCL).
- **Individual:** Different operating modes (on request).
- Plannable: Integrated real-time clock.

## INSTALLATION

- Easy installation: Plug & Play.
- Powerful: Up to 32 DALI converters.
- Suitable for integration: Up to 4 sensors.
- Straightforward: Commissioning via app.











Google Play

Osram BT Config App (for configuration) download now!

Osram BT Control App (for operation) download now!



#### Light management | light control +3 Economy MULTI DALI

Type of protection: IP 20 Protection class: I

Light management system with DALI interface. Housing: metal, powder-coated; for universal mounting; ready to plug in (GST15 plug included). Control and adjustment of all setting options for the lighting by smartphone. Integrated clock for time-controlled brightness or colour temperature control (HCL). Adaptable HCL characteristic with up to 24 points. Daylight-dependent control and presence-dependent light control. Pushbutton interface for separate operation of brightness and colour temperature. Control of standard white or tunable white light in accordance with DALI device type 8 (DT8). One DALI output channel (broadcast or groupcast). Suitable for up to 32 DALI luminaires. Outputs with electronically reversible overtemperature, short-circuit and overload protection. Integrated DALI bus supply. Length of the DALI control cable up to 300 m. Supports up to 4 DALI sensors (982757.002) and pushbutton couplers (982755.002). Including a light and presence sensor and an installation housing. Other sensors and pushbutton couplers are available as accessories and must be ordered separately. Up to 50 m cable length to button. Scenarios can be called up via pushbutton coupler. Wireless firmware update by Bluetooth® possible.

Available colours (X): 2 = white, 3 = black

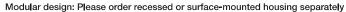
Reference number	Dimensions [mm]	Interface	Number of luminaires (EB)	Number of sensors that can be	Functions
light control +3 Econ	omy MULTI DALI				Price Category 21
981903.00X.2S2	L 206, B 106, H 30	DALI	32	4	Switchable, Dimmable, Movement / presence sensor, Daylight sensor, Scenes (individual luminaire/ballast addressing), Tunable White, HCL, Real time dock



## Accessories | light control +3 Economy | Professional

Type of protection: IP 20 Protection class: III

DALI-2 certified passive infrared sensor (PIR) to detect movement and brightness. Installation height: 2-5 m. Presence detection range adjustable via integrated shutters between 40° and 90°. Light sensor range: 0-800 lx (measured at the sensor). Direct connection to DALI bus. Power is supplied from the DALI line (no separate power supply needed). Function display with two-colour LED. Housing of nonflammable, halogen-free plastic (polycarbonate). Ceiling installation or ceiling mounting with accessories.



Available colours: 2 = white









## Accessories | light control +3 Economy | Professional

L 65, B 65, H 34

Type of protection: IP 20 Protection class: III

08-6093.002

DALI-2 certified push-button coupler. Direct connection to DALI bus. Power is supplied from the DALI line (no separate power supply needed). 4 potential-free inlets for connection to commercially available

into the departure pewer dapping needed in peteritian need interest of definition to definition any available
switches, Installation in flush-mounted box, Housing: plastic.
Available colours: 2 = white

Push-button coupler for connecting 4 on-site push-buttons Price Category 21



The RZB light control +3 light management system must be commissioned on site by an RZB service technician.

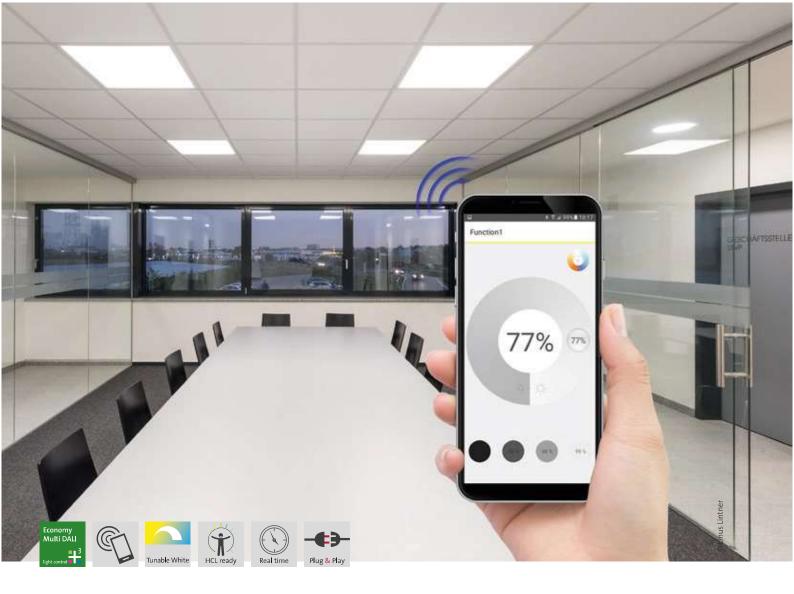
#### Commissioning

06566









## HCL COMPLETE PACKAGE

Light management

The HCL (Human Centric Lighting) complete package consisting of 4 recessed lay-in SIDELITE ECO luminaires with tunable white function (TW 2700 K - 6500 K) and control including light and presence sensor, simulates the natural course of daylight in the sun and thus supports activity and well-being. Recessed ceiling sensor included.

## The HCL complete package can be flexibly adjusted to your project:

A total of up to 32 luminaires (each 1 x EB DALI®) can be controlled. In addition, up to 4 sensors (type 982757.002) can be connected (with the ceiling installation housing 01-8613.002). (1 sensor is included in the scope of delivery.)

## **ARCHITECTURE**

- **Environmentally friendly:** Energy savings up to 80% (compared to manual switching).
- **Sustainable:** Extends service life of lighting system.
- Versatile: Lighting control with Bluetooth® app connection.

## LIGHTING DESIGN

- Compatible: Suitable for daylight- and presence-dependent lighting.
- **Flexible:** Circadian daylight simulation (HCL).
- **Individual:** Different operating modes (on request).
- Plannable: Integrated real-time clock.

## INSTALLATION

- Easy installation: Plug & Play.
- Powerful: Up to 32 DALI converters.
- Suitable for integration: Up to 4 sensors.
- ${\bf Straightforward:}$  Commissioning via app.



Reference

99050.1169

## HCL complete package - Module 600

1 x light control +3 Economy MULTI DALI

1 x Light and presence sensor incl. installation housing
4 x SIDELITE ECO (312273.002.2.76AB): Lay-in luminaires for grid ceilings
(Frame: aluminium, powder-coated. Diffuser made of non-yellowing plastic microprismatic (suitable for use in environments with computer screens in accordance with EN 12464-1). Lightguide and diffuser made of non-yellowing plastic (PMMA). Lateral light emission thanks to LED. External driver. Tunable white versions, dynamically adjustable from 2700 K to 6500 K.)

#### HCL complete package - Module 625

Price Category 21

Price Category 21

99050.1167

1 x light control +3 Economy MULTI DALI 1 x Light and presence sensor incl. installation housing

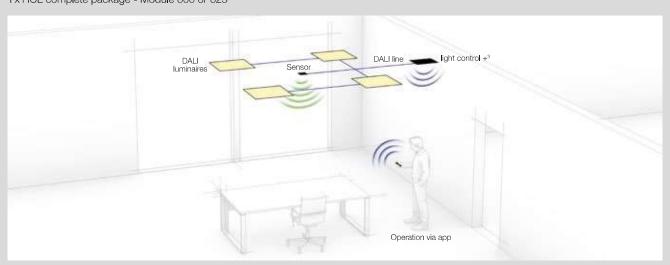
1 x Light and presence sensor incl. Installation nousing
4 x SIDELITE ECO (312275.002.2.76): Lay-in luminaires for grid ceilings
(Frame: aluminium, powder-coated. Diffuser made of non-yellowing plastic microprismatic (suitable for use in environments with computer screens in accordance with EN 12464-1). Lightguide and diffuser made of non-yellowing plastic (PMMA). Lateral light emission thanks to LED. External driver. Tunable white versions, dynamically adjustable from 2700 K to 6500 K.)



## PROJECT EXAMPLE: HCL in a single office (25 m²) with a grid ceiling

It couldn't be simpler than this! You only require ONE HCL complete package: purchase - install - finished!

1 x HCL complete package - Module 600 or 625



## PROJECT EXAMPLE: HCL in a classroom (50 m²) with a grid ceiling

Can be expanded as needed! Simply expand ONE HCL complete package with the desired individual components.

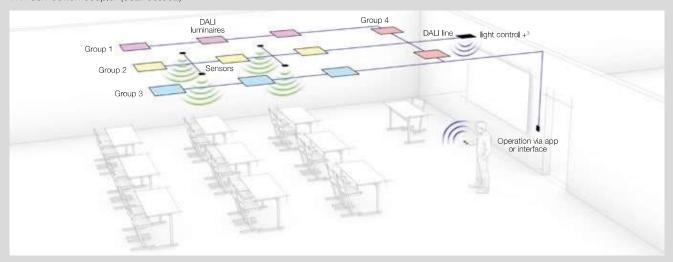
## Ideal for renovation work in schools and educational buildings!

1 x HCL complete package - Module 600 or 625

7 x Additional luminaires Sidelite ECO (312273.002.2.76 or 312275.002.2.76)

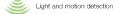
3x Additional sensors (982757.002 with 01-8613.002)

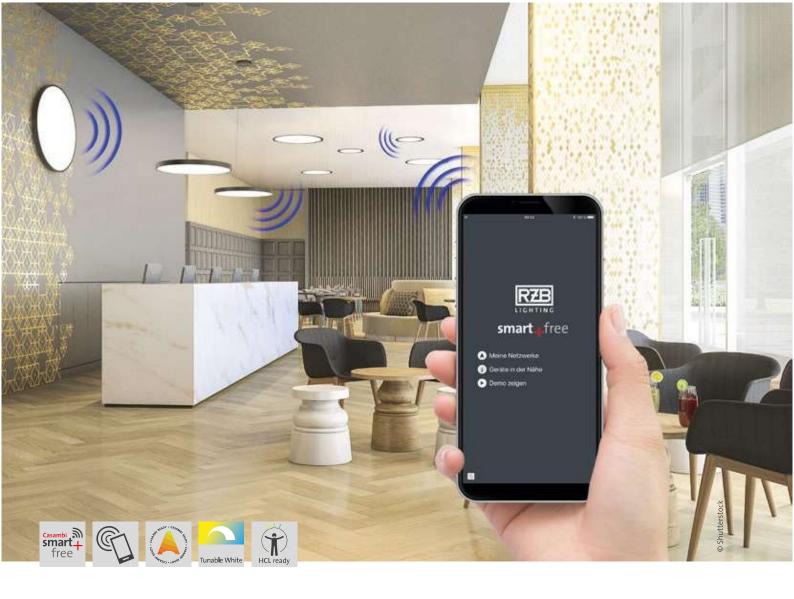
1 x Push-button coupler (982755.002)





Bluetooth® communication





## CASAMBI SMART+FREE

Light management

## ARCHITECTURE

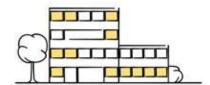
- Connected: Light management system for wireless control of lighting by Bluetooth® Low Energy.
- **Design-oriented:** Thanks to its small size it is ideal for luminaire integration.
- **Sustainable:** 3-wire cable sufficient, without additional control wire.

## LIGHTING DESIGN

- **Compatible:** Suitable for daylight- and presence-dependent lighting.
- **Flexible:** Circadian daylight simulation (HCL).
- **Individual:** Operation using standard pushbuttons, smartphones and tablet.
- **Powerful:** Tunable white and RGB/RGBW applications can be implemented.

## INSTALLATION

- Easy installation: Plug & Play.
- Powerful: Up to 32 DALI converters.
- Suitable for integration: Up to 4 sensors.
- Straightforward: Commissioning via app.









Casambi App - download now!



## Light management | Casambi smart+free

Type of protection: IP 20 Protection class: II

Bluetooth® controllable Casambi module for wireless networking and operating of up to 8 DALI luminaires by broadcast control. The module is suitable for DALI, RGB (DT6), RGBW (DT6) and Tunable White (DT8) luminaires. Profile configuration by the user. Configuration app for Android/iOS available for download free of charge, A wireless netowrk with up to 250 control modules can be set up. Thanks to its small size it is ideal for luminaire integration. Housing: plastic.

Available colour: 2 = white





Reference Dimensions number [mm]

 DALI-module
 Price Category 21

 982767.002
 L 76, B 26, H 23
 DALI, RGB (DT6), RGBW (DT6) and Tunable White (DT8)

## Light management | Casambi smart+free

Type of protection: IP 20 Protection class: II

Bluetooth® controllable Casambi module for wireless networking and operating of trailing edge dimmer luminaires. Control possible using Android / iOS devices. Free app available for download. A wireless network with up to 250 control modules can be set up. Thanks to its small size it is ideal for luminaire integration. Housing: plastic.

Available colour: 2 = white

Reference Dimensions number [mm]

 Trailing edge dimmer
 Price Category 21

 982377.002
 L 40, B 36, H 14
 1 converter dimmable using conventional trailing edge dimmer can be connected





## Light management | Casambi smart+free

Type of protection: IP 20

Bluetooth®-controllable, Casambi-enabled 4-channel PWM dimmer for LED loads with constant voltage, e.g. LED strips and LED modules with constant voltage. A 12-24 VDC power supply (not dimmable) is required for the supply. The module can control up to four channels and is therefore suitable for RGBW and TW (Tunable White) applications. The maximum combined output current is 6 A and can be freely divided between 1 to 4 channels. Configuration app for Android/iOS available for download free of charge. Thanks to its small size it is ideal for luminaire integration. Housing: plastic.

Available colour: 2 = white

Reference Dimensions number [mm]

4-channel PWM dimmer Price Category 21

982677.002 L 73, B 30, H 18 Up to four channels 12-24 V individually controllable







### Light management | Casambi smart+free

Type of protection: IP 20 Protection class: II

Bluetooth® controllable Casambi-capable DALI controller for wireless networking and operating of DALI-2 input devices (e.g. sensors) or up to 64 DALI drivers by broadcast control. The module requires a suitable external DALI power supply or is supplied by DALI drivers / DALI sensors with integrated DALI power supply.Profile configuration by the user, Configuration app for Android/iOS available for download free of charge. A wireless netowrk with up to 250 control modules can be set up. Thanks to its small size it is ideal for luminaire integration, Housing: plastic,

Available colour: 2 = white



Reference	Dimensions
number	[mm]

DALI controller		Price	Category 21
982618.002	L 40, B 36, H 14		



DALI power supply			Price Category 21
982777.002	L 81, B 30, H 15	Power supply for up to 32 devices.	
982744.002	L 175, B 42, H 32	Power supply for up to 64 devices.	



### Light management | Casambi smart+free

Type of protection: IP 20 Protection class: II

Bluetooth® gateway module for wireless connection of luminaires to a DALI controller. Up to 64 devices per module can be mapped from the wireless network to a DALI controller. Configuration app for Android/iOS available for download free of charge, A DALI power supply is required for operation. A wireless network with up to 250 control modules can be set up, Housing; plastic,

Available colour: 2 = white

Reference Dimensions number [mm]

Casambi-DALI gatev	vay		Price Category 21
982618.012	L 40, B 36, H 14	Integration into a wired DALI control system.	



### Accessories | Casambi smart+free

Type of protection: **IP 66** Protection class: II

 $\label{thm:loss} \mbox{Housing plastic. Installation box including terminals and strain relief.}$ 

Available colour: 9 = grey

Reference Dimensions number [mm]

 Installation box
 Price Category 21

 982390.009
 L 85, B 85, H 51
 For a Casambi smart+free module 982377.002, 982677.002, 982618.002/012.

 982391.009
 L 85, B 85, H 51
 For a Casambi smart+free module 982767.002.



### Accessories | Casambi smart+free

Type of protection: IP 20 Protection class: II

Casambi mart+free Bluetooth® button coupler for the wireless operation of luminaires. Conventional pushbutton can be connected on site. Installation in flush-type boxes.

Housing: plastic.

Available colour: 2 = white

Reference Dimensions number [mm]

Push-button coupler Price Category 21

982767.012 L 76, B 26, H 23 1 pushbutton provided by the customer can be connected.





### Accessories | Casambi smart+free

Type of protection: IP 20 Protection class: II

Casambi mart+free Bluetooth® button coupler for the wireless operation of luminaires. Conventional pushbutton can be connected on site. Installation in flush-type boxes. Housing: plastic,

Available colour: 2 = white

Reference Dimensions

Push-button coupler Price Category 21

982379.002 D 53, H 21 Up to 4 pushbuttons provided by the customer can be connected.



### Accessories | Casambi smart+free

Battery-free, maintenance-free Bluetooth® switch for Casambi smart+free luminaires. The energy for the signal transmission is generated by the button being pressed, which means that no mains voltage or batteries are required. The included frame (Jäger Direkt Opus 55 Inform) can be replaced by switch programs (internal dimensions 55x55 mm) from various manufacturers. Depending on the chosen screen, 2 or 4 buttons can be freely programmed. The colour temperature/dimming level of individual luminaires, groups or scenes can be controlled. The configuration is done directly in the app.

Available colour: 2 = white

Reference Dimensions number [mm]

Wireless transmitter: EnOcean® Price Category 21

982619.002 L 81, B 81, H 14 2 or 4 buttons can be freely programmed.



### Accessories | Casambi smart+free

Battery-operated, wireless light switch and remote control system for controlling Casambi smart+free luminaires. Enables direct access to all the important functions of the Casambi smart+free lighting control. The 4 freely programmable buttons can be configured within the app. The luminaires' colour temperature and the dimming level can be adjusted using the two rockers.

Technical features:

Range: up to 60 metres in the open, battery (included): CR2430 lithium button cell, battery life: 2-5 years, depending on use.

Available colours (X): 2 = white, 3 = black

Reference Dimensions number [mm]

Wireless transmitter Price Category 21
982620.00X L 90, B 90, H 12 4 buttons freely programmable, dimming and changing the colour temperature.







### Accessories | Casambi smart+free

Type of protection: IP 20

Casambi smart+free Bluetooth® sensor for wireless control of Casambi smart+free luminaires. Intelligent presence control and daylight sensor. Detection range approx. 8 m with installation height of 3 m. Housing: plastic.

Available colour: 2 = white

Reference Dimensions number [mm]

Light and presence sensor (recessed) for installation heights up to 4 m

Price Category 21

Ceiling cut out DA 74 mm, HEL 56 mm D 85, H 73



Plastic surface-mounted housing for ceiling mounting of a Casambi smart+free sensor.

Surface mounted housing for light and presence sensor

Price Category 21

982617.002 D 95, H 65



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### Accessories | Casambi smart+free

Type of protection: IP 54

Protection class: II



Casambi smart+free Bluetooth® sensor for surface mounting for installation heightsbetween 5 m and 16 m. The sensor has a presence detection range of 30 m x 19 m. Externally adjustable telescopic light sensor for application-based light measurement. Optional expansion of coverage with additional Casambi sensors. Detection range can be restricted by louvre covers. Bluetooth® communication between sensor and other Casambi devices. Configuration and control using Android / iOS device. Free app available for download.

Available colour: 2 = white

Reference number Dimensions

Light and presence sensor (surface mounted) for installation heights of 5-16 m

Price Category 21

D 101, H 76 982930.002



### Accessories | Casambi smart+free

Type of protection: IP 20

Protection class: I

Casambi smart+free Bluetooth® sensor for wireless control of Casambi smart+free luminaires. Intelligent presence control and daylight sensor, Multi adaptor for 3-circuit tracks 230 V. Detection range up to 7 m. Housing: plastic.

Available colours (X): 2 = white, 3 = black

Reference number [mm]

Light and presence sensor with multi-adapter for 3-phase 230 V tracks for installation heights from 2.4 - 5 m  $\,$ 

Price Category 21

701122.00X.19 L 72, B 39, H 86









### Accessories | Casambi smart+free

Type of protection: IP 20

The Casambi Time-Backup module stores the time, date, day of the week, sunrise and sunset in a Casambi network for 19 h in the event of a power cut. After a power cut, the Time-Backup module sends the required data to the Casambi network again for synchronisation. The lithium-ion battery is charged via the supplied adapter cable. Configuration app for Android/iOS available for download free of charge, Housing: plastic,



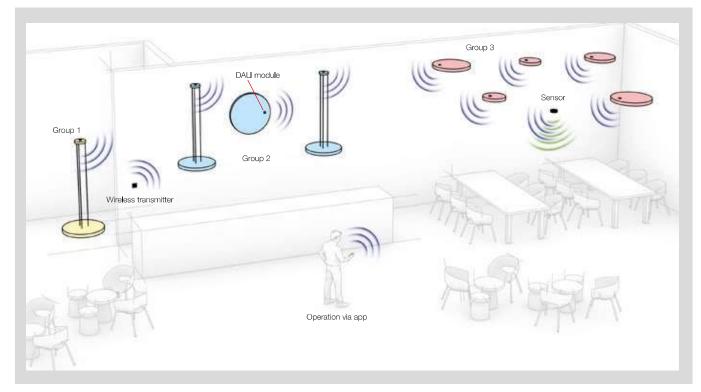


Available colour: White, black

Reference Dimensions [mm] number

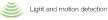
Memory module in event of power cut Price Category 21

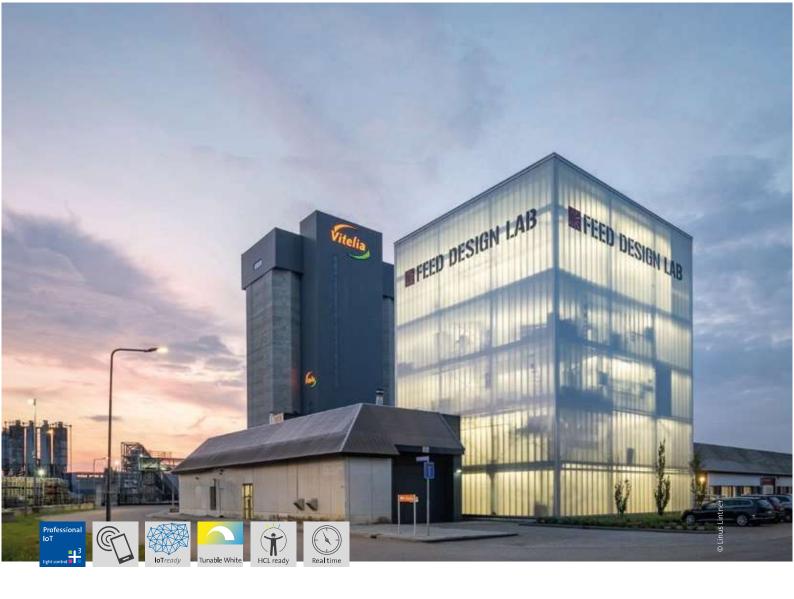
L 73, B 30, H 18 982809.000





Bluetooth® communication





# LIGHT CONTROL +3 PROFESSIONAL IOT

Light management

### ARCHITECTURE

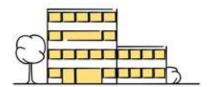
- Environmentally friendly: Energy savings up to 80% (compared to manual switching).
- **Sustainable:** Extends service life of lighting system.
- **Versatile:** Several systems can be networked, IoT integration also possible.
- **Versatile:** Smartphone and tablet operation possible (Android and IOS).

### LIGHTING DESIGN

- Plannable: DALI-2 certified controller.
- **Compatible:** Daylight-dependent and event-driven control with presence function of all groups.
- **Flexible:** Circadian daylight simulation (HCL).
- **Individual:** All connected DALI devices can be individually controlled.
- **Expandable:** Lights can be individually controlled using KNX.

### INSTALLATION

- Easy installation: DIN rail mounting (6 DU).
- Powerful: 2 DALI lines to 64 DALI converters.
- **Suitable for integration:** Up to 126 DALI-2 input devices.
- Straightforward: Simple browser-based commissioning interface and professional software available.





### Light management | light control +3 Professional IoT

Type of protection: IP 20 Protection class: II

DALI-2 certified controller to control up to 128 DALI luminaires (2 DALI lines of 64 DALI converters) and 126 input devices (sensors and pushbutton couplers). With integrated DALI power supply. Cloud connection/remote data access via integrated IoT gateway (optional). Can be integrated into a KNX building management system via optional KNX-Gateway, Can be set up via LAN or WLAN, For installation on DIN rails (6TE). Housing: plastic.

DAL

Available colour: 2 = white

DALI control

982754.002

Reference Dimensions Interface Number of number [mm] Interface Number of luminaires

L 106, B 91, H 62

Number of Number of Iuminaires DALI-2-Input-(EB) Devices that can be

126

128

connected

Functions

Movement / presence sensor, Dimmable, Real time clock, HCL, RGB applications, Switchable, Scenes (individual luminaire/ballast addressing), Daylight sensor, Daylight simulation, Tunable White



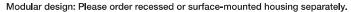
Price Category 21



### Accessories | light control +3 Economy | Professional

Type of protection: IP 20

DALI-2 certified passive infrared sensor (PIR) to detect movement and brightness. Installation height: 2-5 m. Presence detection range adjustable via integrated shutters between 40° and 90°. Light sensor range: 0-800 k (measured at the sensor). Direct connection to DALI bus. Power is supplied from the DALI line (no separate power supply needed). Function display with two-colour LED. Housing of non-flammable, halogen-free plastic (polycarbonate). Celling installation or ceiling mounting with accessories.



Available colour: 2 = white

Reference Dimensions number [mm]

Light and presence sensor for installation heights of 2-5 m

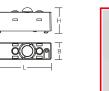
982757.002 L 48, B 15, H 20

Recessed housing for light and presence sensor Price Category 21
Ceiling cut out DA 68 mm

01-8613.002 D 80, H 36

Surface mounted housing for light and presence sensor

08-6093.002 L 65, B 65, H 34













## Accessories | light control +3 Professional

Type of protection: **IP 54** Protection class: II

DALI-2 certified passive infrared sensor (PIR) to detect movement and brightness. Installation height: 5-16 m. The sensor has a presence detection range of 30 m x 19 m. Externally adjustable telescopic light sensor for application-based light measurement. Power is supplied from the DALI line (no separate power supply needed). Housing of non-flammable, halogen-free plastic (polycarbonate).

Available colour: 2 = white

Reference Dimensions number [mm]

Light and presence sensor for installation heights of 5-16 m.

982813.002 D 101, H 76

Price Category 21





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### Accessories | light control +3 Economy | Professional

Type of protection: IP 20 Protection class: III

DALI-2 certified push-button coupler. Direct connection to DALI bus. Power is supplied from the DALI line (no separate power supply needed). 4 potential-free inlets for connection to commercially available switches. Installation in flush-mounted box. Housing: plastic.

Available colour: 2 = white

Reference Dimensions number [mm]

Push-button coupler for connecting 4 on-site push-buttons

Price Category 21

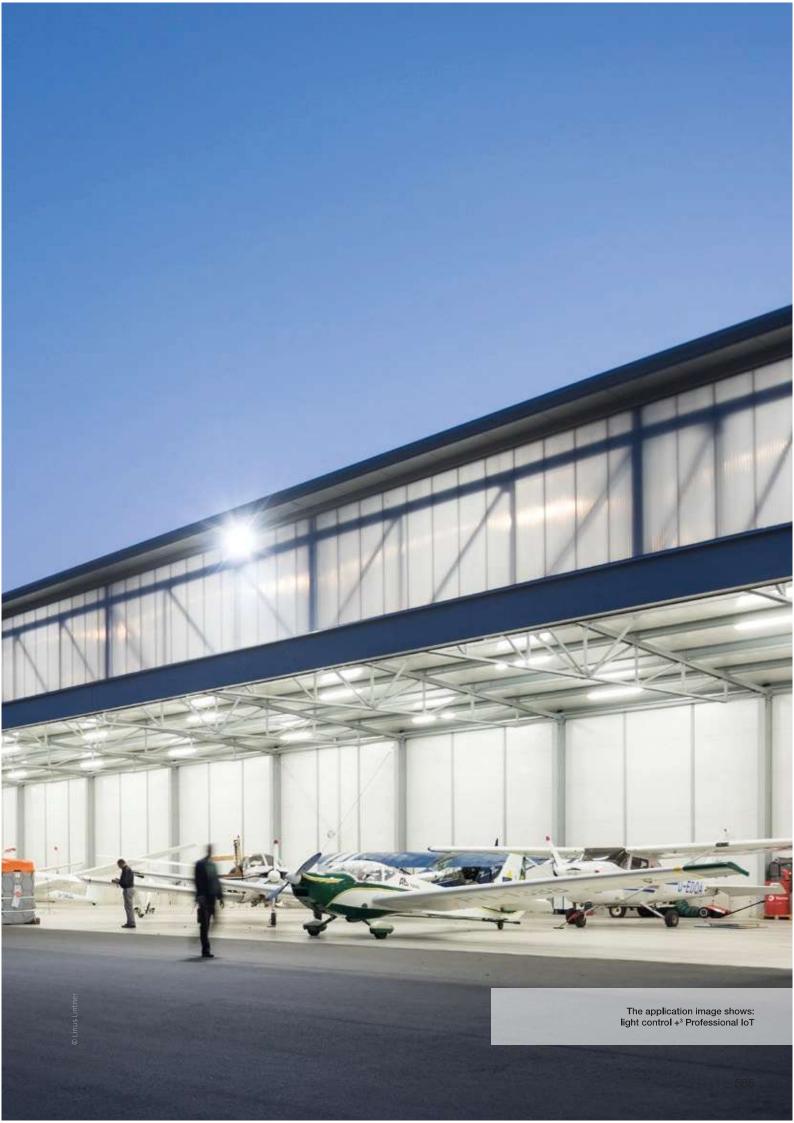
982755.002 L 43, B 43, H 21

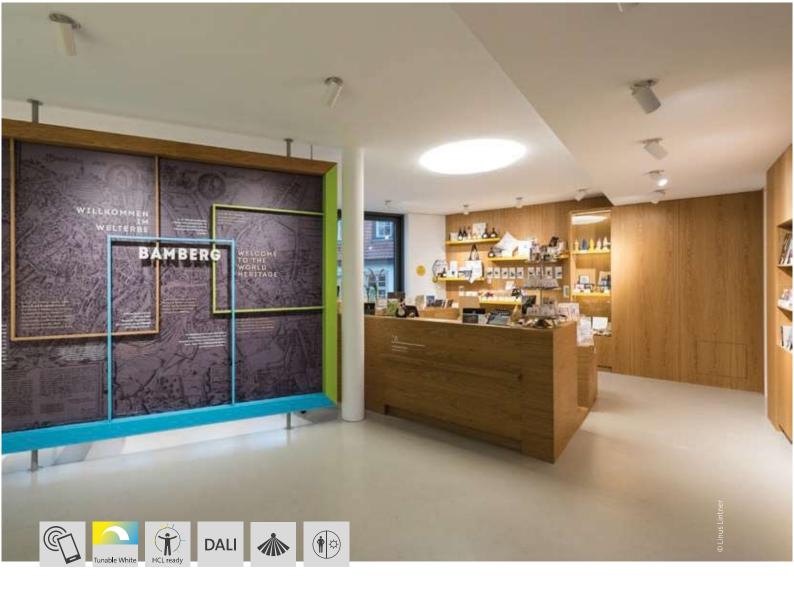


Service | Commissioning
The RZB light control + 3 light management system must be commissioned on site by an RZB service technician.

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# STAND-ALONE CONTROLLERS

Light management

### ARCHITECTURE

- Environmentally friendly: Energy savings up to 80% (compared to manual switching).
- **Sustainable:** Extends service life of lighting system.

### LIGHTING DESIGN

- **Plannable:** Controllers for operating DALI luminaires.
- Individual: Room-dependent lighting control.

### INSTALLATION

- Easy installation: Quick and easy to install.
- Straightforward: Easy to set up.



	DALI rotary potentiometers	DALI push dimmer	DALI broadcast controller with BLE	light control +3 Economy MULTI DALI
		East.		15
Connecting the luminaires/sensors	wired	wired	wired	wired
Configuration	Plug & Play	Plug & Play	Plug & Play App	Plug & Play App
Addressing	DALI Broadcast*	DALI Broadcast*	DALI Groupcast**	DALI Groupcast**
Max. number of luminaires (1 EB)	25/50 (parallel operation)	25/50 (parallel operation)	32	32
Parallel operation	max. 4	max. 4	no	no
Number of sensors	-	-	max. 4	max. 4
Switchable	✓	✓	✓	✓
Dimmable	✓	✓	✓	✓
Motion/presence detection			✓	✓
Daylight control			✓	✓
Tunable White	✓		✓	✓
Grouping			✓	✓
HCL				✓
Real time clock				✓
More information on page	588	588	589	590

<sup>\*</sup> DALI Broadcast: All connected luminaires are switched and dimmed together. Individual control of the luminaires is not possible.

<sup>\*\*</sup> DALI Groupcast: Connected luminaires can be divided into several groups. Groups can be switched and dimmed separately.



> ₩

β



### Light management | DALI rotary potentiometers

Type of protection: IP 20 Protection class: II



Housing: plastic. Digital potentiometer for switching and dimming up to 25 DALI converters (max. 50 DALI converters when operating two DALI rotary potentiometers in parallel, can be extended to max. 4 control points). Automatic synchronisation between the control points. Integrated DALI power supply which supplies the necessary DALI control current (active mode) or power supply directly from the DALI control line (passive mode). Broadcast mode (no DALI addressing required). Max. length of the DALI control cable 300 m (with 1.5 mm²). White rotary switch with white cover included in the scope of delivery. Installation in flush-mounted box.

Available colour: 2 = white

Reference Dimensions number [mm]

DALI rotary potentiometers	Price Category 21

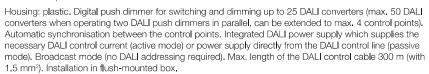
982384.002 L 80, B 80, H 50



### Light management | DALI push dimmer

Type of protection: IP 20 Protection class: II

or use with push buttons.



Available colour: 2 = white

Reference Dimensions number [mm]

DALI push dimm	er	Price Category 21
982252.002	L 48, B 48, H 22	



### Light management | DALI-Repeater

Type of protection: IP 20 Protection class: II

Housing: plastic, DALI controller and signal amplifier, Connection of up to 64 DALI EB in broadcast operation. Touch Dim control. Enables DALI line to be extended in 300 m increments (for 1.5 mm²). Suitable for installation in the luminaire or external operation with recess housing (09-6448,000).

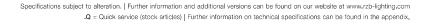
Available colour: 2 = white

Reference Dimensions number [mm]

Repeater-DALI		Price Category 21
982254.002	L 189, B 30, H 21	



Installation housing for DALI-Repeater		Price Category 21
09-6448.000	L 261, B 71, H 27	





### Light management | DALI-broadcast controller with BLE

Type of protection: IP 20 Protection class: II

Light control with App connection via Bluetooth® to control standard white or Tunable White light with DALI Device Type 8 (DT8). A DALI broadcast output channel for up to 32 DALI electronic ballasts. Integrated Bluetooth® low energy interface for setting and Operation of the lighting. Intuitive manual dimming and switching. Basic functionality also without configuration thanks to the presetting. Integrated DALI supply. Easy creation of scenes in the App. Operation via standard pushbuttons. Outputs with electronically reversible Overtemperature, short circuit, overload protection. Adaptation of all setting options via Smartphone. Free App for iOS and Android available. Cable length of DALI control cable: up to 300 m at 1.5 mm². Cable length up to push button: up to 50 m. Casing plastic.

Available colour: light grey

Reference Dimensions number [mm]

DALI-broadcast controller with BLE Price Category 21

982480.009 L 49, B 48, H 22







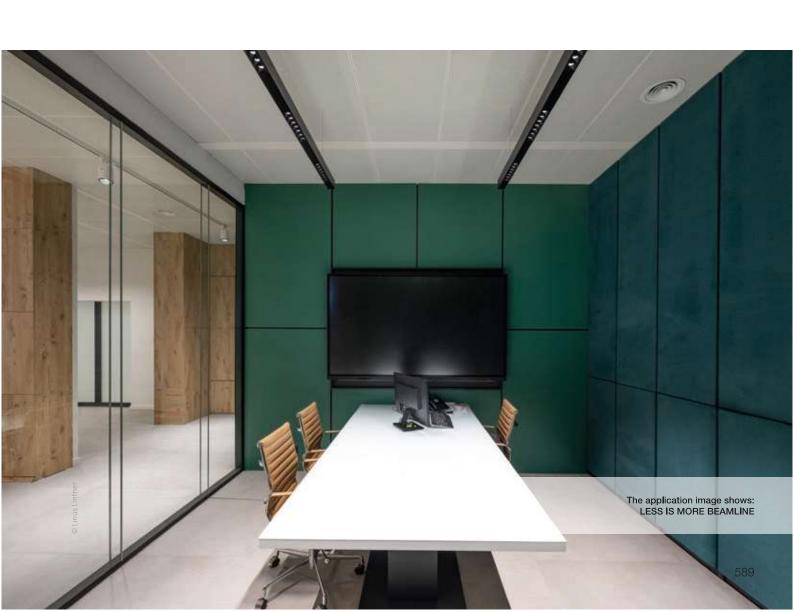






Osram BT Config App (for configuration) download now!

Osram BT Control App (for operation) download now!







### Light management | light control +3 Economy MULTI DALI

Type of protection: IP 20

Compact light control unit with DALI interface. Housing: plastic, white. Control and adjustment of all setting options for the lighting by smartphone. Integrated clock for time-controlled brightness or colour temperature control (HCL). Adaptable HCL characteristic with up to 24 points. Daylight-dependent control and presence-dependent light control. Pushbutton interface for separate operation of brightness and colour temperature. Control of standard white or tunable white light in accordance with DALI device type 8 (DT8). One DALI output channel (broadcast or groupcast). Suitable for up to 32 DALI luminaires. Outputs with electronically reversible overtemperature, short-circuit and overload protection. Integrated DALI bus supply. Length of the DALI control cable up to 300 m. Supports up to 4 DALI sensors (982757.002) and pushbutton couplers (982755.002). Sensor and pushbutton coupler available as accessories and must be ordered separately. Up to 50 m cable length to button. Scenarios can be called up via pushbutton coupler. Wireless firmware update by Bluetooth® possible. Suitable for installation in luminaires or external operation with strain relief. Strain relief (982845.0077) must be ordered separately.



Available colour: 2 = white

Reference Dimensions number [mm]

light control +3 Economy MULTI DALI		Price Category 2
982709.002	L 108, B 30, H 21	



Strain relief kit		Price Category 11
982845 0077	L 118 B 30 H 21	



### Accessories | light control +3 Economy | Professional

Type of protection: IP 20 Protection class: III

DALI-2 certified passive infrared sensor (PIR) to detect movement and brightness. Installation height: 2-5 m. Presence detection range adjustable via integrated shutters between 40° and 90°. Light sensor range: 0-800 k (measured at the sensor). Direct connection to DALI bus, Power is supplied from the DALI line (no separate power supply needed). Function display with two-colour LED. Housing of non-flammable, halogen-free plastic (polycarbonate). Ceiling installation or ceiling mounting with accessories.



Modular design: Please order recessed or surface-mounted housing separately.

Available colour: 2 = white

Reference Dimensions number [mm]

Light and presence sensor for installation heights of 2-5 m

982757.002

L 48, B 15, H 20



 Recessed housing for light and presence sensor
 Price Category 21

 Ceiling cut out DA 68 mm
 01-8613.002
 D 80, H 36













Osram BT Config App (for configuration) download now!

Osram BT Control App (for operation) download now!



### Accessories | light control +3 Economy | Professional

Type of protection: IP 20 Protection class: III

DALI-2 certified push-button coupler. Direct connection to DALI bus. Power is supplied from the DALI line (no separate power supply needed), 4 potential-free inlets for connection to commercially available switches. Installation in flush-mounted box, Housing: plastic.

Available colour: 2 = white

Reference number Dimensions [mm]

Push-button coupler for connecting 4 on-site push-buttons 982755.002

L 43, B 43, H 21

Price Category 21

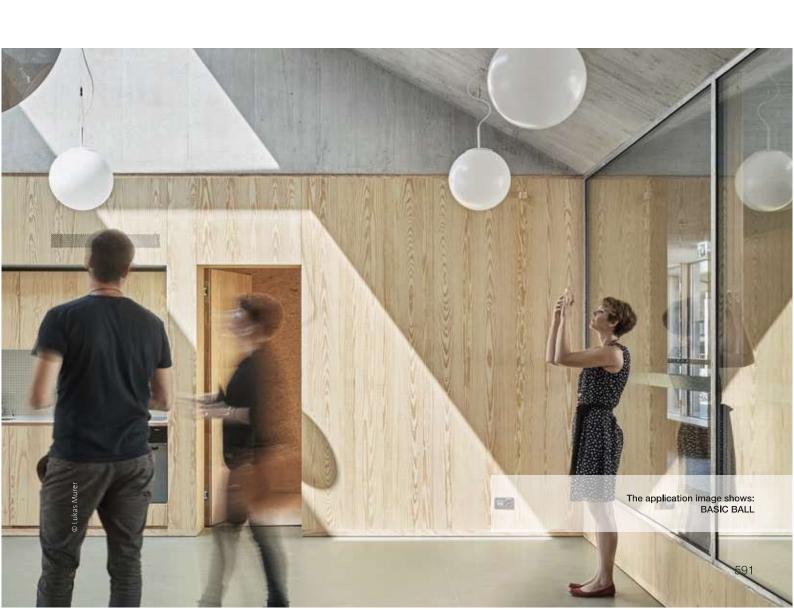


 $\label{lem:control} \textbf{Service | Commissioning} \\ \textbf{The RZB light control} + ^3 \textbf{light management system must be commissioned on site by an RZB service technician.} \\$ 

Commissioning

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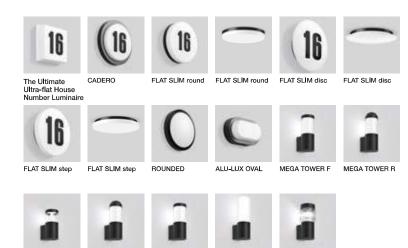
### Overview - Luminaires with built-in sensors

### Daylight sensor

installed separately in each luminaire.

A daylight sensor measures the incidence of light on a luminaire in order to switch it on and off depending on the brightness. Short light pulses (e.g. from car headlights) are filtered out to avoid repeated switching on and off within a short time. Daylight sensores

are used exclusively in outdoor luminaires and are



### Stand-alone sensors

Stand-alone sensors are used to control unit a single luminaire. Since no external control

is needed, the luminaire functions autonomously and requires a power supply only. Depending on the luminaire type, stand-alone devices can detect movement and brightness and are adjustable to a certain degree (delay time, brightness thresholds). Stand-alone sensors do not allow clustering of luminaires. Each luminaire with a stand-alone sensor works autonomously.



MEGA CONE

FLAT SLIM disc



FLAT SLIM step

MEGA LATERNE R MEGA LATERNE F MEGA TUBE



FLAT SLIM square



CADERO quadra

MEGA GÜRTELLINSE



ROUNDED maxi



### Master-slave systems

The luminaire with sensor (master) controls several other luminaires without sensor

(slave). Depending on the system, several master luminaires can also be operated together. Master-slave systems are mainly used in stairwells and corridors. They can be used for corridor functions, guided light ("running light") and similar functions. Depending on the luminaire type, master luminaires can detect movement and brightness and can be adjusted to a certain degree (delay time, brightness thresholds).









FLAT SLIM round FLAT SLIM disc FLAT SLIM step



### Mesh sensors

Mesh sensors create a wireless connection between each other. This allows for flexible

configuration via smartphone or tablet. The sensors (and luminaires connected to them) can be grouped as desired and the delay times and thresholds can be set individually. Just as with the master-slave systems, corridor functions, running lights, etc. can be set. Contrary to to the previously mentioned systems, these, however, do not have to be connected by wire.













MEGA CONE MEGA LATERNE R MEGA LATERNE F MEGA TUBE



MEGA GÜRTELLINSE FLAT SLIM round

FLAT SLIM disc

FLAT SLIM step FLAT S

Mesh sensors



			Master-Slave	Bluetooth® Mesh
Application	House number lighting Outdoor lighting	Facade Roofing	Corridor lighting Staircase	Staircase Outdoor lighting
Communication	stand-alone	stand-alone	wired	wireless
Infrastructure requirements	L, N, PE (3 wires cable)	L, N, PE (3 wires cable)	L, L', N, PE (5 wires cable )	L, N, PE (3 wires cable)
Commissioning	by electrician	by electrician, App	by electrician	by electrician, App
Configuration	pre-configured	push-button, remote control	pre-configured, dip switch	Арр
Dimmability	switchable (on/off)	switchable /dimmable via sensor	switchable /dimmable via sensor	switchable /dimmable via sensor
Switchable	✓	✓	✓	✓
Dimmable		✓	✓	✓ (DALI)
Movement/presence detection		✓	✓	✓
Brightness threshold adjustable		✓	✓	✓
Daylight-dependent control		✓	(luminaire-dependent*)	✓
Basic light		✓	✓	✓ (DALI)
Corridor function			✓ (luminaire-dependent*)	✓
Grouping			✓ (luminaire-dependent*)	✓
Further luminaires possible			✓	✓
Further sensors possible			✓	✓
SoftDim				✓ (DALI)

Stand-alone sensors

Master-slave systems

Daylight sensor

<sup>\*</sup> For more information, see the operating instructions at www.rzb-lighting.com under the download area of the respective item.



### Overview - Outdoor dimming functions

### StepDIM

The StepDIM mode (Bi-Power mode) enables to switch between two power levels, "normal" operation and "half-night" operation, by means of an additionally switched phase. The light levels can be flexibly pre-programmed at the factory. A later adjustment can be realised by RZB Service.



### AstroDIM

AstroDIM offers a multi-stage night setback based on an internal time actuator that is oriented to the switch-on and switch-off times. No external control infrastructure is required, the luminaires are pre-configured at the factory and operate autonomously after installation. When ordering, please specify the desired times and dimming levels for switch-on/switch-off and night setback. Changes to the settings can only be made by qualified staff.



### DALI

DALI luminaires are controlled centrally via the DALI control lines. Luminaires can be combined in groups or controlled individually. Further functions depend on the DALI control used. You will find an overview on page 571.



## Zhaga

NEMA

### Zhaga / NEMA

Equipping a luminaire with a socket according to Zhaga or NEMA standards allows the connection of sensors and light management

systems (e.g. third-party systems such as Signify Interact City, Philips City Touch or eSave) without affecting the IP protection factor of the luminaire. The corresponding modules are attached without tools via bayonet lock (also retrofitted) and can be replaced at any time without opening the luminaire. If sensor technology and light management are to be used together, several sockets are also possible on one luminaire.

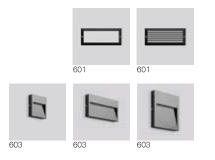




	StepDIM	AstroDIM	DALI	Zhaga / NEMA
	Step DIM	Astro DIM	DALI	Zhaga NEMA
Application	Public lighting/existing (half-night switching)	Parking spaces Streets	Streets Parking spaces Squares	Public lighting Streets Parking spaces
Communication	wired	stand-alone	wired	wireless
Can be combined with			Smart+ free	City Teach ready
Infrastructure requirements	L1, L2, N (5 wires cable)	L, N (3 wires cable)	L, N, DA, DA (5 wires cable)	L, N (3 wires cable)
Commissioning	by electrician, RZB service technician	by electrician, RZB service technician	RZB service technician	RZB service technician
Configuration	pre-configured	pre-configured	control-dependent	control-dependent
Number of luminaires (1 EB)/ control system	luminaire-dependent*	1	Up to 64 per DALI line	limited by the light management system used
Number of sensors			50	limited by the light management system used
Luminaire control	relais	stand-alone	switch, button, App	App, web access
Flexibility to control of different light points			<b>✓</b>	<b>✓</b>
Integration into existing installation	✓	✓	✓	✓
Energy saving through dimming	✓	✓	✓	<b>✓</b>
Autonomous dimming		✓		✓
Use of the existing Bi-Power approach with KVGs (half-night switching)	<b>✓</b>			
Bidirectional communication in lighting management systems			✓	✓
Motion/presence detection			✓	✓
Daylight detection			✓	✓
Scenes/groups			✓	✓
Timer/calendar functions			✓	✓
Network integration			✓	✓
Remote maintenance			✓	<b>✓</b>
IoT ready			✓	✓
Predictive maintenance, monitoring, reading luminaire data			<b>✓</b>	<b>√</b>
Integration of additional sensors (CO <sub>2</sub> , temperature, gas)				✓
Interface to building management			✓	✓

<sup>\*</sup> For more information, see the operating instructions at www.rzb-lighting.com under the download area of the respective item.





BRICK STEPS 600-601

BRICK EVO 602-603



# BRICK® STEPS

Recessed wall and step luminaires

### ARCHITECTURE

- Versatile: Recessed wall/stairway luminaires.
- Long service life: Cover frame or louvre cover choice of stainless steel or powdercoated die-cast aluminium.
- **Robust:** Cover made of shock-resistant plastic (polycarbonate), opal.
- Standard: Seawater resistant coating.

### LIGHTING DESIGN

- Advantageous: Selection of various luminous flux levels to prevent any glare. Choice of light colours.
- Applicable: For lighting stairs, corridors and paths, as well as for marking danger points and traffic areas with low ambient brightness.

### INSTALLATION

- Straightforward: Housing of die-cast aluminium, suitable for direct installation.
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.



### Recessed wall and step luminaires | BRICK STEPS

Type of protection: IP 66 Protection class: I Impact protection: IK08

Housing: die-cast aluminium, powder-coated. Frame: die-cast aluminium, powder-coated or stainless steel. Shock resistant plastic (polycarbonate) cover, opal. Driver integrated. With second cable entry for loop through, Recommended accessory: recessed support.

Available colours (X): 0 = stainless steel, 2 = white, 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency [lm/W]	Lighting control
Recessed wall and	step luminaires					Price Category 12
Frame: die-cast alui	minium - Cut out LA 228 >	BA 85 mm, I	HE 70 mm			
641306.00X	L 236, B 100, H 5	830	200	6	34	on/off
641306.00X.76	L 236, B 100, H 5	830	200	6	34	DALI
641306.00X.1	L 236, B 100, H 5	840	200	6	34	on/off
641306.00X.1.76	L 236, B 100, H 5	840	200	6	34	DALI
Frame: stainless ste	el - Cut out LA 228 x BA	85 mm, HE 70	) mm			
641307.000	L 236, B 100, H 5	830	200	6	34	on/off
641307.000.76	L 236, B 100, H 5	830	200	6	34	DALI
641307.000.1	L 236, B 100, H 5	840	200	6	34	on/off
641307.000.1.76	L 236, B 100, H 5	840	200	6	34	DALI



Comparison LED vs. conventional lamps LED 6 W≈

1 x 40 W A60 (40 W Psys) 1 x 8 W T16 (11 W Psys)

### Recessed wall and step luminaires | BRICK STEPS

Type of protection: IP 66 Protection class: I Impact protection: IK10

Housing: die-cast aluminium, powder-coated. Lamella frame: die-cast aluminium, powder-coated or stainless steel. Shock resistant plastic (polycarbonate) cover, opal. Driver integrated. With second cable entry for loop through. Recommended accessory: recessed support.

Available colours (X): 0 = stainless steel, 2 = white, 31 = anthracite



Reference	Dimensions	Light	Luminous	System	System	Lighting
number	[mm]	colour	flux [lm]	power [W]	efficiency [lm/W]	control
Recessed wall and	step luminaires, anti-glare	Э				Price Category 12
Lamella frame: die-	cast aluminium - Cut out	LA 228 x BA 8	35 mm, HE 70 mm			
641304.00X	L 236, B 100, H 5	830	75	6	13	on/off
641304.00X.76	L 236, B 100, H 5	830	75	6	13	DALI
641304.00X.1	L 236, B 100, H 5	840	80	6	14	on/off
641304.00X.1.76	L 236, B 100, H 5	840	80	6	14	DALI
Lamella frame: stair	nless steel - Cut out LA 2	28 x BA 85 m	m, HE 70 mm			
641305.000	L 236, B 100, H 5	830	110	6	19	on/off
641305.000.76	L 236, B 100, H 5	830	110	6	19	DALI
641305.000.1	L 236, B 100, H 5	840	110	6	19	on/off
641305.000.1.76	L 236, B 100, H 5	840	110	6	19	DALI

Comparison LED vs. conventional lamps LED 6 W ≈ 1 x 25 W A60 (25 W Psys) 1 x 4 W T16 (6 W Psys)

Accessories | Installation housing
Recessed housing for cavity walls made of sendzimir galvanised steel, cutout LA 232 x BA 92 mm, max. wall thickness 20 mm.

Set for installat	ion in cavity walls	Price Category 12
90-2780	L 230, B 98, HE 76	

Recessed mounting box for concrete or brick walls







Frame: stainless steel



Lamella frame: stainless steel



Frame: die-cast aluminium



Lamella frame: die-cast aluminium



Price Category 12

Frame: die-cast aluminium



Lamella frame: die-cast aluminium



# BRICK® EVO

Wall luminaires

### ARCHITECTURE

- Advantageous: Choice of three models for ideal adaption to the surroundings.
- Robust: Sturdy housing of non-corrosive pressure die-cast aluminium for outdoor application, powder coated with stainless steel screws and toughened glass diffuser.

### LIGHTING DESIGN

- Anti-glare: Asymmetrical downward light distribution for wide dispersion and uniform illumination.
- Applicable: Flat surface-mounted LED fitting for illumination of wall related areas such as stairs, ramps or corridors.

### INSTALLATION

- Straightforward: Only 24 mm depth, can be mounted directly over the cable outlet.
- Easy installation: Drill hole deviations can be compensated to achieve precise positioning.



BRICK EVO mini

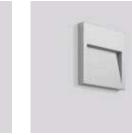
### Wall luminaires | BRICK EVO

Type of protection: **IP 65** Protection class: I Impact protection: IK09

Housing made of corrosion-resistant die-cast aluminium, powder-coated. Stainless steel screws. Toughened glass cover. Asymmetrical downward light distribution for wide dispersion and uniform illumination. With compensation for drill hole deviations. Driver integrated. With connecting terminal up to 1 x 3 x 1.5 mm<sup>2</sup>, for max. 13 mm diameter mains cable.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency [lm/W]	Lighting control
Wall luminaires						Price Category 12
BRICK EVO mini						
581632.00X	L 120, B 120, H 24	830	55	4	14	on/off
581632.00X.1	L 120, B 120, H 24	840	55	4	14	on/off
BRICK EVO midi						
581633.00X	L 200, B 200, H 24	830	190	10	19	on/off
581633.00X.1	L 200, B 200, H 24	840	190	10	19	on/off
BRICK EVO duo						
581634.00X	L 240, B 120, H 24	830	180	10	18	on/off
581634.00X.1	L 240, B 120, H 24	840	180	10	18	on/off









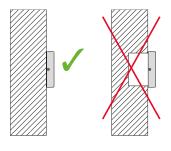
Comparison LED vs. conventional lamps

LED 4 W ≈

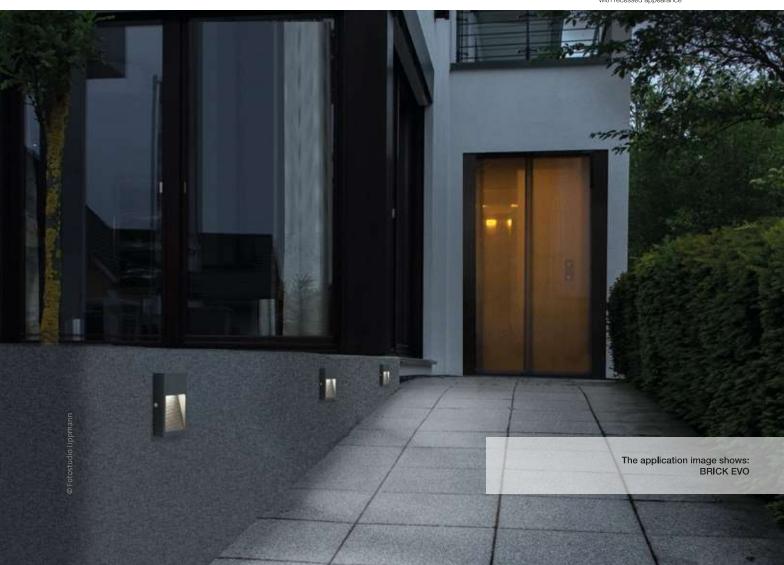
1 x 10 W QT9 (12 W Psys)

LED 10 W ≈

1 x 20 W QT12 (24 W Psys)



The revolutionary surface-mounted luminaire with recessed appearance







NADELSPOT Wallscaping 606-610 | 612-613



CYL Wallscaping 606-610 | 614-615



ZONO Wallscaping 606-610 | 616-617



TECHNO Wallscaping 606-610 | 618-619



MEGA 620-629





DESMONDO 630-631



ROUNDED 632-633



ALU-SUPERIOR 634-635



ALU-LUX OVAL 636-637

# WALLSCAPING

Comparison



## NADELSPOT | CYL | ZONO | TECHNO

Wall mounting outside the sealed area	✓
Plug & Play thanks to RZB Gravolock® system	✓
Automatic contacting of the luminaire when plugged on	✓
Anti-theft protection	✓
Seawater-resistant coating	✓
Through-wiring	✓
Cover lens can be replaced without tools	✓
Change of beam pattern between up- & downlight	✓
Connection completely without tools	
DALI dimmable	
MultiLumen	
Reflectors can be exchanged without tools	
Smaller buildings 1-2 storeys (e.g. detached house)	✓
Larger buildings (e.g. urban environment, hotel, office buildings)	
Luminous flux	110 - 360 lm



NADELSPOT PRO | CYL PRO | ZONO PRO | TECHNO PRO

✓
✓
✓
✓
✓
✓
✓
✓
✓
✓
✓
✓
✓
✓
250 - 2700 lm

# WALLSCAPING

Everything at a glance



Two cable entries for loop-through.

Generous space for cable placement.

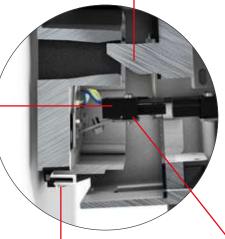
### RZB Gravolock® system

Quick and easy installation of the luminaire head, without tools on the mounting base.



### Comfortable installation

A quick-connector between base and head provides safe power supply.



# Safety

A latch prevents from being unintentionally removed later.

### PRO version:

## Even more convenient

The optimised Quick-Connector can be connected to the NYM cable without removing the plug.



### Unmistakeable features

The luminaire top and bottom consist of a frameless glass cover made of ceramic coated ESG.

### Fixing on the wall

outside the sealed area, drill hole deviations can be compensated.







Housing made of corrosion-resistant pressure die-cast aluminium, marine grade powder coating.

### PRO version:

MultiLumen function:

3 steps adjustable luminous flux.



### PRO version:

### Interchangeable reflector

Radiation characteristics can be adjusted at any time thanks to exchange of reflectors without tools via bayonet.





# NADELSPOT | CYL | ZONO | TECHNO

Wall luminaires

### ARCHITECTURE

- **Design-oriented:** Classic, timeless and with minimalist design.
- **Versatile:** Four luminaire bodies one mounting bracket.
- Safe: Safety catch for theft protection.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

### LIGHTING DESIGN

- **Individual:** Versions with interchangeable reflectors for flexible wall installation.
- **Powerful:** MultiLumen variants 3 steps adjustable luminous flux.
- Long service life: Seawater resistant coating.
- Innovativ: The innovative housing concept protects light source and driver reliably against all weather conditions.

### INSTALLATION

- Easy installation: Fixing and electrical connection is done only at the fixing plate, the luminaire is screwlessly plugged on thereafter and held into position via RZB Gravolock® System.
- **Straightforward:** The standard large cable inlet allows a simple loop-through without an additional connection box.
- Standard: Integral membrane valve for pressure compensation and avoidance of condensation.







### Wall luminaires | NADELSPOT

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K07



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass with bayonet lock. With membrane valve as a standard to avoid condensed water. Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. Driver integrated. Cable entry granting two cables for loop-through.

Available colours (X): 31 = anthracite, 4 = silver

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control
	Wall luminaires w	rith light emission on one sid	е					Price Category 12
	↓ Wide flood							
_	582078.00X	L 100, B 154, H 131	830	180	3,5	51	70	on/off
4	Wall luminaires w	rith light emission on two sid	es					Price Category 12
	↑Superspot   ↓\	Wide flood						
	582079.00X	L 100, B 154, H 131	830	310	6,2	50	4/70	on/off
	↑ Wide flood   ↓	Wide flood						
	582077.00X	L 100, B 154, H 131	830	360	6,2	58	70/70	on/off



### Accessories | Diffuser

Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser			Price Category 11
982768.003	D 100, H 31	Blanking cover.	
982768.013	D 100, H 31	Centre: transparent d64 mm.	
982768.023	D 100, H 31	Centre: satin finish d64 mm.	



### Accessories | Superspot optical lens system.

Safety glass made from ceramic coated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

Superspot optical le	ens system		Price Category 11
982768.033	D 100, H 31	Centre: transparent with pressed glass lens Superspot.	



### Wall luminaires | NADELSPOT PRO

Type of protection: IP 65 Protection class: I Impact protection: IK07



Liahtina

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass. With membrane valve as a standard to avoid condensed water, Spot and Flood designs with rotationally symmetrical reflector, Superspot design with lens, narrow beam. No tools needed for change of reflector and cover thanks to bayonet system. Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. COB LED with socket for easy replacement. Driver integrated. Cable entry granting two cables for loop-through.

Light

Available colours (X): 31 = anthracite, 4 = silver

Dimensions



Reference

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control
Wall luminaires wi	th light emission on one sid	е					Price Category 12
↓ Superspot							
582092.00X.76	L 100, B 154, H 127	830	250	12	21	10°	DALI
↓ Spot							
582091.00X.76	L 100, B 154, H 127	830	1100	12	92	15°	DALI
↓ Flood							
582072.00X.76	L 100, B 154, H 127	830	1150	12	96	35°	DALI

Luminous

System

System



Wall luminaires with light emission on two sides							Price Category 12	
↑Superspot   ↓Superspot								
582090.00X.76	L 100, B 154, H 127	830	520	23	23	10°/10°	DAL	
↑ Superspot   ↓ Flo	ood							
582089 00X 76	L 100, B 154, H 127	830	1400	23	61	10°/35°	DALI	
↑ Spot   ↓ Spot								
582088.00X.76	L 100, B 154, H 127	830	2200	23	96	15°/15°	DALI	
↑Flood   ↓Flood								
582071.00X.76	L 100, B 154, H 127	830	2150	23	93	35°/35°	DALI	



Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser			Price Category 11
982768.003	D 100, H 31	Blanking cover.	
982768.043	D 100, H 31	Centre: transparent d 50 mm. For reflectors, Spot and Flood.	



Accessories | Superspot optical lens system.

oated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

Superspot optical	al lens system		Price Category 11
982768.033	D 100, H 31	Centre: transparent with pressed glass lens Superspot.	



Accessories | Reflector

Plastic (PC) reflector, aluminium coated, highly polished.

Reflector			Price Category 12
982846.004	D 50, H 30	Reflector spot	
982846.014	D 50, H 30	Reflector flood	



You would like to change the radiation characteristics of the luminaire afterwards? Gladly.

NADELSPOT PRO		I have				
		Superspot 10° Spot 15°		Flood 35°		
I would like to	Superspot 10°	_	982768.033	982768.033		
	Spot 15°	982846.004 & 982768.043	-	982846.004		
	Flood 35°	982846.014 & 982768.043	982846.014	-		





#### Wall luminaires | CYL

Type of protection: **IP 65** Protection class: I Impact protection: IK07



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass with bayonet lock. With membrane valve as a standard to avoid condensed water, Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. Driver integrated, Cable entry granting two cables for loop-through.

Available colours (X): 31 = anthracite, 4 = silver

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [Im/W]	<b>₹</b>	Lighting control		
1	Wall luminaires with light emission on two sides Price Category 12									
ı	↑ Superspot   ↓ Wide	eflood								
	582084.00X	L 100, B 154, H 311	830	310	6,2	50	4/68	on/off		
↑ Wide flood   ↓ Wide flood										
	582083.00X	L 100, B 154, H 311	830	360	6,2	58	68/68	on/off		



Accessories | Diffuser
Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser	Price Category 11		
982768.003	D 100, H 31	Blanking cover.	
982768.013	D 100, H 31	Centre: transparent d64 mm.	
982768.023	D 100, H 31	Centre: satin finish d64 mm.	



Accessories | Superspot optical lens system.
Safety glass made from ceramic coated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

Superspot optical I	Price Category 11		
982768.033	D 100, H 31	Centre: transparent with pressed glass lens Superspot.	

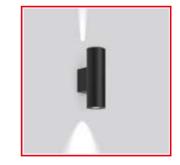


#### Wall luminaires | CYL PRO

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K07



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass. With membrane valve as a standard to avoid condensed water, Spot and Flood designs with rotationally symmetrical reflector, Superspot design with lens, narrow beam. No tools needed for change of reflector and cover thanks to bayonet system. Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. COB LED with socket for easy replacement. Driver integrated. Cable entry granting two cables for loop-through.



MultiLumen: 3 steps adjustable luminous flux. Factory setting is the highest luminous flux.

Available colours (X): 31 = anthracite, 4 = silver



Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control
Wall luminaires with	light emission on two side	S		. ,	. ,		Price Category 12
↑ Superspot   ↓ Sup	erspot						
582100.00X.76	L 100, B 154, H 307	830	400800	1328	32	10°/10°	DALI
↑ Superspot   ↓ Floo	od						
582099.00X.76	L 100, B 154, H 307	830	9001750	1328	69	10°/35°	DALI
↑ Spot   ↓ Spot							
582098.00X.76	L 100, B 154, H 307	830	13502700	1328	104	15°/15°	DALI
↑ Flood   ↓ Flood							
582075.00X.76	L 100, B 154, H 307	830	13502700	1328	104	35°/35°	DALI

MultiLumen: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.

#### Accessories Diffuser

Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser			Price Category 11
982768.003	D 100, H 31	Blanking cover.	· · · · · · · · · · · · · · · · · · ·
982768.043	D 100, H 31	Centre: transparent d 50 mm. For reflectors, Spot and Flood.	



#### Accessories | Superspot optical lens system.

Safety glass made from ceramic coated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

Superspot optical	Price Category 11		
982768.033	D 100, H 31	Centre: transparent with pressed glass lens Superspot.	



# Accessories | Reflector

Plastic (PC) reflector, aluminium coated, highly polished.

Reflector	Price Category 12		
982846.004	D 50, H 30	Reflector spot	
982846.014	D 50. H 30	Reflector flood	



You would like to change the radiation characteristics of the luminaire afterwards? Gladly.

CYL PRO		I have					
	CILFNO	Superspot 10°	Spot 15°	Flood 35°			
to	Superspot 10°	=	982768.033	982768.033			
would like t	Spot 15°	982846.004 & 982768.043	-	982846.004			
^	Flood 35°	982846.014 & 982768.043	982846.014	-			





#### Wall luminaires | ZONO

Type of protection: IP 65 Protection class: I Impact protection: IK07



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass with bayonet lock. With membrane valve as a standard to avoid condensed water. Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. Driver integrated. Cable entry granting two cables for loop-through.

Available colours (X): 31 = anthracite, 4 = silver

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> 0 [°]	Lighting control
	Wall luminaires w	vith light emission on one sid	е					Price Category 12
	↓ Wide flood							
	582081.00X	L 100, B 154, H 131	830	110	3,5	31	70	on/off
1	Wall luminaires w	vith light emission on two sid	es					Price Category 12
ı	↑ Superspot   ↓ \	Wide flood						
_	582082.00X	L 100, B 154, H 131	830	220	6,2	35	4/70	on/off
	↑ Wide flood   ↓	Wide flood						
	582080.00X	L 100, B 154, H 131	830	220	6,2	35	70/70	on/off



Accessories | Diffuser
Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser			Price Category 11
982769.003	L 100, B 100, H 31	Blanking cover.	
982769.013	L 100, B 100, H 31	Centre: transparent d64 mm.	
982769.023	L 100, B 100, H 31	Centre: satin finish d64 mm.	
982769.043	L 100, B 100, H 31	Centre: transparent 45x45 mm.	



#### Accessories | Superspot optical lens system

Safety glass made from ceramic coated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

Superspot optical len	Price Category 11		
982769.033	L 100, B 100, H 31	Centre: transparent with pressed glass lens Superspot.	



#### Wall luminaires | ZONO PRO

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K07



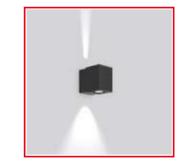
Lighting

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass. With membrane valve as a standard to avoid condensed water, Spot and Flood designs with rotationally symmetrical reflector. Superspot design with lens, narrow beam. No tools needed for change of reflector and cover thanks to bayonet system. Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. COB LED with socket for easy replacement. Driver integrated. Cable entry granting two cables for loop-through.

Light

Available colours (X): 31 = anthracite, 4 = silver

Dimensions





Reference

number	[mm]	colour	ilux [lm]	power [W]	efficiency* [lm/W]	[1]	control
Wall luminaires wi	Price Category 12						
<b>↓ Superspot</b> 582097.00X.76	L 100, B 154, H 127	830	250	12	21	10°	DALI
<b>↓ Spot</b> 582096.00X.76	L 100, B 154, H 127	830	1100	12	92	15°	DALI
<b>↓ Flood</b> 582074.00X.76	L 100, B 154, H 127	830	1150	12	96	35°	DALI

Luminous

System

System



Wall luminaires wit	h light emission on two sid	es					Price Category 12
↑ Superspot   ↓ Su	perspot						
582095.00X.76	L 100, B 154, H 127	830	520	23	23	10°/10°	DALI
↑ Superspot   ↓ Flo	ood						
582094.00X.76	L 100, B 154, H 127	830	1400	23	61	10°/35°	DAL
↑ Spot   ↓ Spot							
582093.00X.76	L 100, B 154, H 127	830	2200	23	96	15°/15°	DALI
↑ Flood   ↓ Flood							
582073.00X.76	L 100, B 154, H 127	830	2150	23	93	35°/35°	DALI



Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser			Price Category 11
982769.003	L 100, B 100, H 31	Blanking cover.	
982769.053	L 100, B 100, H 31	Centre: transparent d 50 mm. For reflectors, Spot and Flood.	



Accessories | Superspot optical lens system

Accessories | Superspot optical lens system
Safety glass made from ceramic coated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

, 0	9			0			,	0	0 0	
Superspot optica	ıl lens system								Price Category 11	
982769.033	L 100, B 100, H 31	Centre	e: transparent	with pressed	d glass lei	ns Superspo	t.			



Accessories | Reflector

Plastic (PC) reflector, aluminium coated, highly polished

Reflector			Price Category 12
982846.004	D 50, H 30	Reflector spot	
982846.014	D 50, H 30	Reflector flood	



You would like to change the radiation characteristics of the luminaire afterwards? Gladly.

	ZONO PRO	I have						
ZONO PRO		Superspot 10°	Spot 15°	Flood 35°				
to	Superspot 10°	_	982769.033	982769.033				
would like t	Spot 15°	982846.004 & 982769.053	-	982846.004				
^	Flood 35°	982846.014 & 982769.053	982846.014	-				





#### Wall luminaires | TECHNO

Type of protection: IP 65 Protection class: I Impact protection: IK07



 $\label{prop:local_equation} \mbox{Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated.}$ Cover made of ceramic-coated toughened glass with bayonet lock. With membrane valve as a standard to avoid condensed water. Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. Driver integrated, Cable entry granting two cables for loop-through.

Available colours (X): 31 = anthracite, 4 = silver

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control
1	Wall luminaires with I	ight emission on two sides						Price Category 12
l	↑ Superspot   ↓ Wide	flood						
	582086.00X	L 100, B 154, H 311	830	220	6,2	35	4/70	on/off
	↑ Wide flood   ↓ Wide	e flood						
	582085 00X	L 100, B 154, H 311	830	220	6,2	35	70/70	on/off



Accessories | Diffuser Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser			Price Category 11
982769.003	L 100, B 100, H 31	Blanking cover.	
982769.013	L 100, B 100, H 31	Centre: transparent d64 mm.	
982769.023	L 100, B 100, H 31	Centre: satin finish d64 mm.	
982769.043	L 100, B 100, H 31	Centre: transparent 45x45 mm.	



#### Accessories | Superspot optical lens system.

Safety glass made from ceramic coated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

Superspot optica	Price Category 11		
982769.033	L 100, B 100, H 31	Centre: transparent with pressed glass lens Superspot.	



#### Wall luminaires | TECHNO PRO

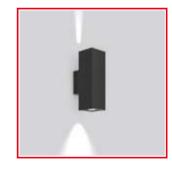
Available colours (X): 31 = anthracite, 4 = silver

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K07



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass. With membrane valve as a standard to avoid condensed water, Spot and Flood designs with rotationally symmetrical reflector, Superspot design with lens, narrow beam. No tools needed for change of reflector and cover thanks to bayonet system. Screwless luminaire fixing via RZB Gravolock® System. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. COB LED with socket for easy replacement. Driver integrated. Cable entry granting two cables for loop-through.









Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> 0	Lighting control
Wall luminaires with	light emission on two side	es					Price Category 12
↑ Superspot   ↓ Sup	perspot						
582103.00X.76	L 100, B 154, H 307	830	400800	1328	32	10°/10°	DALI
↑ Superspot   ↓ Flo	od						
582102.00X.76	L 100, B 154, H 307	830	9001750	1328	69	10°/35°	DALI
↑ Spot   ↓ Spot							
582101.00X.76	L 100, B 154, H 307	830	13502700	1328	104	15°/15°	DALI
↑ Flood   ↓ Flood							
582076.00X.76	L 100, B 154, H 307	830	13502700	1328	104	35°/35°	DALI

MultiLumen: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.

#### Accessories | Diffuser

Safety glass made from ceramic coated toughened glass, black. With bayonet fixing and sealing ring.

Diffuser			Price Category 11
982769.003	L 100, B 100, H 31	Blanking cover.	
982769.053	L 100, B 100, H 31	Centre: transparent d 50 mm. For reflectors, Spot and Flood.	



#### Accessories | Superspot optical lens system.

Safety glass made from ceramic coated toughened glass, black and pressed glass lens Superspot. With bayonet fixing and sealing ring.

Superspot optical	al lens system			Price Category 11
982769.033	L 100, B 100, H 31	Centre: transparent with pressed glass lens	Superspot.	



#### Accessories | Reflector

Plastic (PC) reflector, aluminium coated, highly polished.

Reflector			Price Category 12
982846.004	D 50, H 30	Reflector spot	
982846.014	D 50, H 30	Reflector flood	



You would like to change the radiation characteristics of the luminaire afterwards? Gladly.

	TECHNO PRO	I have						
	TECHNO PRO	Superspot 10°	Spot 15°	Flood 35°				
to	Superspot 10°	=	982769.033	982769.033				
would like t	Spot 15°	982846.004 & 982769.053	-	982846.004				
^	Flood 35°	982846.014 & 982769.053	982846.014	-				

# MEGA

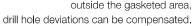
Everything at a glance



Two cable entries for loop-through.

Generous space for cable placement.

# Fixing on the wall outside the gasketed area,





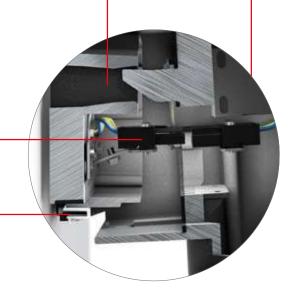
# RZB Gravolock® system

Quick and easy installation of the luminaire head, without tools on the mounting base.



# Comfortable installation

A quick-connector between base and head provides safe power supply.



#### Safety

A latch prevents from being unintentionally removed later.

# OUTDOOR LIGHTING | WALL LUMINAIRES





Housing made of corrosion-resistant pressure die-cast aluminium, seawater resistant powder-coated.

#### Unmistakeable features

The luminaire bottom consist of a frameless glass cover made of ceramic coated ESG.









Optionally with motion detector, twilight switch or additional light emission downwards (switchable

separately)

Versatile

High ingress protection rating: IP 65.









HF motion detector with Bluetooth® interfaces for switching and networking from individual luminaires up to complex light installations.

Mesh sensors create a wireless connection between each other. This allows for flexible configuration via smartphone or tablet.



Diffuser: mouth-blown opal glass, satin finish or mouth-blown luminaire glass, clear, drum lens shape.

Seven luminaire heads - one mounting base.







Wall luminaires

#### ARCHITECTURE

- Standard: Membrane valve to prevent condensation.
- Protected: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Homogenous: The high quality LED optics provide balanced brightness while minimising energy consumption.
- Long service life: High type of protection: IP 65.
- Versatile: Versions with movement sensor, daylight sensor or additional downward light emission.

# INSTALLATION

- Easy installation: Screwless luminaire fixing via RZB Gravolock® System.
- Straightforward: The standard large cable inlet allows a simple loop-through without an additional connection box.
- Advantageous: Installation could not be easier thanks to Plug & Play.

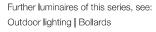
















MICAS Autolight App - download now!



#### Wall luminaires | MEGA TOWER F

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K04

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Luminaire head made of corrosion-resistant pressure die-cast aluminium, powder-coated, with transparent cylinder (glass) and translucent anti-glare louvres. Bottom cover single-pane, printed toughened safety glass. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Screwless luminaire fixing via RZB Gravolock® System. With membrane valve as a standard to avoid condensed water. Electrical plug and play featuring quick connector. Cable entry granting two cables for loop-through. Mains connection 2 x 3 x 2.5 mm² (with additional light emission downwards 2 x 5 x 2.5 mm²).

Available colours (X): 31 = anthracite, 4 = silver









# Comparison

LED vs. conventional lamps

#### LED 10 / 14 W ≈

1 x 100 W A60 (100 W Psys) 1 x 77 W QA60 (77 W Psys)



#### Movement sensor:

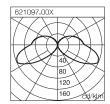
- HF detector 5.8 GHz
- Holding time: 5 sec. 60 min., adjustable in 13 steps
- Detection angle 120°
- Range: up to 10 m.
- Speed detection: 0.3-3 m/s (1-10 km/h)
- Sensitivity: 0-100%, adjustable in 10 steps.
- Daylight sensor 1-350 lx
- Factory setting: sensitivity 70%, hold time 30 seconds, daylight threshold value  $\infty$ .
- Functions adjustable via MICAS Autolight app on tablet or smartphone
- Master-master via Bluetooth® mesh and master-slave wired

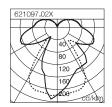
#### Daylight sensor

Light-interference pulses of less than 5 seconds are suppressed. This prevents the luminaire from being switched on and off in case of brief incidences of light (e.g. passing vehicles with headlights).

- Switch-on threshold approx, 5-10 lx
- Switch-off threshold approx, 30-40 lx

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
621097.00X	L 160, B 115, H 303	830	600	10	60	on/off
621097.00X.1	L 160, B 115, H 303	840	620	10	62	on/off
Wall luminaires with	h additional light emission	downwards	(switchable separa	tely)		Price Category 12
621097.02X	L 160, B 115, H 303	830	750	14	54	on/off
621097.02X.1	L 160, B 115, H 303	840	780	14	56	on/off
Wall luminaires with	h movement sensor					Price Category 12
621097.00X.19	L 160, B 115, H 303	830	600	10	60	on/off
621097.00X.1.19	L 160, B 115, H 303	840	620	10	62	on/off
Wall luminaires with	h daylight sensor					Price Category 12
621097.00X.25	L 160, B 115, H 303	830	600	10	60	on/off
621097.00X.1.25	L 160, B 115, H 303	840	620	10	62	on/off











Comparison LED vs. conventional lamps

LED 10 / 14 W ≈

1 x 100 W A60 (100 W Psys) 1 x 77 W QA60 (77 W Psys)



#### Wall luminaires | MEGA TOWER R

Type of protection: **IP 65**Protection class: I
Impact protection: **IK**04

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Luminaire head made of corrosion-resistant pressure die-cast aluminium, powder-coated, with transparent cylinder (glass) and translucent anti-glare louvres. Bottom cover single-pane, printed toughened safety glass. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Screwless luminaire fixing via RZB Gravolock® System. With membrane valve as a standard to avoid condensed water. Electrical plug and play featuring quick connector. Cable entry granting two cables for loop-through, Mains connection 2 x 3 x 2.5 mm² (with additional light emission downwards 2 x 5 x 2.5 mm²).

Available colours (X): 31 = anthracite, 4 = silver

#### Movement sensor:

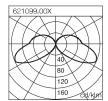
- HF detector 5.8 GHz
- Holding time: 5 sec. 60 min., adjustable in 13 steps
- Detection angle 120°
- Range: up to 10 m.
- Speed detection: 0.3-3 m/s (1-10 km/h)
- Sensitivity: 0-100%, adjustable in 10 steps.
- Daylight sensor 1-350 lx
- Factory setting: sensitivity 70%, hold time 30 seconds, daylight threshold value  $\infty$ .
- Functions adjustable via MICAS Autolight app on tablet or smartphone
- Master-master via Bluetooth® mesh and master-slave wired

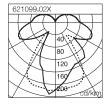
#### Daylight sensor

Light-interference pulses of less than 5 seconds are suppressed. This prevents the luminaire from being switched on and off in case of brief incidences of light (e.g. passing vehicles with headlights).

- Switch-on threshold approx, 5-10 lx
- Switch-off threshold approx, 30-40 lx

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
621099.00X	L 160, B 115, H 338	830	600	10	60	on/off
621099.00X.1	L 160, B 115, H 338	840	620	10	62	on/off
Wall luminaires with	n additional light emission o	downwards	(switchable separa	itely)		Price Category 12
621099.02X	L 160, B 115, H 338	830	750	14	54	on/off
621099.02X.1	L 160, B 115, H 338	840	780	14	56	on/off
Wall luminaires with	n movement sensor					Price Category 12
621099.00X.19	L 160, B 115, H 338	830	600	10	60	on/off
621099.00X.1.19	L 160, B 115, H 338	840	620	10	62	on/off
Wall luminaires with	n daylight sensor					Price Category 12
621099.00X.25	L 160, B 115, H 338	830	600	10	60	on/off
621099.00X.1.25	L 160, B 115, H 338	840	620	10	62	on/off







#### Wall luminaires | MEGA CONE

Type of protection: **IP 65**Protection class: I
Impact protection: IK04

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Luminaire head made of corrosion-resistant pressure die-cast aluminium, powder-coated, with clear glass cylinder and conical reflector. Bottom cover single-pane, printed toughened safety glass. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Screwless luminaire fixing via RZB Gravolock® System. With membrane valve as a standard to avoid condensed water. Electrical plug and play featuring quick connector. Cable entry granting two cables for loop-through. Mains connection 2 x 3 x 2.5 mm² (with additional light emission downwards 2 x 5 x 2.5 mm², for movement sensor and daylight sensor 2 x 4 x 2.5 mm²).

Available colours (X): 31 = anthracite, 4 = silver









1 x 100 W A60 (100 W Psys) 1 x 77 W QA60 (77 W Psys)



#### Movement sensor:

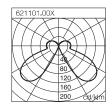
- HF detector 5.8 GHz
- Holding time: 5 sec. 60 min., adjustable in 13 steps
- Detection angle 120°
- Range: up to 10 m.
- Speed detection: 0.3-3 m/s (1-10 km/h)
- Sensitivity: 0-100%, adjustable in 10 steps.
- Daylight sensor 1-350 lx
- Factory setting: sensitivity 70%, hold time 30 seconds, daylight threshold value  $\infty$ .
- Functions adjustable via MICAS Autolight app on tablet or smartphone
- Master-master via Bluetooth® mesh and master-slave wired

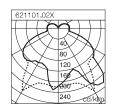
#### Daylight sensor:

Light-interference pulses of less than 5 seconds are suppressed. This prevents the luminaire from being switched on and off in case of brief incidences of light (e.g., passing vehicles with headlights).

- Switch-on threshold approx, 5-10 lx
- Switch-off threshold approx, 30-40 lx

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
621101.00X	L 160, B 115, H 249	830	600	10	60	on/off
621101.00X.1	L 160, B 115, H 249	840	630	10	63	on/off
Wall luminaires witl	n additional light emission	downwards	(switchable separa	itely)		Price Category 12
621101.02X	L 160, B 115, H 249	830	750	14	54	on/off
621101.02X.1	L 160, B 115, H 249	840	790	14	56	on/off
Wall luminaires witl	n movement sensor					Price Category 12
621101.00X.19	L 160, B 115, H 249	830	600	10	60	on/off
621101.00X.1.19	L 160, B 115, H 249	840	630	10	63	on/off
Wall luminaires with	n daylight sensor					Price Category 12
621101.00X.25	L 160, B 115, H 249	830	600	10	60	on/off
621101.00X.1.25	L 160, B 115, H 249	840	630	10	63	on/off











Comparison LED vs. conventional lamps

LED 10 / 14 W ≈

1 x 100 W A60 (100 W Psys) 1 x 77 W QA60 (77 W Psys)



#### Wall luminaires | MEGA LATERNE R

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K04

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Luminaire head made of die cast aluminium, powder-coated, with opal cylinder (glass). Bottom cover single-pane, printed toughened safety glass. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Screwless luminaire fixing via RZB Gravolock® System. With membrane valve as a standard to avoid condensed water. Electrical plug and play featuring quick connector. Cable entry granting two cables for loop-through. Mains connection  $2\times3\times2.5$  mm² (with additional light emission downwards  $2\times5\times2.5$  mm², for movement sensor and daylight sensor  $2\times4\times2.5$  mm²).

Available colours (X): 31 = anthracite, 4 = silver

#### Movement sensor:

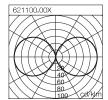
- HF detector 5.8 GHz
- Holding time: 5 sec. 60 min., adjustable in 13 steps
- Detection angle 120°
- Range: up to 10 m.
- Speed detection: 0.3-3 m/s (1-10 km/h)
- Sensitivity: 0-100%, adjustable in 10 steps.
- Daylight sensor 1-350 lx
- Factory setting: sensitivity 70%, hold time 30 seconds, daylight threshold value  $\infty$ .
- Functions adjustable via MICAS Autolight app on tablet or smartphone
- Master-master via Bluetooth® mesh and master-slave wired

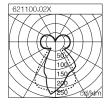
#### Daylight sensor:

Light-interference pulses of less than 5 seconds are suppressed. This prevents the luminaire from being switched on and off in case of brief incidences of light (e.g. passing vehicles with headlights).

- Switch-on threshold approx, 5-10 lx
- Switch-off threshold approx, 30-40 lx

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
621100.00X	L 160, B 115, H 338	830	460	10	46	on/off
621100.00X.1	L 160, B 115, H 338	840	480	10	48	on/off
Wall luminaires with	n additional light emission	downwards (	(switchable separa	itely)		Price Category 12
621100.02X	L 160, B 115, H 338	830	610	14	44	on/off
621100.02X.1	L 160, B 115, H 338	840	640	14	46	on/off
Wall luminaires with	n movement sensor					Price Category 12
621100.00X.19	L 160, B 115, H 338	830	460	10	46	on/off
621100.00X.1.19	L 160, B 115, H 338	840	480	10	48	on/off
Wall luminaires with	n daylight sensor					Price Category 12
621100.00X.25	L 160, B 115, H 338	830	460	10	46	on/off
621100.00X.1.25	L 160, B 115, H 338	840	480	10	48	on/off







#### Wall luminaires | MEGA LATERNE F

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K04

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Luminaire head made of die cast aluminium, powder-coated, with opal cylinder (glass). Bottom cover single-pane, printed toughened safety glass, Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Screwless luminaire fixing via RZB Gravolock® System. With membrane valve as a standard to avoid condensed water, Electrical plug and play featuring quick connector. Cable entry granting two cables for loop-through. Mains connection  $2\times3\times2.5~\text{mm}^2$  (with additional light emission downwards  $2\times5\times2.5~\text{mm}^2$ , for movement sensor and daylight sensor  $2\times4\times2.5~\text{mm}^2$ ).

Available colours (X): 31 = anthracite, 4 = silver







#### Comparison LED vs. conventional lamps

LED 10 / 14 W ≈

1 x 100 W A60 (100 W Psys) 1 x 77 W QA60 (77 W Psys)



#### Movement sensor:

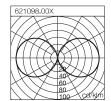
- HF detector 5.8 GHz
- Holding time: 5 sec. 60 min., adjustable in 13 steps
- Detection angle 120°
- Range: up to 10 m.
- Speed detection: 0.3-3 m/s (1-10 km/h)
- Sensitivity: 0-100%, adjustable in 10 steps.
- Daylight sensor 1-350 lx
- Factory setting: sensitivity 70%, hold time 30 seconds, daylight threshold value  $\infty$ .
- Functions adjustable via MICAS Autolight app on tablet or smartphone
- Master-master via Bluetooth® mesh and master-slave wired

#### Daylight sensor:

Light-interference pulses of less than 5 seconds are suppressed. This prevents the luminaire from being switched on and off in case of brief incidences of light (e.g., passing vehicles with headlights).

- Switch-on threshold approx, 5-10 lx
- Switch-off threshold approx, 30-40 lx

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
621098.00X	L 160, B 115, H 303	830	460	10	46	on/off
621098.00X.1	L 160, B 115, H 303	840	480	10	48	on/off
Wall luminaires with	n additional light emission	downwards (	(switchable separa	itely)		Price Category 12
621098.02X	L 160, B 115, H 303	830	610	14	44	on/off
621098.02X.1	L 160, B 115, H 303	840	640	14	46	on/off
Wall luminaires with	n movement sensor					Price Category 12
621098.00X.19	L 160, B 115, H 303	830	460	10	46	on/off
621098.00X.1.19	L 160, B 115, H 303	840	480	10	48	on/off
Wall luminaires with	n daylight sensor					Price Category 12
621098.00X.25	L 160, B 115, H 303	830	460	10	46	on/off
621098.00X.1.25	L 160, B 115, H 303	840	480	10	48	on/off











#### Comparison LED vs. conventional lamps

#### LED 10 / 14 W ≈

1 x 100 W A60 (100 W Psys) 1 x 77 W QA60 (77 W Psys)



#### Wall luminaires | MEGA TUBE

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K04

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Diffuser: mouth-blown opal glass, satin finish. Bottom cover single-pane, printed toughened safety glass. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Screwless luminiarie fixing via RZB Gravolock® System. With membrane valve as a standard to avoid condensed water. Electrical plug and play featuring quick connector. Cable entry granting two cables for loop-through. Mains connection  $2 \times 3 \times 2.5 \text{ mm}^2$  (with additional light emission downwards  $2 \times 5 \times 2.5 \text{ mm}^2$ ).

Available colours (X): 31 = anthracite, 4 = silver

#### Movement sensor:

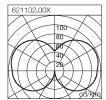
- HF detector 5.8 GHz
- Holding time: 5 sec. 60 min., adjustable in 13 steps
- Detection angle 120°
- Range: up to 10 m.
- Speed detection: 0,3-3 m/s (1-10 km/h)
- Sensitivity: 0-100%, adjustable in 10 steps.
- Daylight sensor 1-350 lx
- Factory setting: sensitivity 70%, hold time 30 seconds, daylight threshold value  $\infty$ .
- Functions adjustable via MICAS Autolight app on tablet or smartphone
- Master-master via Bluetooth® mesh and master-slave wired

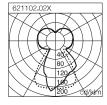
#### Daylight sensor:

Light-interference pulses of less than 5 seconds are suppressed. This prevents the luminaire from being switched on and off in case of brief incidences of light (e.g. passing vehicles with headlights).

- Switch-on threshold approx. 5-10 lx
- Switch-off threshold approx. 30-40 lx

	Lighting control	System efficiency* [lm/W]	System power [W]	Luminous flux [lm]	Light colour	Dimensions [mm]	Reference number
e Category 12	Price (						Wall luminaires
Ī.	on/off	65	10	650	830	L 160, B 115, H 338	621102.00X
f	on/off	67	10	670	840	L 160, B 115, H 338	621102.00X.1
e Category 12	Price (		ely)	switchable separa	downwards (	additional light emission o	Wall luminaires with
f	on/off	57	14	800	830	L 160, B 115, H 338	621102.02X
<u> </u>	on/off	59	14	830	840	L 160, B 115, H 338	621102.02X.1
e Category 12	Price (					movement sensor	Wall luminaires with
1	on/off	65	10	650	830	L 160, B 115, H 338	621102.00X.19
f	on/off	67	10	670	840	L 160, B 115, H 338	621102.00X.1.19
e Category 12	Price (					daylight sensor	Wall luminaires with
f	on/off	65	10	650	830	L 160, B 115, H 338	621102.00X.25
:	on/off	67	10	670	840	L 160, B 115, H 338	621102.00X.1.25







#### Wall luminaires | MEGA GÜRTELLINSE

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K04

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Mouth-blown luminaire glass, clear, drum lens shape. Bottom cover single-pane, printed toughened safety glass, Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Screwless luminaire fixing via RZB Gravolock® System. With membrane valve as a standard to avoid condensed water. Electrical plug and play featuring quick connector. Cable entry granting two cables for loop-through. Mains connection  $2 \times 3 \times 2.5 \text{ mm}^2$  (with additional light emission downwards  $2 \times 5 \times 2.5 \text{ mm}^2$ , for movement sensor and daylight sensor  $2 \times 4 \times 2.5 \text{ mm}^2$ ).

Available colours (X): 31 = anthracite, 4 = silver









LED 10 / 14 W ≈

1 x 100 W A60 (100 W Psys) 1 x 77 W QA60 (77 W Psys)



#### Movement sensor:

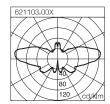
- HF detector 5.8 GHz
- Holding time: 5 sec. 60 min., adjustable in 13 steps
- Detection angle 120°
- Range: up to 10 m.
- Speed detection: 0.3-3 m/s (1-10 km/h)
- Sensitivity: 0-100%, adjustable in 10 steps.
- Daylight sensor 1-350 lx
- Factory setting: sensitivity 70%, hold time 30 seconds, daylight threshold value  $\infty$ .
- Functions adjustable via MICAS Autolight app on tablet or smartphone
- Master-master via Bluetooth® mesh and master-slave wired

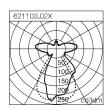
#### Daylight sensor:

Light-interference pulses of less than 5 seconds are suppressed. This prevents the luminaire from being switched on and off in case of brief incidences of light (e.g. passing vehicles with headlights).

- Switch-on threshold approx. 5-10 lx
- Switch-off threshold approx. 30-40 lx

number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
621103.00X	L 160, B 115, H 338	830	500	10	50	on/off
621103.00X.1	L 160, B 115, H 338	840	520	10	52	on/off
Wall luminaires with	n additional light emission	downwards (	(switchable separa	itely)		Price Category 12
621103.02X	L 160, B 115, H 338	830	650	14	46	on/off
621103.02X.1	L 160, B 115, H 338	840	680	14	49	on/off
Wall luminaires with	n movement sensor					Price Category 12
621103.00X.19	L 160, B 115, H 338	830	500	10	50	on/off
621103.00X.1.19	L 160, B 115, H 338	840	520	10	52	on/off
Wall luminaires with	n daylight sensor					Price Category 12
621103.00X.25	L 160, B 115, H 338	830	500	10	50	on/off
621103.00X.1.25	L 160, B 115, H 338	840	520	10	52	on/off







# **DESMONDO®**

Wall luminaires

# ARCHITECTURE

- **Design-oriented:** Convincing shaping through modern, straight-lined design.
- Long service life: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.
- Optimum: Integral membrane valve for pressure compensation and avoidance of condensation.

# LIGHTING DESIGN

- **Versatile:** Comprehensive selection of light distributions for universal illumination.
- **Applicable:** Illumination of areas and paths close to buildings.
- Advantageous: Easy LED replacement thanks to Zhaga standard.
- **Protected:** The high type of protection IP 65 enables maintenance-free, plain LED operation.

# INSTALLATION

- Easy installation: Tool-free mounting and very easy installation thanks to plug & play connection system (Quick Connector).
- Clever: Base fixing slots outside of gasketed area, drill hole deviations can be compensated.
- **Standard:** Second cable inlet for loop through.
- Reliable planning: Can be installed horizontally and vertically.



Reference

# Wall luminaires | DESMONDO

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K04

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover made of ceramic-coated toughened glass. With membrane valve as a standard to avoid condensed water, Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. Electrical plug and play featuring quick connector. Driver integrated. Cable entry granting two cables for loop-through.

Light

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Dimensions

number	[mm]	colour	flux [lm]	power [W]	efficiency* [lm/W]	control
Wall luminaires with	h light emission on one sid	de				Price Category 12
Asymmetrical linea	r light distribution for narr	ow streets ar	nd paths			
612339.00X.76	L 303, B 130, H 79	730	4700	32	147	DALI
612339.00X.1.76	L 303, B 130, H 79	740	4850	32	152	DALI
Asymmetrical linea	r light distribution for wide	streets and	paths			
612341.00X.76	L 303, B 130, H 79	730	4800	32	150	DALI
612341.00X.1.76	L 303, B 130, H 79	740	4950	32	155	DALI
Asymmetrical narro	w beam light distribution	for area light	ting (e.g. parking	g lots, loading zone	es)	
612340.00X.76	L 303, B 130, H 79	730	4550	32	142	DAL
612340.00X.1.76	L 303, B 130, H 79	740	4700	32	147	DAL <b>I</b>

Luminous

System

System



Lighting



Comparison LED vs. conventional lamps LED 32 W ≈ 1 x 50 W HIT (56 W Psys)













Wall luminaires

# ARCHITECTURE

- Reduced: Elegant appearance without visible screws featuring bayonet lock.
- Long service life: Seawater resistant coating.
- Safe: Integral membrane valve for pressure compensation and avoidance of condensation.
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Efficient: Versions with daylight sensor,
   HF motion detector or Casambi smart+free
   Bluetooth® control.
- Protected: The high type of protection
   IP 66 enables maintenance-free, plain LED operation.
- Flexible: MultiLumen: 4 steps adjustable luminous flux.
- Functional: MultiColour Colour temperature individually adjustable either 3000 K or 4000 K.

# INSTALLATION

- Standard: Second cable inlet for loop through.
- Advantageous: Quick installation:
  - Drill hole deviations can be compensated
  - Generous space for displacing cables allows the wall outlet even in the luminaire centre
  - Electrical connection via piano key terminal
  - Diffuser retained in cover





Further luminaires of this series, see:
Outdoor lighting | Ceiling and wall luminaires



#### Wall luminaires | ROUNDED

Type of protection: **IP 66**Protection class: I
Impact protection: **I**K07

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Diffuser: crystal glass (satin finish) or opal plastic (polycarbonate); with diffuser fixing, Diffuser fastening: bayonet system. With membrane valve as a standard to avoid condensed water. LED module can be connected without use of tools. The large connection compartment on the back for convenient connections is also ideal for through wiring.

MultiLumen: 4 steps adjustable luminous flux. Factory setting is the lowest luminous flux.

MultiColour: Colour temperature adjustable via switching element for 3000 K (factory setting) and 4000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

#### Functional parameters of the motion detector for wall mounting up to 2.5 m:

- HF detector 5.8 GHz.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
Glass	·					
582105.00X	D 300, H 77	830, 840	190510	3,59,5	57	on/off
582105.00X.76	D 300, H 77	830, 840	4301200	9,526	46	DALI
582105.00X.730	D 300, H 77	830, 840	4301200	1027	44	smart+free
Plastic (polycarbor	ate)					
582108.00X	D 300, H 77	830, 840	260690	3,59,5	77	on/off
582108.00X.76	D 300, H 77	830, 840	5801650	9,526	63	DALI
582108.00X.730	D 300, H 77	830, 840	5801650	1027	61	smart+free
Wall luminaires with	h daylight sensor					Price Category 12
Glass						
582105.00X.25	D 300, H 77	830, 840	190510	4,510	51	on/off
Plastic (polycarbor	ate)					
582108.00X.25	D 300, H 77	830, 840	260690	4,510	69	on/off
Wall luminaires with	n integrated HF movem	ent sensor				Price Category 12
Glass						
582105.00X.19	D 300, H 77	830, 840	190510	4,510	51	Sensor
<ul> <li>Plastic (polycarbor</li> </ul>	ate)					

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.

4,5...10

830, 840 260...690







Comparison LED vs. conventional lamps

LED 3,5 / 4,5 W ≈

1 x 30 W QA60 (30 W Psys)

**LED 9,5 / 10 W ≈** 1 x 57 W QA60 (57 W Psys)

**LED 26 / 27 W** ≈ 2 x 77 W QA60 (154 W Psys)



D 300, H 77







# **ALU-SUPERIOR**

Wall luminaires

# ARCHITECTURE

- Long service life: The sturdy construction in die-cast aluminium guarantees a long service life
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components,

# LIGHTING DESIGN

- Optimum: Integral membrane valve for pressure compensation and avoidance of condensation
- Protected: The high type of protection IP 65 enables maintenance-free, plain LED operation.

# INSTALLATION

- **Standard:** Second cable inlet for loop through.
- Clever: A stainless steel bracket outside the sealed lamp compartment is used to certainly prevent installation failures.
   Additionally, drill hole tolerances can be compensated.





Further luminaires of this series, see: Outdoor lighting | Ceiling and wall luminaires



7

# Wall luminaires | ALU-SUPERIOR

Type of protection: **IP 65** Protection class: I Impact protection: IK08

Base and cover cap: die-cast aluminium, powder coated. Stainless steel mounting bracket with compensation for drill hole deviations. Diffuser: plastic (polycarbonate), opal. With membrane valve to avoid condensation. With mains voltage LED module. Mains connection  $2\times3\times1.5~\text{mm}^2$ .

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires with visor						Price Category 12
51062.00X	D 245, H 125	840	250	6	42	on/off
51051.00X	D 245, H 125	1 x QA60	) (klar) max, 57 W			on/off



Comparison LED vs. conventional lamps LED 6 W ≈ 1 x 40 W A60 (40 W Psys)













# ALU-LUX OVAL

Wall luminaires

# ARCHITECTURE

- Long service life: The sturdy construction in die-cast aluminium guarantees a long
- Advantageous: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Optimum: Integral membrane valve for pressure compensation and avoidance of
- Protected: The high type of protection IP 65 enables maintenance-free, plain LED operation.

# INSTALLATION

- Standard: Second cable inlet for loop through.
- Clever: A stainless steel bracket outside the sealed lamp compartment is used to certainly prevent installation failures. Additionally, drill hole tolerances can be compensated.





Further luminaires of this series, see: Outdoor lighting | Ceiling and wall luminaires



#### Wall luminaires | ALU-LUX OVAL

Type of protection: **IP 65** Protection class: I Impact protection: IK07

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Crystal glass: matt inside. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. With mains voltage LED module. Mains connection 1 x 3 x 2.5 mm². With membrane valve to avoid condensation.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires with	h visor					Price Category 12
582065.00X *	L 258, B 148, H 92	830	220	8	28	on/off
582065.00X.1 *	L 258, B 148, H 92	840	240	8	30	on/off
582066.00X *	L 258, B 148, H 92	830	290	12	24	on/off
582066.00X.1 *	L 258, B 148, H 92	840	330	12	28	on/off
Wall luminaires witl	h daylight sensor					Price Category 12
582065.00X.25	L 258, B 148, H 92	830	220	8	28	on/off
582065.00X.1.25	L 258, B 148, H 92	840	240	8	30	on/off
582066.00X.25	L 258, B 148, H 92	830	290	12	24	on/off
582066.00X.1.25	L 258, B 148, H 92	840	330	12	28	on/off
* Suitable for phase of	rt dimming (10-100%)					

Suitable for phase cut dimming (10-100%)







Comparison LED vs. conventional lamps

LED 8 / 12 W ≈

1 x 60 W A60 (60 W Psys) 1 x 9 W TC-S (16 W Psys)











CADERO disca 640-641



FLAT SLIM round 642-643



FLAT SLIM disc 642-643



FLAT SLIM step 642-643



THE ULTIMATE ULTRA-FLAT HOUSE NUMBER LUMINAIRE 644-645



# **CADERO**

Ceiling and wall luminaires

#### Architecture

- Reduced: The flat design provides universal applicability with circular or square glass cover option.
- Long service life: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.
- **Protected:** The high type of protection IP 66 enables maintenance-free, plain LED operation.

#### LIGHTING DESIGN

- **Plannable:** Second cable inlet for loop through.
- Flexible: MultiLumen variants 4 steps adjustable luminous flux.
- Funktional: MultiColour variants Colour temperature individually adjustable either 3000 K or 4000 K.

# INSTALLATION

- Advantageous: Quick installation:
  - Drill hole deviations can be compensated
  - Generous space for displacing cables allows the wall outlet even in the luminaire centre
  - Electrical connection via piano key terminal
  - Diffuser retained in cover





Further luminaires of this series, see:
Outdoor lighting | Ceiling and wall luminaires



#### Ceiling and wall luminaires | CADERO disca - daylight sensor

Type of protection: **IP 66**Protection class: I
Impact protection: **I**K07

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Clear crystal glass, painted inside, with fixing device. Diffuser fastening: bayonet system. With membrane valve as a standard to avoid condensed water. LED module can be connected without use of tools. The large connection compartment on the back for convenient connections is also ideal for through wiring.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

MultiLumen: 4 steps adjustable luminous flux. Factory setting is the lowest luminous flux.

MultiColour: Colour temperature adjustable via switching element for 3000 K (factory setting) and 4000 K.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lumin		Price Category 12				
582110.00X.25	D 311, H 64	830, 840	330880	4,510	88	on/off

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.



Price Category 12



# Comparison

LED vs. conventional lamps

#### LED 4,5 W ≈

1 x 60 W A60 (60 W Psys) 1 x 9 W TC-S (16 W Psys)

#### LED 10 W ≈

1 x 100 W A60 (100 W Psys) 1 x 26 W TC-D (34 W Psys)

# Accessories | Self-adhesive black numbers and letters

The viewing distance depends on the height of the number. A 10 cm high number can still be read at a distance of 25 m, When ordering, please specify the required numbers or letters after the reference number.

Order example for lettering

99220.003.2 = Number 2

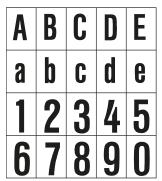
99220.003.B = Capital letter B

99220.003.B/K = Small letter b

Reference	Dimensions
number	[mm]
Adhesive lettering	

99220.003	H 40 mm
99221.003	H 60 mm
99222.003	H 100 mm
99223.003*	H 120 mm
99224.003*	H 200 mm

<sup>\*</sup> Only digits and capital letters can be supplied











# FLAT SLIM

Ceiling and wall luminaires

# ARCHITECTURE

- Extensive: Pendant luminaires, ceiling and wall luminaires.
- Individual: Mouth-blown three layer (triplex) opal glass satin finish or plastic diffuser (PMMA/PC) opal satin finish.
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.
- Integrated: Standard Gore™ Protective Vents diaphragm valve to avoid condensation.

# LIGHTING DESIGN

- Flexible: MultiLumen 2-step adjustable luminous flux.
- Variable: MultiColour Colour temperature individually adjustable either 3000 K or 4000 K.
- Uniform: Particularly homogeneous, soft and glare-free light thanks to the use of large size LED boards.

# INSTALLATION

- Easy installation: Installation could not be easier thanks to Plug & Play.
- **Straightforward:** Diffuser can be assembled without the use of tools.
- **Advantageous:** Big terminal block; ideal for through-wiring.
- Standard: Suitable for through-wiring.







Further luminaires of this series, see:
Outdoor lighting | Ceiling and wall luminaires



#### Ceiling and wall luminaires | FLAT SLIM round - daylight sensor

Type of protection: IP 65

Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth-blown three layer (triplex) opal glass satin finish or plastic diffuser (PMMA/PC) opal satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux, Factory setting is the highest luminous flux,

MultiColour: Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference	Dimensions	Light	Luminous	System	System	Lighting
number	[mm]	colour	flux	power	efficiency*	control
			[lm]	[W]	[lm/W]	
Ceiling and wall lum	inaires with integrated dayli	ght sensor				Price Category 11
Diffuser: glass						
312629.00X.25	D 300, H 70	830, 840	12502500	1326	100	on/off
Diffuser: plastic (PM	MA)					
312630.00X.25	D 300, H 70	830, 840	13002450	1120	123	on/off
Diffuser: plastic (polycarbonate)						
312630.00X.1.25	D 300, H 70	830, 840	14502450	1118	136	on/off





Comparison LED vs. conventional lamps

I FD 11 / 13 W ≈

2 x 18 W TC-D (52 W Psys)

LED 18 / 20 / 26 W ≈

2 x 26 W TC-D (68 W Psys)



#### Ceiling and wall luminaires | FLAT SLIM disc - daylight sensor

Type of protection: IP 65

Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

MultiColour: Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lun	ninaires with integrate	d daylight sensor				Price Category 11
312638.00X.25	D 380, H 70	830, 840	11502500	1124	105	on/off

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.



#### Comparison LED vs. conventional lamps

2 x 18 W TC-D (52 W Psys)

I FD 24 W ≈

2 x 26 W TC-D (68 W Psys)



# Ceiling and wall luminaires | FLAT SLIM step - daylight sensor

Type of protection: IP 65

Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux, Factory setting is the highest luminous flux,

MultiColour: Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall luminaires with integrated daylight sensor					Price Category 11	
312635.00X.25	D 350, H 70	830, 840	12002500	1122	114	on/off

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.



Comparison LED vs. conventional lamps

LED 11 W ≈

2 x 18 W TC-D (52 W Psys)

LED 22 W ≈

2 x 26 W TC-D (68 W Psys)

A	D	և	n		
a	b	C	d	e	
1	2	3	4	5	l
6	7	8	9	0	

ADCDE

Self-adhesive black digits and letters can be found at page 641.





Comparison LED vs. conventional lamps

LED 4 W ≈

1 x 40 W A60 (40 W Psys) 1 x 7 W TC-S (14 W Psys)

# House number luminaires | THE ULTIMATE ULTRA-FLAT HOUSE NUMBER LUMINAIRE

Type of protection: **IP 44**Protection class: I
Impact protection: **I**K06

Base: plastic. Diffuser: plastic, opal, satin finish. Diffuser fastening: spring system.

With mains voltage LED module.

# Please place a separate order for your lettering!

Available colours (X): 2 = white, 3 = black

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Wall luminaires						Price Category 12
221167.00X	L 226, B 226, H 70	840	230	4	58	on/off
Wall luminaires wi	th integrated daylight senso	or				Price Category 12
221167.00X.25	L 226, B 226, H 70	840	230	4	58	on/off



#### Accessories | Self-adhesive black numbers and letters

Sturdy, firmly adhesive

The viewing distance depends on the height of the number. A 10 cm high number can still be read at a distance of 25 m, When ordering, please specify the required numbers or letters after the reference number.

Order example for lettering

99223.013.2 = Number 2 (number height: 120 mm) 99222.013.B = Capital letter B (letter height: 100 mm) 99222.013.B/K = Small letter b (letter height: 100 mm)

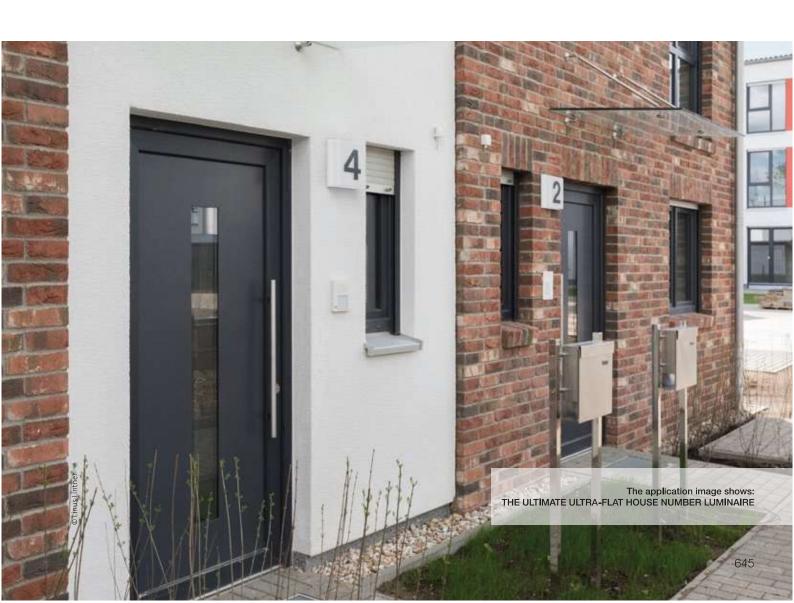
Reference Dimensions number [mm]

 Adhesive lettering
 Price Category 12

 99221.013
 H 60 mm

99221.013 H 60 mm 99222.013 H 100 mm 99223.013\* H 120 mm

A	B	C	D	E
a	b	C	d	6
1	2	3	4	5
6	7	8	9	0



<sup>\*</sup> Only digits and capital letters can be supplied









FLAT SLIM round 650-655



FLAT SLIM disc 652 | 656-657



FLAT SLIM step 652 | 658-659



FLAT SLIM square 652 | 660-661





CADERO 662-663





ROUNDED 664-667





ROUNDED maxi 668-669





ALU-SUPERIOR 670-671





ALU-LUX OVAL 672-673







Oval bulkhead luminaires 674-675



# **ANDHO®**

Surface mounted downlights

# ARCHITECTURE

- **Versatile:** High-quality surface-mounted downlight for indoor and outdoor use.
- Long service life: Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated.
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Advantageous: 2 performance levels are available.
- Efficient: Reflector made of super-reflective MIRO-SILVER® for outstanding efficiency.
- Optimum: LED rated life 50000 h (L80/B10).

# INSTALLATION

- Easy installation: Easy installation with a separate ceiling frame and plug connection.
- **Standard:** Membrane valve to prevent condensation.
- ${\bf Straight forward:}\ {\bf Suitable}\ {\bf for\ through-wiring.}$







Further luminaires of this series, see:
Outdoor lighting | Pole luminaires
Outdoor lighting | Projectors and floodlights



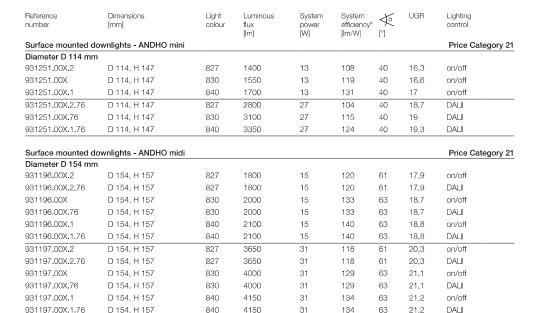
#### Surface mounted downlights | ANDHO

Type of protection: IP 66 (ANDHO mini), IP 65 (ANDHO midi) Protection class: I

Impact protection: IK06

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Cover clear single-pane toughened glass. Rotation-symmetric reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water. Connected via plug-in connector. 5 pole double terminal for through-wiring.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver





Clear reeded glass with mounting attachment			Price Category 12
982159.000	D 117, H 58	ANDHO mini. Elliptical beam angle.	
982160 000	D 159 H 58	ANDHO midi. Elliptical beam angle	





# Comparison

LED vs. conventional lamps

#### LED 13 W≈

1 x 20 W HIT (23 W Psys)

#### LED 15 W ≈

1 x 32 W TC-TEL (36 W Psys)

#### I ED 27 W

1 x 35 W HIT (43 W Psys) 1 x 42 W TC-TEL (47 W Psys)

#### FD 31 W a

1 x 50 W HIT (56 W Psys) 1 x 57 W TC-TEL (59 W Psys)

















# FLAT SLIM

Ceiling and wall luminaires

## ARCHITECTURE

- Extensive: 2 designs, 5 sizes, 3 types of installation, 5 diffusers, 3 colours.
- Individual: Round diffuser made of mouthblown 3-layer opal glass (Triplex glass) with satin finish or opal plastic (PMMA/PC), square diffuser made of matt or gloss crystal glass.
- **Applicable:** Suitable for indoor and outdoor use.
- Integrated: Standard Gore™ Protective Vents diaphragm valve to avoid condensation.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.









Further luminaires of this series, see: Indoor lighting | Pendant luminaires Outdoor lighting | House number luminaires

#### LIGHTING DESIGN

- Flexible: MultiLumen 2-step adjustable luminous flux.
- Variable: MultiColour Colour temperature individually adjustable either 3000 K or 4000 K.
- **Uniform:** Particularly homogeneous, soft and glare-free light thanks to the use of large size LED boards.
- Efficient: Versions with movement sensor.
- Smart Lighting: HF motion detector with DALI and Bluetooth® interfaces for switching, dimming and networking from individual luminaires up to complex light installations.

# INSTALLATION

- Easy installation: Installation could not be easier thanks to Plug & Play.
- **Straightforward:** Diffuser can be assembled without the use of tools.
- Advantageous: Big terminal block; ideal for through-wiring.
- Standard: Suitable for through-wiring.
- Connected: Versions with Casambi smart+free Bluetooth® control system for wireless network.



## Ceiling and wall luminaires | FLAT SLIM round

Type of protection: IP 65

Protection class: I

Impact protection: IK03, IK02 (PMMA), IK08 (Polycarbonate)

Base: pressure die-cast aluminium, powder-coated. Mouth-blown three layer (triplex) opal glass satin finish or plastic diffuser (PMMA/PC) opal satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools, Big terminal block; ideal for through-wiring, Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

 $\begin{tabular}{ll} \textbf{MultiColour:} Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K. \\ \end{tabular}$ 

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lumin	naires					Price Category 11
Diffuser: glass						-
D 230 mm						
312132.00X */**	D 230, H 63	830	1000	12	83	Phase-cut
312132.00X.76 */***	D 230, H 63	830	1000	12	83	DALI
312132.00X.1 */**	D 230, H 63	840	1000	11	91	Phase-cut
312132.00X.1.76 */***	D 230, H 63	840	1000	13	77	DALI
D 300 mm						
312629.00X	D 300, H 70	830, 840	12502500	1326	100	on/off
312629.00X.76	D 300, H 70	830, 840	12502500	1326	100	DALI
312629.00X.730	D 300, H 70	830, 840	12502500	1326	100	smart+free
D 400 mm						
312631.00X	D 400, H 70	830, 840	24504000	2541	100	on/off
312631.00X.76	D 400, H 70	830, 840	24504000	2541	100	DALI
312631.00X.730	D 400, H 70	830, 840	24504000	2541	100	smart+free
D 480 mm						
312633.00X	D 480, H 70	830, 840	33505000	3148	113	on/off
312633.00X.76	D 480, H 70	830, 840	33505000	3148	113	DALI
312633.00X.730	D 480, H 70	830, 840	33505000	3148	113	smart+free
Diffuser: plastic (PMN		,				
D 230 mm	,					
312135.00X */**	D 230, H 63	830	1150	12	96	Phase-cut
312135.00X.76 */***	D 230, H 63	830	1150	12	96	DALI
312135.00X.1 */**	D 230, H 63	840	1100	11	100	Phase-cut
312135.00X.1.76 */***	D 230, H 63	840	1100	13	85	DALI
D 300 mm	,					
312630.00X	D 300, H 70	830, 840	13002450	1120	123	on/off
312630.00X.76	D 300, H 70	830, 840	13002450	1120	123	DALI
312630.00X.730	D 300, H 70	830, 840	13002450	1120	123	smart+free
D 400 mm						
312632.00X	D 400, H 70	830, 840	24004150	2033	130	on/off
312632.00X.76	D 400, H 70	830, 840	24004150	2033	130	DALI
312632.00X.730	D 400, H 70	830, 840	24004150	2033	130	smart+free
D 480 mm	B 400,1170	000, 040	2-100100	2000	100	omartmoo
312634.00X	D 480. H 70	830, 840	34505150	2639	138	on/off
312634.00X.76	D 480, H 70	830, 840	34505150	2639	138	DALI
312634.00X.730	D 480, H 70	830, 840	34505150	2639	138	smart+free
		030, 040	34303130	2059	130	Silidit+liee
<ul> <li>Diffuser: plastic (poly- D 230 mm</li> </ul>	carbonate)					
312135.00X.2 */**	D 230, H 63	830	1300	12	108	Phase-cut
312135.00X.2.76 */***	D 230, H 63	830	1300	12	108	DAL <b>I</b>
312135.00X.3 */**	D 230, H 63	840	1300	11	118	Phase-cut
312135.00X.3.76 */***	D 230, H 63	840	1300	13	100	DALI
D 300 mm	D 200, 1100	040	1000	10	100	DALI
312630.00X.1	D 300, H 70	830, 840	14502450	1118	136	on/off
312630.00X.1.76	D 300, H 70	830, 840	14502450	1118	136	DALI
312630.00X.1.730	D 300, H 70	830, 840	14502450	1118	136	smart+free
D 400 mm	D 300, 1170	000, 040	14302430	1110	130	Siliaittiiee
312632.00X.1	D 400, H 70	830, 840	24504100	1829	141	on/off
312632.00X.1.76				1829	141	DALI
	D 400, H 70	830, 840	24504100			
312632.00X.1.730	D 400, H 70	830, 840	24504100	1829	141	smart+free
D 480 mm	D 400 1170	000 040	0500 5150	04 05	150	/-#
312634.00X.1	D 480, H 70	830, 840	35005150	2435	152	on/off
312634.00X.1.76	D 480, H 70	830, 840	35005150	2435	152	DALI
312634.00X.1.730	D 480, H 70	830, 840	35005150	2435	152	smart+free

 $<sup>^{\</sup>star}$  With mains voltage LED | \*\* Suitable for phase cut dimming (10-100%) | \*\*\* DALI dimmable (10-100%)

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.







Applies to versions with .76

Comparison

LED vs. conventional lamps

LED 11 / 12 / 13 W ≈

1 x 26 W TC-D (34 W Psys)

**LED 18 / 20 / 25 / 26 W** ≈ 2 × 26 W TC-D (68 W Psys)

LED 24 / 31 W ≈

3 x 26 W TC-D (102 W Psys)

LED 29 / 33 / 41 W  $\approx$ 

4 x 26 W TC-D (136 W Psys)

LED 35 / 39 / 48 W ≈

2 x 57 W TC-TEL (116 W Psys)













LED vs. conventional lamps

**LED 11 / 13 W ≈** 1 x 26 W TC-D (34 W Psvs)

**LED 18 / 20 / 25 / 26 W** ≈ 2 x 26 W TC-D (68 W Psys)

**LED 24 / 26 / 31 W ≈** 3 x 26 W TC-D (102 W Psys)

LED 29 / 33 / 41 W ≈

4 x 26 W TC-D (136 W Psys) **LED 35 / 39 / 48 W ≈** 

2 x 57 W TC-TEL (116 W Psys)

#### Ceiling and wall luminaires | FLAT SLIM round - movement sensor DALI/BT

Type of protection: IP 65

Protection class: I

Impact protection: IK03, IK02 (PMMA), IK08 (Polycarbonate)

Base: pressure die-cast aluminium, powder-coated. Mouth-blown three layer (triplex) opal glass satin finish or plastic diffuser (PMMA/PC) opal satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools, Big terminal block; ideal for through-wiring, Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

 $\begin{tabular}{ll} \textbf{MultiColour:} Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K. \end{tabular}$ 

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz with integrated corridor function.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via app.
- Sensors can be networked via Bluetooth®.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lur	minaires with integrated	d movement senso	r			Price Category 11
Diffuser: glass						
312629.00X.19	D 300, H 70	830, 840	12502500	1326	100	Sensor
312631.00X.19	D 400, H 70	830, 840	24504000	2541	100	Sensor
312633.00X.19	D 480, H 70	830, 840	33505000	3148	113	Sensor
Diffuser: plastic (PI	MMA)					
312630.00X.19	D 300, H 70	830, 840	13002450	1120	123	Sensor
312632.00X.19	D 400, H 70	830, 840	24004150	2033	130	Sensor
312634.00X.19	D 480, H 70	830, 840	34505150	2639	138	Sensor
Diffuser: plastic (po	olycarbonate)					
312630.00X.1.19	D 300, H 70	830, 840	14502450	1118	136	Sensor
312632.00X.1.19	D 400, H 70	830, 840	24504100	1829	141	Sensor
312634.00X.1.19	D 480, H 70	830, 840	35005150	2435	152	Sensor

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.



## Ceiling and wall luminaires | FLAT SLIM round - daylight sensor

Type of protection: IP 65

Protection class: I

Impact protection: IK03, IK02 (PMMA), IK08 (Polycarbonate)

Base: pressure die-cast aluminium, powder-coated. Mouth-blown three layer (triplex) opal glass satin finish or plastic diffuser (PMMA/PC) opal satin finish, Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

MultiColour: Colour temperature individually adjustable either 3000 K or 4000 K via switching element.

Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver



# Comparison LED vs. conventional lamps

**LED 11 / 13 W ≈** 1 x 26 W TC-D (34 W Psys)

**LED 18 / 20 / 26 W** ≈ 2 x 26 W TC-D (68 W Psys)



7

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lun	ninaires with integrate	d daylight sensor				Price Category 11
Diffuser: glass						
312629.00X.25	D 300, H 70	830, 840	12502500	1326	100	on/off
Diffuser: plastic (PI	<b>ИМА</b> )					
312630.00X.25	D 300, H 70	830, 840	13002450	1120	123	on/off
Diffuser: plastic (po	lycarbonate)					
312630.00X.1.25	D 300, H 70	830, 840	14502450	1118	136	on/off

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.













#### Ceiling and wall luminaires | FLAT SLIM round - movement sensor on/off

Type of protection: IP 65

Protection class: I

Impact protection: IK03, IK02 (PMMA), IK08 (Polycarbonate)

Base: pressure die-cast aluminium, powder-coated. Mouth-blown three layer (triplex) opal glass satin finish or plastic diffuser (PMMA/PC) opal satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring, Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

**MultiColour:** Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5,8 GHz.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Ceiling and wall lum	ninaires with integrated	d movement senso	r			Price Category 11
Diffuser: glass						
312673.00X.19	D 300, H 70	830, 840	12502500	1326	100	Sensor
312675.00X.19	D 400, H 70	830, 840	24504000	2541	100	Sensor
312677.00X.19	D 480, H 70	830, 840	33505000	3148	113	Sensor
Diffuser: plastic (PN	1MA)					
312674.00X.19	D 300, H 70	830, 840	13002450	1120	123	Sensor
312676.00X.19	D 400, H 70	830, 840	24004150	2033	130	Sensor
312678.00X.19	D 480, H 70	830, 840	34505150	2639	138	Sensor
Diffuser: plastic (po	lycarbonate)					
312674.00X.1.19	D 300, H 70	830, 840	14502450	1118	136	Sensor
312676.00X.1.19	D 400, H 70	830, 840	24504100	1829	141	Sensor
312678.00X.1.19	D 480, H 70	830, 840	35005150	2435	152	Sensor

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.







# Comparison

LED vs. conventional lamps

#### LED 11 / 13 W ≈

1 x 26 W TC-D (34 W Psys)

**LED 18 / 20 / 25 / 26 W** ≈ 2 × 26 W TC-D (68 W Psys)

LED 24 / 26 / 31 W ≈

3 x 26 W TC-D (102 W Psys)

LED 29 / 33 / 41 W ≈

4 x 26 W TC-D (136 W Psys)

LED 35 / 39 / 48 W  $\approx$ 

2 x 57 W TC-TEL (116 W Psys)

# Functional parameters of a master luminaire with a ceiling height of approx. 2.8 m:

- HF detector 24 GHz with integrated corridor function
- Coverage: approx. 130° radial.
- Easy adjustment of functions via 3 associated push button switches
- Sensitivity/Range: 0.5-5 m radial, adjustable from 10-100%.
- Time control 1 second to 15 minutes in 8 different levels
- Daylight detection with 5 brightness levels and learning mode
- Up to 9 slave luminaires can be operated with one master luminaire (max. up to 150 W / 230 W)
- Suitable for outdoor use to a limited extent only, as it is sensitive to all movements

# AC movement sensor luminaires with 24 GHz technology (Master / Slave) are not compatible with other movement sensor luminaires.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]		Lighting control
Ceiling and wall lumi	inaires with integrated	d movement sei	nsor				Price Category 11
Glass							
312132.00X.19 *	D 230, H 63	830	1000	12	83	Master	on/off
312132.00X.191 *	D 230, H 63	830	1000	13	77	Slave	on/off
312132.00X.1.19 *	D 230, H 63	840	1000	12	83	Master	on/off
312132.00X.1.191 *	D 230, H 63	840	1000	13	77	Slave	on/off
Diffuser: plastic (PM	MA)						
312135.00X.19 *	D 230, H 63	830	1150	12	96	Master	on/off
312135.00X.191 *	D 230, H 63	830	1150	13	88	Slave	on/off
312135.00X.1.19 *	D 230, H 63	840	1100	12	92	Master	on/off
312135.00X.1.191 *	D 230, H 63	840	1100	13	85	Slave	on/off
Diffuser: plastic (pol	ycarbonate)						
312135.00X.2.19 *	D 230, H 63	830	1300	12	108	Master	on/off
312135.00X.2.191 *	D 230, H 63	830	1300	13	100	Slave	on/off
312135.00X.3.19 *	D 230, H 63	840	1300	12	108	Master	on/off
312135.00X.3.191 *	D 230, H 63	840	1300	13	100	Slave	on/off









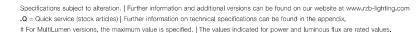
LED vs. conventional lamps

LED 12 / 13 W ≈

1 x 26 W TC-D (34 W Psys)



<sup>\*</sup> With mains voltage LED









Comparison LED vs. conventional lamps

**LED 11 W ≈** 1 x 26 W TC-D (34 W Psys)

**LED 24 / 25 W** ≈ 2 x 26 W TC-D (68 W Psys)

**LED 30 W ≈** 3 x 26 W TC-D (102 W Psys)

LED 41 W ≈

4 x 26 W TC-D (136 W Psys)

LED 44 W ≈

2 x 57 W TC-TEL (116 W Psys)

#### Ceiling and wall luminaires | FLAT SLIM disc

Type of protection: IP 20 (D 560 mm), IP 65 Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

 $\begin{tabular}{ll} \textbf{MultiColour:} Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K. \end{tabular}$ 

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lur	minaires					Price Category 11
D 380 mm						
312638.00X	D 380, H 70	830, 840	11502500	1124	105	on/off
312638.00X.76	D 380, H 70	830, 840	11502500	1124	105	DALI
312638.00X.730	D 380, H 70	830, 840	11502500	1124	105	smart+free
D 480 mm						
312639.00X	D 480, H 70	830, 840	24504000	2541	100	on/off
312639.00X.76	D 480, H 70	830, 840	24504000	2541	100	DALI
312639.00X.730	D 480, H 70	830, 840	24504000	2541	100	smart+free
D 560 mm						
312640.00X	D 560, H 70	830, 840	35005150	3044	120	on/off
312640.00X.76	D 560, H 70	830, 840	35005150	3044	120	DALI
312640.00X.730	D 560, H 70	830, 840	35005150	3044	120	smart+free

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.





# Comparison LED vs. conventional lamps

**LED 11 W ≈** 1 x 26 W TC-D (34 W Psys)

**LED 24 W ≈** 2 x 26 W TC-D (68 W Psys)

# Ceiling and wall luminaires | FLAT SLIM disc - daylight sensor

Type of protection: **IP 65**Protection class: **I** 

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

**MultiColour:** Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall luminaires with integrated daylight sensor						Price Category 1
312638.00X.25	D 380, H 70	830, 840	11502500	1124	105	on/off

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.











#### Ceiling and wall luminaires | FLAT SLIM disc - movement sensor DALI/BT

Type of protection: IP 20 (D 560 mm), IP 65

Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

MultiColour: Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

#### Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5,8 GHz with integrated corridor function.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via app.
- Sensors can be networked via Bluetooth®.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall I	Price Category 11					
312638.00X.19	D 380, H 70	830, 840	11502500	1124	105	Sensor
312639.00X.19	D 480, H 70	830, 840	24504000	2541	100	Sensor
312640.00X.19	D 560, H 70	830, 840	35005150	3044	120	Sensor

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.









#### Comparison

LED vs. conventional lamps

#### LED 11 W ≈

1 x 26 W TC-D (34 W Psys)

#### LED 24 / 25 W ≈

2 x 26 W TC-D (68 W Psys)

#### LED 30 W ≈

3 x 26 W TC-D (102 W Psys)

#### I FD 41 W ~

4 x 26 W TC-D (136 W Psys)

#### I FD 44 W ≈

2 x 57 W TC-TEL (116 W Psys)

# Ceiling and wall luminaires | FLAT SLIM disc - movement sensor on/off

Type of protection: IP 20 (D 560 mm), IP 65

Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

MultiColour: Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver



#### Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall I	Price Category 11					
312682.00X.19	D 380, H 70	830, 840	11502500	1124	105	Sensor
312683.00X.19	D 480, H 70	830, 840	24504000	2541	100	Sensor
312684.00X.19	D 560, H 70	830, 840	35005150	3044	120	Sensor

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.





#### Comparison LED vs. conventional lamps

## LED 11 W ≈

1 x 26 W TC-D (34 W Psys)

# LED 24 / 25 W ≈

2 x 26 W TC-D (68 W Psys)

## LED 30 W ≈

3 x 26 W TC-D (102 W Psys)

# LED 41 W≈

4 x 26 W TC-D (136 W Psys)

## LED 44 W ≈

2 x 57 W TC-TEL (116 W Psys)







LED 11 W ≈

# Comparison LED vs. conventional lamps

1 x 26 W TC-D (34 W Psys)

**LED 22 / 24 W** ≈ 2 x 26 W TC-D (68 W Psys)

LED 28 W ≈

3 x 26 W TC-D (102 W Psys)

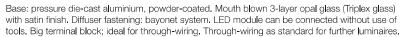
**LED 38 W ≈** 4 x 26 W TC-D (136 W Psys)

LED 40 W ≈

2 x 57 W TC-TEL (116 W Psys)

## Ceiling and wall luminaires | FLAT SLIM step

Type of protection: **IP 65** Protection class: **I** 



MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

 $\label{eq:MultiColour:Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.$ 

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

D 350 mm           312635.00X         D 350, H 70         830, 840         12002500         1122         114         on/off           312635.00X.76         D 350, H 70         830, 840         12002500         1122         114         DALI           312635.00X.730         D 350, H 70         830, 840         12002500         1122         114         smart+free           D 450 mm           312636.00X         D 450, H 70         830, 840         24504150         2438         109         on/off		Lighting control	System efficiency# [lm/W]	System power [W]	Luminous flux [lm]	Light colour	Dimensions [mm]	Reference number
312635.00X         D 350, H 70         830, 840         12002500         1122         114         on/off           312635.00X.76         D 350, H 70         830, 840         12002500         1122         114         DALI           312635.00X.730         D 350, H 70         830, 840         12002500         1122         114         smart+free           D 450 mm           312636.00X         D 450, H 70         830, 840         24504150         2438         109         on/off	e Category 11	Price					naires	Ceiling and wall lumi
312635.00X.76       D 350, H 70       830, 840       12002500       1122       114       DALI         312635.00X.730       D 350, H 70       830, 840       12002500       1122       114       smart+free         D 450 mm         312636.00X       D 450, H 70       830, 840       24504150       2438       109       on/off								D 350 mm
312635.00X.730 D 350, H 70 830, 840 12002500 1122 114 smart+free D 450 mm 312636.00X D 450, H 70 830, 840 24504150 2438 109 on/off		on/off	114	1122	12002500	830, 840	D 350, H 70	312635.00X
D 450 mm 312636.00X D 450, H 70 830, 840 24504150 2438 109 on/off		DALI	114	1122	12002500	830, 840	D 350, H 70	312635.00X.76
312636.00X D 450, H 70 830, 840 24504150 2438 109 on/off	эе	smart+fre	114	1122	12002500	830, 840	D 350, H 70	312635.00X.730
								D 450 mm
312636.00X.76 D 450. H 70 830. 840 24504150 2438 109 DALI		on/off	109	2438	24504150	830, 840	D 450, H 70	312636.00X
		DALI	109	2438	24504150	830, 840	D 450, H 70	312636.00X.76
312636.00X.730 D 450, H 70 830, 840 24504150 2438 109 smart+free	эе	smart+fre	109	2438	24504150	830, 840	D 450, H 70	312636.00X.730
D 530 mm								D 530 mm
312637.00X D 530, H 70 830, 840 35005000 2840 129 on/off		on/off	129	2840	35005000	830, 840	D 530, H 70	312637.00X
312637.00X.76 D 530, H 70 830, 840 35005000 2840 129 DALI		DAL	129	2840	35005000	830, 840	D 530, H 70	312637.00X.76
312637.00X.730 D 530, H 70 830, 840 35005000 2840 129 smart+free	e	smart+fre	129	2840	35005000	830, 840	D 530, H 70	312637.00X.730

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.





# Comparison LED vs. conventional lamps

**LED 11 W** ≈ 1 x 26 W TC-D (34 W Psys)

LED 22 W ≈

2 x 26 W TC-D (68 W Psys)

# Ceiling and wall luminaires | FLAT SLIM step - daylight sensor

Type of protection: **IP 65**Protection class: **I** 

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring, Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

**MultiColour:** Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control	
Ceiling and wall luminaires with integrated daylight sensor						Price Cat	egory 11
312635.00X.25	D 350, H 70	830, 840	12002500	1122	114	on/off	

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.











#### Ceiling and wall luminaires | FLAT SLIM step - movement sensor DALI/BT

Type of protection: IP 65

Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

 $\begin{tabular}{ll} \textbf{MultiColour:} Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K. \end{tabular}$ 

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz with integrated corridor function.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via app.
- Sensors can be networked via Bluetooth®.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall I	Price Category 11					
312635.00X.19	D 350, H 70	830, 840	12002500	1122	114	Sensor
312636.00X.19	D 450, H 70	830, 840	24504150	2438	109	Sensor
312637.00X.19	D 530, H 70	830, 840	35005000	2840	129	Sensor

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.









# Comparison

LED vs. conventional lamps

#### LED 11 W ≈

1 x 26 W TC-D (34 W Psys)

#### LED 22 / 24 W ≈

2 x 26 W TC-D (68 W Psys)

#### LED 28 W ≈

3 x 26 W TC-D (102 W Psys)

#### LED 38 W ≈

4 x 26 W TC-D (136 W Psys)

#### I FD 40 W ≈

2 x 57 W TC-TEL (116 W Psys)

# Ceiling and wall luminaires | FLAT SLIM step - movement sensor on/off

Type of protection: IP 65

Protection class: I

Base: pressure die-cast aluminium, powder-coated. Mouth blown 3-layer opal glass (Triplex glass) with satin finish. Diffuser fastening: bayonet system. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

**MultiColour:** Colour temperature individually adjustable either 3000 K or 4000 K via switching element. Factory setting is 3000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver



# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lu	Price Category 11					
312679.00X.19	D 350, H 70	830, 840	12002500	1122	114	Sensor
312680.00X.19	D 450, H 70	830, 840	24504150	2438	109	Sensor
312681.00X.19	D 530, H 70	830, 840	35005000	2840	129	Sensor

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.







# LED 11 W ≈

1 x 26 W TC-D (34 W Psys)

LED vs. conventional lamps

## LED 22 / 24 W ≈

2 x 26 W TC-D (68 W Psys)

## LED 28 W ≈

3 x 26 W TC-D (102 W Psys)

#### LED 38 W ≈

4 x 26 W TC-D (136 W Psys)

#### LED 40 W ≈

2 x 57 W TC-TEL (116 W Psys)







**LED 19 / 21 W** ≈ 2 x 26 W TC-D (68 W Psys)

# Comparison LED vs. conventional lamps LED 12 / 13 W ≈ 1 x 26 W TC-D (34 W Psys)

## Ceiling and wall luminaires | FLAT SLIM square

Type of protection: IP 65 wall mounting, IP 40 ceiling mounting Protection class: I Impact protection: IK07

Base: pressure die-cast aluminium, powder-coated. Diffuser: matt or high-polish crystal glass, painted inside, with fixing device. Diffuser with frame made of pressure die-cast aluminium, powder-coated, bonded. Diffuser attached with clip system. Base fixing slots outside of gasketed area, drill hole deviations can be compensated. With membrane valve as a standard to avoid condensed water. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

 $\textbf{MultiLumen:} \ 2 \ \text{steps adjustable luminous flux.} \ \text{Factory setting is the highest luminous flux.}$ 

 $\textbf{MultiColour:} \ \textbf{Colour temperature adjustable via jumper.} \ \textbf{Factory setting is 4000 K.}$ 

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [im]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lur	ninaires					Price Category 11
Diffuser: high-polis	h crystal glass					
312538.00X	L 300, B 300, H 67	830, 840	12502200	1219	116	on/off
312538.00X.76	L 300, B 300, H 67	830, 840	13002300	1321	110	DALI
312538.00X.730	L 300, B 300, H 67	830, 840	13002300	1321	110	smart+free
Diffuser: matt cryst	al glass					
312537.00X	L 300, B 300, H 67	830, 840	13002300	1219	121	on/off
312537.00X.76	L 300, B 300, H 67	830, 840	13502400	1321	114	DALI
312537.00X.730	L 300, B 300, H 67	830, 840	13502400	1321	114	smart+free

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.







Diffuser: matt crystal glass











#### Ceiling and wall luminaires | FLAT SLIM square - movement sensor DALI/BT

Type of protection: IP 65 wall mounting, IP 40 ceiling mounting Protection class: I

Impact protection: IK07

Base: pressure die-cast aluminium, powder-coated. Diffuser: matt or high-polish crystal glass, painted inside, with fixing device. Diffuser with frame made of pressure die-cast aluminium, powder-coated, bonded. Diffuser attached with clip system. Base fixing slots outside of gasketed area, drill hole deviations can be compensated. With membrane valve as a standard to avoid condensed water. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

MultiColour: Colour temperature adjustable via jumper. Factory setting is 4000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz with integrated corridor function.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via app.
- Sensors can be networked via Bluetooth®.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lu	uminaires with integrated H	F movement se		(**)	[	Price Category 11
Diffuser: high-pol	ish crystal glass					
312669.00X.19	L 300, B 300, H 67	830, 840	13002300	1321	110	Sensor
Diffuser: matt crys	stal glass					
312671.00X.19	L 300, B 300, H 67	830, 840	13502400	1321	114	Sensor
					1 1 11 11 6 11	

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.









# Comparison

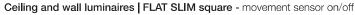
LED vs. conventional lamps

LED 13 W ≈

1 x 26 W TC-D (34 W Psys)

LED 21 W ≈

2 x 26 W TC-D (68 W Psys)



Type of protection: IP 65 wall mounting, IP 40 ceiling mounting

Protection class: I

Impact protection: IK07

Base: pressure die-cast aluminium, powder-coated. Diffuser: matt or high-polish crystal glass, painted inside, with fixing device. Diffuser with frame made of pressure die-cast aluminium, powder coated, bonded. Diffuser attached with clip system. Base fixing slots outside of gasketed area, drill hole deviations can be compensated. With membrane valve as a standard to avoid condensed water. LED module can be connected without use of tools. Big terminal block; ideal for through-wiring. Through-wiring as standard for further luminaires.

 $\textbf{MultiLumen:}\ 2\ \text{steps adjustable luminous flux.}\ \text{Factory setting is the highest luminous flux.}$ 

MultiColour: Colour temperature adjustable via jumper. Factory setting is 4000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver



# eeldot winner 2021



# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lu	ıminaires with integrated H	F movement se	ensor			Price Category 11
Diffuser: high-poli	sh crystal glass					
312665.00X.19	L 300, B 300, H 67	830, 840	13002300	1321	110	Sensor
Diffuser: matt crys	stal glass					
312667.00X.19	L 300, B 300, H 67	830, 840	13502400	1321	114	Sensor

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.



LED 13 W ≈

1 x 26 W TC-D (34 W Psys)

LED 21 W ≈

2 x 26 W TC-D (68 W Psys)





Ceiling and wall luminaires

## ARCHITECTURE

- Reduced: The flat design provides universal applicability with circular or square glass cover option.
- Long service life: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.
- **Protected:** The high type of protection IP 66 enables maintenance-free, plain LED operation.

## LIGHTING DESIGN

- **Plannable:** Second cable inlet for loop through.
- Flexible: MultiLumen variants 4 steps adjustable luminous flux.
- Funktional: MultiColour variants Colour temperature individually adjustable either 3000 K or 4000 K.

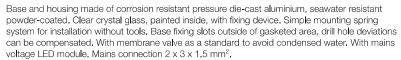
# INSTALLATION

- Advantageous: Quick installation:
  - Drill hole deviations can be compensated
  - Generous space for displacing cables allows the wall outlet even in the luminaire centre
  - Electrical connection via piano key terminal
  - Diffuser retained in cover

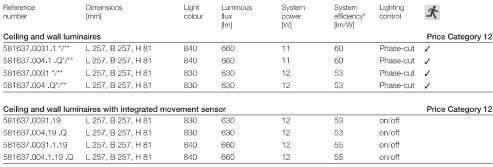


# Ceiling and wall luminaires | CADERO quadra

Type of protection: IP 65 Protection class: I Impact protection: IK05



Available colours (X): 31 = anthracite, 4 = silver



<sup>\*</sup> Suitable for phase cut dimming (10-100%) | \*\* DALI dimmable versions available



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Comparison LED vs. conventional lamps

LED 11 / 12 W ≈ 1 x 18 W TC-D (26 W Psys)

## Ceiling and wall luminaires | CADERO disca

Type of protection: IP 66 Protection class: I

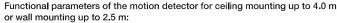
Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Clear crystal glass, painted inside, with fixing device. Diffuser fastening: bayonet system. With membrane valve as a standard to avoid condensed water, LED module can be connected without use of tools. The large connection compartment on the back for convenient connections is also ideal for through wiring,

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

MultiLumen: 4 steps adjustable luminous flux. Factory setting is the lowest luminous flux.

MultiColour: Colour temperature adjustable via switching element for 3000 K (factory setting) and 4000 K.

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.



- HF detector 5.8 GHz.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lu	minaires					Price Category 12
582110.00X	D 311, H 64	830, 840	330880	3,59,5	97	on/off
582110.00X.76	D 311, H 64	830, 840	8202350	9,526	90	DALI
582110.00X.730	D 311, H 64	830, 840	8202350	1027	87	smart+free
Ceiling and wall lu	minaires with integrated	d HF movement se	ensor			Price Category 12
Ceiling and wall lu 582110.00X.19	minaires with integrated D 311, H 64	d <b>HF movement se</b> 830, 840	ensor 330880	4,510	88	Price Category 12 Sensor
582110.00X.19		830, 840		4,510	88	











## Comparison LED vs. conventional lamps

LED 3,5 / 4,5 W ≈ 1 x 9 W TC-S (16 W Psys)

LED 9,5 / 10 W ≈

1 x 26 W TC-D (34 W Psys)

LED 26 / 27 W ≈

1 x 57 W TC-TEL (59 W Psys)



This luminaire is also available as selfcontained and/or emergency luminaire for central battery systems according to EN 60598 2-22 - further information page 11.



# ROUNDED®

Ceiling and wall luminaires

# ARCHITECTURE

- Reduced: Elegant appearance without visible screws featuring bayonet lock.
- Long service life: Seawater resistant coating.
- Optimum: Integral membrane valve for pressure compensation and avoidance of condensation.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Efficient: Versions with daylight sensor,
   HF motion detector or Casambi smart+free
   Bluetooth® control.
- Protected: The high type of protection IP 66 enables maintenance-free, plain LED operation.
- Flexible: MultiLumen: 4 steps adjustable luminous flux.
- Funktional: MultiColour Colour temperature individually adjustable either 3000 K or 4000 K.

# INSTALLATION

- Standard: Second cable inlet for loop through.
- Advantageous: Quick installation:
  - Drill hole deviations can be compensated
  - Generous space for displacing cables allows the wall outlet even in the luminaire centre
  - Electrical connection via piano key terminal
  - Diffuser retained in cover



Further luminaires of this series, see: Outdoor lighting | Wall luminaires



## Ceiling and wall luminaires | ROUNDED

Type of protection: **IP 66**Protection class: I
Impact protection: **I**K07

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Diffuser: crystal glass (satin finish) or opal plastic (polycarbonate); with diffuser fixing, Diffuser fastening: bayonet system. With membrane valve as a standard to avoid condensed water. LED module can be connected without use of tools. The large connection compartment on the back for convenient connections is also ideal for through wiring.

MultiLumen: 4 steps adjustable luminous flux. Factory setting is the lowest luminous flux.

MultiColour: Colour temperature adjustable via switching element for 3000 K (factory setting) and 4000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz.

582107.00X.25

D 300, H 71

- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lui	minaires					Price Category 12
Glass						
582104.00X	D 300, H 71	830, 840	340890	3,59,5	100	on/off
582104.00X.76	D 300, H 71	830, 840	8602450	9,526	94	DALI
582104.00X.730	D 300, H 71	830, 840	8602450	1027	91	smart+free
Plastic (polycarbor	nate)					
582107.00X	D 300, H 71	830, 840	4501150	3,59,5	131	on/off
582107.00X.76	D 300, H 71	830, 840	11503250	9,526	126	on/off
582107.00X.730	D 300, H 71	830, 840	11503250	1027	120	smart+free
Ceiling and wall lui	minaires with integrate	d HF movement s	sensor			Price Category 12
Glass						
582104.00X.19	D 300, H 71	830, 840	340890	4,510	89	Sensor
Plastic (polycarbor	nate)					
582107.00X.19	D 300, H 71	830, 840	4501150	4,510	115	Sensor
Ceiling and wall lur	minaires with integrate	d daylight sensor				Price Category 12
Glass						
582104.00X.25	D 300, H 71	830, 840	340890	4,510	89	on/off
Plastic (polycarbor	nate)					

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.

4,5...10

115

830, 840 450...1150







Comparison

LED vs. conventional lamps

LED 3,5 / 4,5 W ≈

1 x 9 W TC-S (16 W Psys)

LED 9,5 / 10 W ≈

1 x 26 W TC-D (34 W Psys)

**LED 26 / 27 W** ≈ 1 x 57 W TC-TEL (59 W Psys)







on/off









# Comparison LED vs. conventional lamps

LED 3,5 / 4,5 W ≈

1 x 9 W TC-S (16 W Psys)

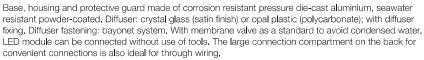
**LED 9,5 / 10 W ≈** 1 x 26 W TC-D (34 W Psys)

LED 26 / 27 W ≈

1 x 57 W TC-TEL (59 W Psys)

## Ceiling and wall luminaires | ROUNDED

Type of protection: **IP 66**Protection class: I
Impact protection: **IK**07



MultiLumen: 4 steps adjustable luminous flux. Factory setting is the lowest luminous flux.

MultiColour: Colour temperature adjustable via switching element for 3000 K (factory setting) and 4000 K.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

# Functional parameters of the motion detector for ceiling mounting up to 4.0 m or wall mounting up to 2.5 m:

- HF detector 5.8 GHz.
- Detection angle 30°-150°.
- Detection range up to 6 m radial, depending on mounting situation and diffusor.
- Hold time, daylight threshold and sensitivity adjustable via dip switch.
- As master luminaire switchable up to 400 W (resistive load), 300 VA (LED).

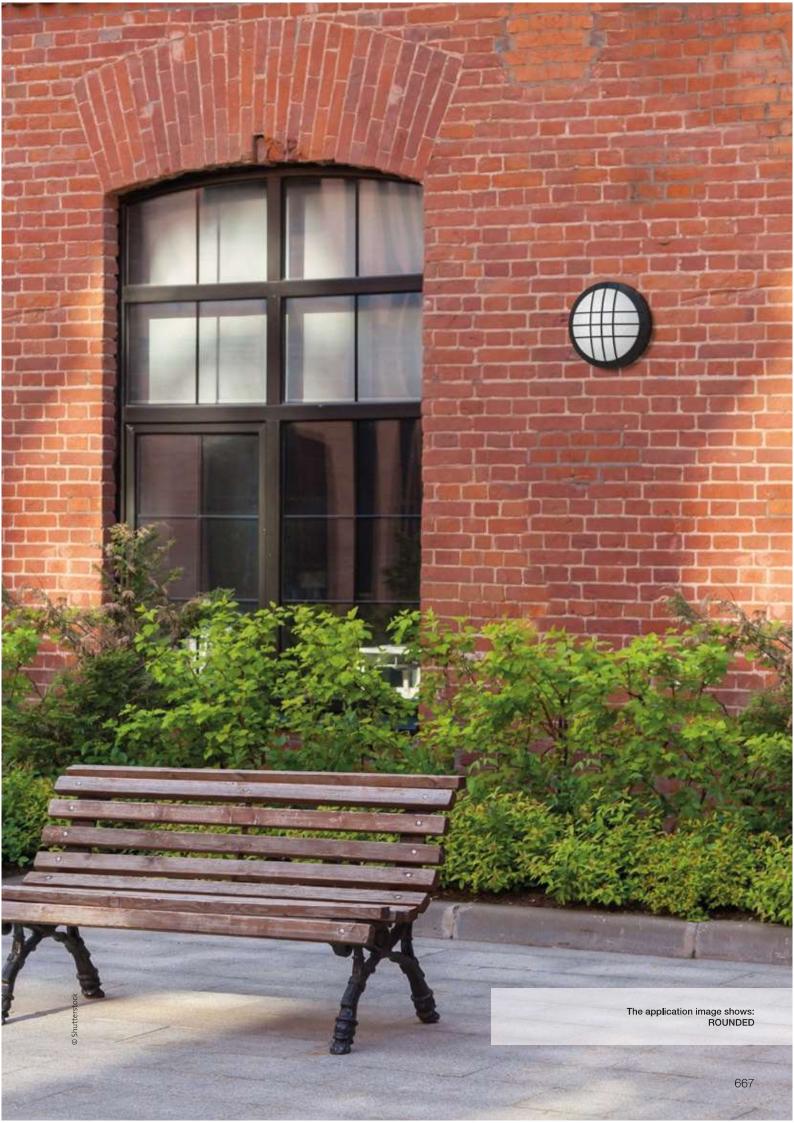
	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
	Ceiling and wall lun	ninaires					Price Category 12
	Glass						
	582106.00X	D 300, H 77	830, 840	310820	3,59,5	91	on/off
	582106.00X.76	D 300, H 77	830, 840	7001950	9,526	76	DALI
	582106.00X.730	D 300, H 77	830, 840	7001950	1027	72	smart+free
5	Plastic (polycarbon	ate)					
Ц	582109.00X	D 300, H 77	830, 840	4101100	3,59,5	120	on/off
	582109.00X.76	D 300, H 77	830, 840	9402600	9,526	100	DALI
	582109.00X.730	D 300, H 77	830, 840	9402600	1027	96	smart+free
			,				
	Ceiling and wall lun	ninaires with integrated HF r	novement se	ensor			Price Category 12
	Glass						
	582106.00X.19	D 300, H 77	830, 840	310820	4,510	82	Sensor
5	Plastic (polycarbon	ate)					
Ц	582109.00X.19	D 300, H 77	830, 840	4101100	4,510	110	Sensor
	Ceiling and wall lun	ninaires with integrated dayl	ight sensor				Price Category 12
	Glass						
	582106.00X.25	D 300, H 77	830, 840	310820	4,510	82	on/off
5	Plastic (polycarbon	ate)					
Ц	582109.00X.25	D 300, H 77	830, 840	4101100	4,510	110	on/off

MultiLumen/MultiColour: Specification of the lowest and highest possible lumen output. You will find more detailed information on www.rzb-lighting.com.











# ROUNDED® MAXI

Ceiling and wall luminaires

# ARCHITECTURE

- Reduced: Elegant appearance without visible screws featuring bayonet lock.
- Long service life: Seawater resistant coating.
- Optimum: Integral membrane valve for pressure compensation and avoidance of condensation.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

## LIGHTING DESIGN

- Efficient: Versions with motion detector.
- Protected: The high type of protection IP 65 enables maintenance-free, plain LED operation.
- Varied: Emergency versions for escape route lighting and central battery system available.

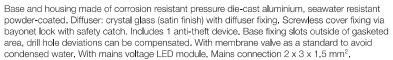
# INSTALLATION

- **Standard:** Second cable inlet for loop through.
- Advantageous: Quick installation:
  - Drill hole deviations can be compensated
  - Generous space for displacing cables allows the wall outlet even in the luminaire centre
  - Electrical connection via piano key terminal
  - Diffuser retained in cover

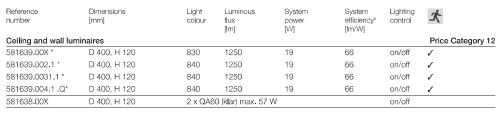


## Ceiling and wall luminaires | ROUNDED maxi

Type of protection: IP 65 Protection class: I Impact protection: IK07



Available colours (X): 2 = white, 31 = anthracite, 4 = silver



Ceiling and wall luminaires with integrated HF movement sensor and light sensor					Price Category 12	
581639.00X.19 **	D 400, H 120	830	1250	20	63	on/off
581639.00X.1.19 **	D 400, H 120	840	1250	19	66	on/off

<sup>\*</sup> Suitable for phase cut dimming (10-100%) | \*\* The light sensor cannot be operated separately as a daylight sensor

Theft protection		Price Category 12
982410.003	L 13, B 11, H 16	









Comparison LED vs. conventional lamps

LED 19 / 20 W ≈ 2 x 18 W TC-D (52 W Psys)

# Ceiling and wall luminaires | ROUNDED maxi

Type of protection: IP 65 Protection class: I Impact protection: IK07

Base and housing made of corrosion resistant pressure die-cast aluminium, seawater resistant powder-coated. Diffuser: crystal glass (satin finish) with diffuser fixing. Screwless cover fixing via bayonet lock with safety catch. Includes 1 anti-theft device. Base fixing slots outside of gasketed area, drill hole deviations can be compensated. With membrane valve as a standard to avoid condensed water. With mains voltage LED module. Mains connection 2 x 3 x 1.5 mm<sup>2</sup>.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency# [lm/W]	Lighting control	术
Ceiling and wall lum	inaires						Price Category 12
581641.00X *	D 400, H 127	830	1150	19	61	on/off	<b>√</b>
581641.00X.1 *	D 400, H 127	840	1150	19	61	on/off	✓
581640.00X	D 400, H 127	2 x QA6	60 (k <b>l</b> ar) max. 57	W		on/off	
Ceiling and wall lum	inaires with integrated	HF movement	sensor and lig	ht sensor			Price Category 12
581641.00X.1.19 **	D 400, H 127	840	1150	19	61	on/off	
581641.00X.19 **	D 400, H 127	830	1150	20	58	on/off	

<sup>\*</sup> Suitable for phase cut dimming (10-100%) | \*\* The light sensor cannot be operated separately as a daylight sensor

Theft protection		Price Category 12
982410.003	L 13, B 11, H 16	









Comparison LED vs. conventional lamps

LED 19 / 20 W ≈

2 x 18 W TC-D (52 W Psys)



This luminaire is also available as selfcontained and/or emergency luminaire for central battery systems according to EN 60598 2-22 - further information page 11.



# **ALU-SUPERIOR**

Ceiling and wall luminaires

# ARCHITECTURE

- Long service life: The sturdy construction in die-cast aluminium guarantees a long service life.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components,

# LIGHTING DESIGN

- Optimum: Integral membrane valve for pressure compensation and avoidance of condensation.
- Protected: The high type of protection IP 65 enables maintenance-free, plain LED operation.

# INSTALLATION

- **Standard:** Second cable inlet for loop through.
- Clever: A stainless steel bracket outside the sealed lamp compartment is used to certainly prevent installation failures.
   Additionally, drill hole tolerances can be compensated.



Further luminaires of this series, see: Outdoor lighting | Wall luminaires



## Ceiling and wall luminaires | ALU-SUPERIOR

Type of protection: **IP 65** Protection class: I Impact protection: IK08

Lighting

Base and cover ring: die-cast aluminium, powder-coated. Stainless steel mounting bracket with compensation for drill hole deviations. Diffuser: plastic (polycarbonate), opal. With membrane valve to avoid condensation, With mains voltage LED module, Mains connection 2 x 3 x 1.5  $\mathrm{mm}^2$  ,

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Dimensions

number	[mm]	colour	flux [lm]	power [W]	efficiency* [lm/W]	control	
Ceiling and wall	luminaires					Price Category 12	gory 12
51061.00X	D 245, H 120	840	410	6	68	on/off	
51050.00X	D 245, H 120	1 x QA60	0 (k <b>j</b> ar) max. 57 W			on/off	

Luminous

System

System



Comparison LED vs. conventional lamps

LED 6 W ≈ 1 x 60 W A60 (60 W Psys)

# Ceiling and wall luminaires | Alu-Superior

Type of protection: IP 65 Protection class: I Impact protection: IK08

Base and protective guard: die-cast aluminium, powder-coated. Stainless steel mounting bracket with compensation for drill hole deviations. Diffuser: plastic (polycarbonate), opal. With membrane

	condensation. With mai					
Available colo	urs (X): 2 = white, 31 = a	nthracite, 4 = si	lver			
Reference number	Dimensions [mm]	Light colour	Luminous flux	System power	System efficiency*	Lighting control



7

			[lm]	[W]	[lm/W]	
Ceiling and wall	luminaires with grille					Price Category 12
51063.00X	D 245, H 125	840	410	6	68	on/off
51052.00X	D 245, H 125	1 x QA6	60 (k <b>l</b> ar) max. 57 W			on/off



Comparison LED vs. conventional lamps

LED 6 W ≈ 1 x 60 W A60 (60 W Psys)

















# ALU-LUX OVAL

Ceiling and wall luminaires

# ARCHITECTURE

- Long service life: The sturdy construction in die-cast aluminium guarantees a long
- Advantageous: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Optimum: Integral membrane valve for pressure compensation and avoidance of
- **Protected:** The high type of protection IP 65 enables maintenance-free, plain LED operation.

# INSTALLATION

- Standard: Second cable inlet for loop through.
- Clever: A stainless steel bracket outside the sealed lamp compartment is used to certainly prevent installation failures. Additionally, drill hole tolerances can be compensated.



Further luminaires of this series, see: Outdoor lighting | Wall luminaires



## Ceiling and wall luminaires | ALU-LUX OVAL

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K07

ed.

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Crystal glass: matt inside. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated. With mains voltage LED module. Mains connection 1 x 3 x 2,5 mm². With membrane valve to avoid condensation.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lun	ninaires					Price Category 12
582061.00X *	L 258, B 148, H 86	830	490	8	61	on/off
582061.00X.1 *	L 258, B 148, H 86	840	540	8	68	on/off
582062.00X *	L 258, B 148, H 86	830	680	12	57	on/off
582062.00X.1 *	L 258, B 148, H 86	840	740	12	62	on/off
Ceiling and wall lun	ninaires with daylight sens	or				Price Category 12
582061.00X.25	L 258, B 148, H 86	830	490	8	61	on/off
582061.00X.1.25	L 258, B 148, H 86	840	540	8	68	on/off
582062.00X.25	L 258, B 148, H 86	830	680	12	57	on/off
582062.00X.1.25	L 258, B 148, H 86	840	740	12	62	on/off
* Outtable for other con-	+ -lii (4.0, 4.000()					

<sup>\*</sup> Suitable for phase cut dimming (10-100%)





#### Comparison

LED vs. conventional lamps

#### LED 8 W ≈

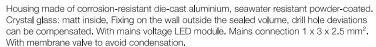
1 x 75 W A60 (75 W Psys) 1 x 13 W TC-D (19 W Psys)

#### LED 12 W ≈

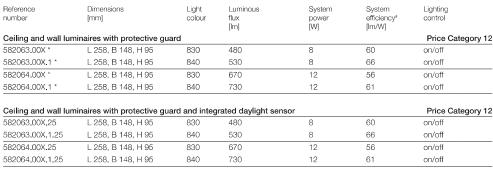
1 x 100 W A60 (100 W Psys) 1 x 18 W TC-D (26 W Psys)

## Ceiling and wall luminaires | ALU-LUX OVAL

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K07



Available colours (X): 2 = white, 31 = anthracite, 4 = silver



<sup>\*</sup> Suitable for phase cut dimming (10-100%)







# Comparison

LED vs. conventional lamps

## LED 8 W ≈

1 x 75 W A60 (75 W Psys) 1 x 13 W TC-D (19 W Psys)

# LED 12 W ≈

1 x 100 W A60 (100 W Psys) 1 x 18 W TC-D (26 W Psys)









# OVAL BULKHEAD LUMINAIRES

Die-cast aluminium oval bulkhead luminaires, Oval bulkhead luminaires, plastic

# ARCHITECTURE

- Classical: The oval bulkhead luminaire a classic with a new design.
- **Robust:** Suitable for use in harsh environments.

# LIGHTING DESIGN

- **Uniform:** Homogeneous and smooth light distribution.
- **Advantageous:** Diffuser made of textured toughened crystal glass.

# INSTALLATION

- Easy installation: Speedy installation thanks to external fastening clips.
- Standard: Suitable for through-wiring.
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.



## Die-cast aluminium oval bulkhead luminaires | ARENO

Type of protection: **IP 66**Protection class: I
Impact protection: **I**K03



High-quality housing made of pressure die-cast aluminium, powder coated. Diffuser made of textured toughened crystal glass, coated white on one side. Full-surface homogeneous illumination. Bezel ring: powder coated die-cast aluminium, screwed on the luminaire. Drill holes at the inside, with silicone. With three cable inlets: M20x1.5. Replaceable LED unit.

Available colour: 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lum	ninaires					Price Category 11
501047.004	L 227, B 141, H 87	840	500	8,5	59	on/off



Comparison LED vs. conventional lamps

LED 8,5 W ≈

1 x 75 W A60 (75 W Psys) 1 x 13 W TC-D (19 W Psys)

#### Die-cast aluminium oval bulkhead luminaires | ALU-STANDARD

Type of protection: **IP 66**Protection class: I
Impact protection: IK04



Robust housing: pressure die-cast aluminium, powder coated. Diffuser made of textured toughened crystal glass, opal. Diffuser attached with lateral spring clips. Full-surface homogeneous illumination. Speedy installation thanks to external fastening clips. Three cable inlets. Replaceable LED unit.

Available colour: 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Ceiling and wall lum	ninaires					Price Category 11
501045.004	L 171, B 123, H 70	840	740	8,5	87	on/off



Comparison LED vs. conventional lamps

LED 8,5 W ≈

1 x 100 W A60 (100 W Psys) 1 x 18 W TC-D (26 W Psys)

# Oval bulkhead luminaires, plastic | STANDARD

Type of protection: IP 43 ceiling mounting, IP 44 wall mounting Protection class: I

Impact protection: IK04

Housing: plastic. Diffuser made of textured toughened crystal glass, opal. Diffuser attached with lateral spring clips. Full-surface homogeneous illumination. Speedy installation thanks to external fastening clips, Three cable inlets, Replaceable LED unit,

Available colour: 9 = grey

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Ceiling and wall lu	ıminaires					Price Category 11
501044.009	L 171, B 123, H 70	840	740	8,5	87	on/off





Comparison LED vs. conventional lamps

LED 8,5 W ≈

1 x 100 W A60 (100 W Psys) 1 x 18 W TC-D (26 W Psys)









LUPALO POLLER 684-687



RZB



LUPALO LATERNE LUPALO TOWER 688-691



MEGA TOWER F 692-696



MEGA TOWER R 692-694 | 697



MEGA CONE 692-694 | 698



MEGA LATERNE R 692-694 | 699



MEGA LATERNE F 692-694 | 700



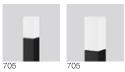
MEGA GÜRTELLINSE 692-694 | 701



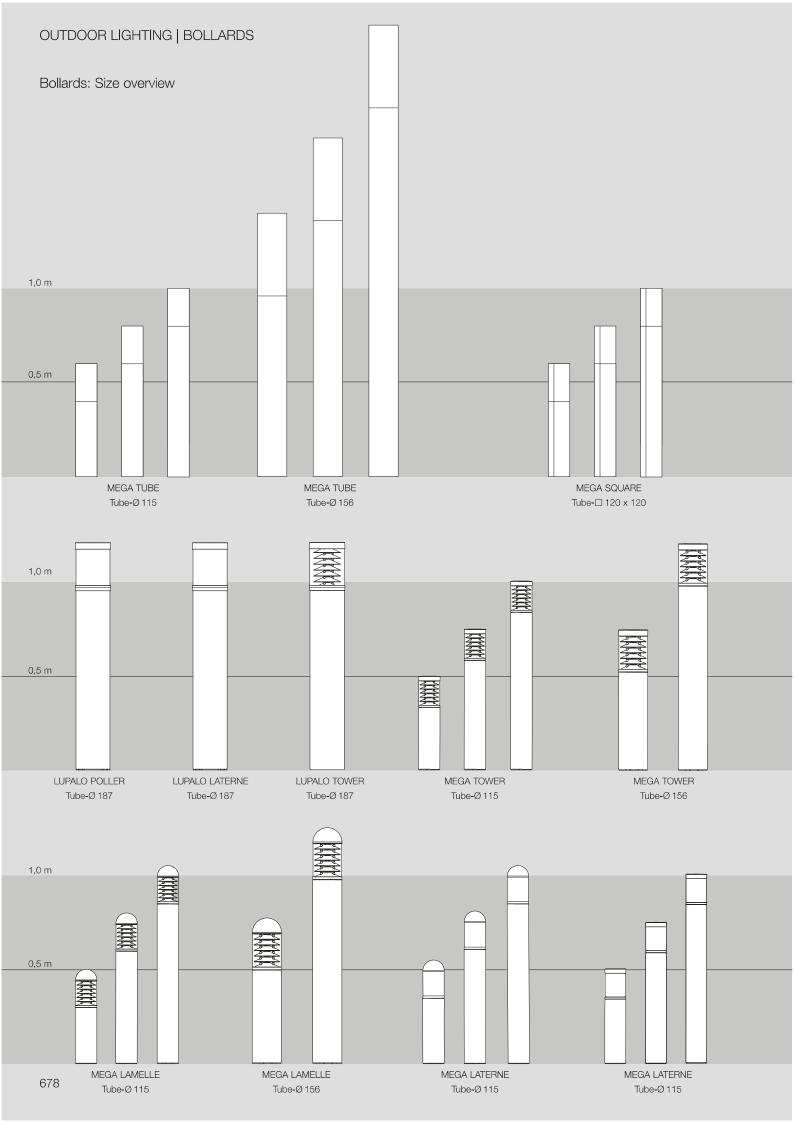
MEGA TUBE 692-694 | 702-703



MEGA GLASPOLLER 692-694 | 704



MEGA SQUARE 692-694 | 705





# **BOCARO®**

Everything at a glance



Highly efficient mains voltage LED, exchangeable.

Single pane safety glass (tempered glass) as a protection cover.



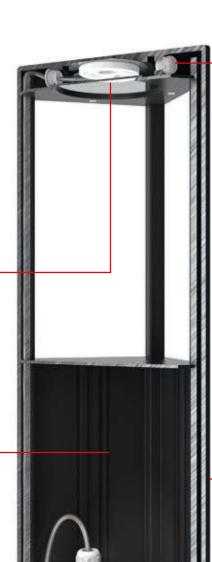
Square cross section made of corrosion resistant aluminium (seawater resistant powder-coated).



Connection box **IP 66** on base, max. 2 x 3 x 2,5 mm² for through wiring.



Exceedingly sturdy design thanks to stainless steel fixing base (fastening with 4 screws) and integrated columns in the profile cross section.



with Gore™ Protective Vents diaphragm valve to avoid condensed water.





## From light to charging:

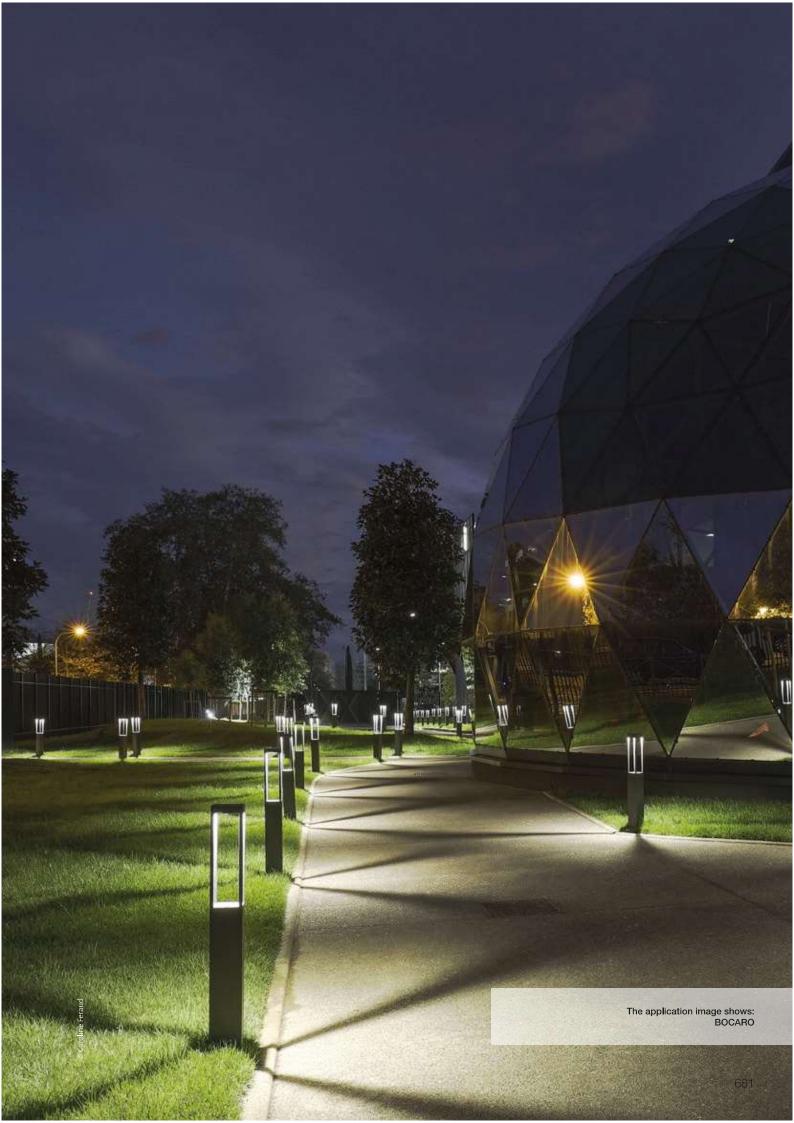
BOCARO is also available with an integrated charging module for electric cars.

www.rzb-energy.com

Ventilation slots for heat sink to avoid waterlogging in the luminaire tube.



Buried base made of aluminium, press nuts made of stainless steel.





# **BOCARO®**

Bollards

# ARCHITECTURE

- **Applicable:** Bollard for public areas such as paths, squares, parks or car parking areas.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.
- Long service life: Seawater resistant coating.

# LIGHTING DESIGN

- Advantageous: Smart and cost-saving LED modules for mains voltage on high efficiency level applied for energy saving operation.
- Clever: E-Charging-Module

# INSTALLATION

- **Robust:** Exceedingly sturdy design thanks to stainless steel fixing base and integrated columns in the profile cross section.
- **Straightforward:** Suitable for through-wiring.



Further luminaires of this series, see: Outdoor lighting | Pole luminaires

## The hybrid solution for light and charging station

RZB is actively shaping the change in mobility: Light for charging, charging in light. Robust products that have withstood wind and weather for decades as pure outdoor luminaires have been supplemented with the latest in charging technology.

Find out more at www.rzb-energy.com



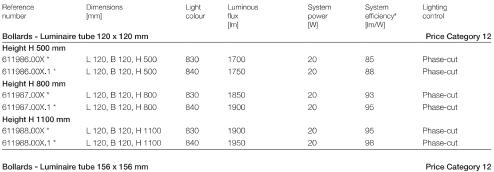


## Bollards | BOCARO

Type of protection: **IP 66**Protection class: I
Impact protection: **I**K06

Luminaire tube made of corrosion resistant aluminium with pressure die-cast aluminium cover, seawater resistant powder-coated. With recessed stainless steel fixing bracket. LED protection cover made of clear toughened safety glass. With mains voltage LED module, Connection box on base, max.  $2\times3\times2.5$  mm² for through wiring.

Available colours (X): 31 = anthracite, 4 = silver



Bollards - Luminaire	Price Category 12					
Height H 500 mm						
611989.00X *	L 156, B 156, H 500	830	1600	20	80	Phase-cut
611989.00X.1 *	L 156, B 156, H 500	840	1650	20	83	Phase-cut
Height H 800 mm						
611990.00X *	L 156, B 156, H 800	830	1850	20	93	Phase-cut
611990.00X.1 *	L 156, B 156, H 800	840	1900	20	95	Phase-cut
Height H 1100 mm						
611991.00X *	L 156, B 156, H 1100	830	1900	20	95	Phase-cut
611991.0031.1 .Q*	L 156, B 156, H 1100	840	1950	20	98	Phase-cut
611991.004.1 *	L 156, B 156, H 1100	840	1950	20	98	Phase-cut

<sup>\*</sup> With mains voltage LED

Aluminium burie	d base with anti-sink protect	ion and fixing set	Price Category 12
982103.010	L 120, B 120, H 401	Luminaire tube 120 x 120 mm	
982155 010	L 156 B 156 H 401	Luminaire tuhe 156 v 156 mm	





1 x 42 W TC-TEL (47 W Psys)





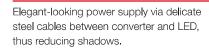




# **LUPALO®**

Everything at a glance

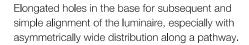
Extensively equipped with numerous features that ensure targeted lighting with efficient and lasting performance,

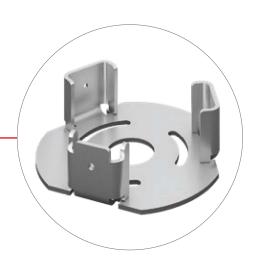






For maintenance the sealed luminaire head can be replaced quickly and safely as a complete module with a bayonet lock.









# From light to charging:

LUPALO is also available with an integrated charging module for electric cars.

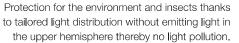
www.rzb-energy.com



Multi-chip LED with high-performance refractor optics for targeted light distribution on the surfaces to be illuminated.

Non-yellowing glass cylinder for consistently high light transmission.

Membrane valve for pressure equalisation to avoid condensation. Dark Sky











Control gear integrated in the luminaire.

DALI dimmable, CLO as standard, integrated surge protection and various dim options.

> C-track for junction box/fuse box behind the mast door.



Lockable mast door for easy access to the connection area.

The high protection class (IP66) socket allows easy connection with the option of through wiring.



Luminaire tube made of corrosion-resistant aluminum profile, seawater-resistant powder-coated.

Stable stainless steel fixing plate, hidden in the luminaire tube.

> Buried base made of aluminium, press nuts made of stainless steel.



### **LUPALO®**

Bollards

#### ARCHITECTURE

- **Applicable:** Bollard for public areas such as paths, squares, parks or car parking areas.
- **Dark Sky:** Protects insects and the environment. Avoiding light pollution.
- Guaranteed: Non-yellowing glass cylinder for consistently high light transmission.
- Robust: The use of low-corrosion aluminium alloys in combination with a two-layer, seawater-resistant coating and stainless steel fastening and connecting elements ensures durability.

#### LIGHTING DESIGN

- Efficient: Multi-chip LED with high-performance refractor optics.
- Long service life: LED rated life 100000 h ( $L_{\text{CLO}}$ ) at 25°C ambient temperature.
- **Standard:** Control gear with integrated surge protection up to 10 kV.
- **Configurable:** Different dim options are possible on request.
- Clever: E-Charging-Module

#### INSTALLATION

- Flexible: Modular design for combining different luminaire head and tube variants as required.
- Easy installation: Delivered with pre-installed connecting cable.
- **Safe:** Membrane valve to prevent condensation.





Further luminaires of this series, see: Outdoor lighting | Pole luminaires

#### The hybrid solution for light and charging station

RZB is actively shaping the change in mobility: Light for charging, charging in light. Robust products that have withstood wind and weather for decades as pure outdoor luminaires have been supplemented with the latest in charging technology.

Find out more at www.rzb-energy.com





#### Bollards | LUPALO POLLER - Luminaire head

Type of protection: **IP 65** Protection class: II

Modular bollard luminaires consisting of luminaire head and tube, Luminaire head made of corrosion resistant die-cast aluminium, seawater resistant powder-coated, stainless steel screws. Diffuser: glass, transparent. Multi-chip LED with high-performance refractor optics. Converter integrated in the luminaire head, Elegant-looking power supply via delicate steel cables between converter and LED. With membrane valve to avoid condensation. With C-track for junction box / fuse box behind the mast door. Connection box on base, max,  $2\times3\times2.5~\text{mm}^2$  for through wiring,

#### Please order fuse box separately.

Modular design: please remember to order the luminaire tube separately for each luminaire head.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Bollards - Lumina	ire head					Price Category 12
Symmetrical light	distribution for area light	ing				
982705.00X	D 187, H 322	730	3900	36	108	DALI
982705.00X.1	D 187, H 322	740	4150	36	115	DALI
Asymmetrical ligh	nt distribution					
982705.01X	D 187, H 322	730	3500	36	97	DAL
982705.01X.1	D 187, H 322	740	3700	36	103	DALI



Dzo = Dro



Comparison LED vs. conventional lamps LED 36 W ≈ 1 x 57 W TC-TEL (59 W Psys)

#### Modules | LUPALO - Luminaire tube

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate, With C-track for junction box / fuse box behind the mast door. The robust stainless steel mounting base ensures long-term stability. Elongated holes in the base for subsequent and simple alignment of the luminaire, especially with asymmetrically wide distribution along a pathway. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2$  for through wiring.

Available colours (X): 31 = anthracite, 4 = silver

Reference Dimensions number [mm]

Module - Luminaire tube with base plate Price Category 12

612363.00X D 180, H 957 612364.00X \* D 180, H 1150











<sup>\*</sup> Height matching the LUPALO charging unit (RZB Energy)

# LUPALO® LATERNE/TOWER

Everything at a glance

Basic versions of the stable bollard light for public areas. Ready for connection, equipped with all relevant basic features that bring light into the dark.

For maintenance the sealed luminaire head can be replaced quickly and safely as a complete module with a bayonet lock.





Elongated holes in the base for subsequent and simple alignment of the luminaire.









#### From light to charging:

LUPALO is also available with an integrated charging module for electric cars.

www.rzb-energy.com

### OUTDOOR LIGHTING | BOLLARDS



A light transmission bar made of highly transparent, clear plastic (PMMA) with lasered optical structure diverts the light horizontally, ensuring optimum and even light distribution on the floor.

The use of state-of-the-art LED technology allows reduced energy consumption and a long LED service life.

C-track for junction box/fuse box behind the mast door.

IP66

The high protection class (IP66) socket allows easy connection with the option of through wiring.



Luminaire tube made of corrosion-resistant aluminum profile, seawater-resistant powder-coated.

Stable stainless steel fixing plate, hidden in the luminaire tube.

Membrane valve for pressure

equalisation to avoid condensation.

Lockable mast door for easy access

to the connection area.

Buried base made of aluminium, press nuts made of stainless steel.





Bollards

#### ARCHITECTURE

- **Applicable:** Bollard for public areas such as paths, squares, parks or car parking areas.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components. Not a disposable luminaire.
- Robust: The use of low-corrosion aluminium alloys in combination with a two-layer, seawater-resistant coating and stainless steel fastening and connecting elements ensures durability.

#### LIGHTING DESIGN

- Efficient: The high quality LED optics provide balanced brightness while minimising energy consumption.
- Versatile: Non-yellowing opal glass cylinder, or clear glass cylinder with translucent glare suppression louvres.

#### INSTALLATION

- Flexible: Modular design for combining different luminaire head and tube variants as required.
- Easy installation: Delivered with pre-installed connecting cable.
- **Safe:** Membrane valve to prevent condensation.



#### The hybrid solution for light and charging station

RZB is actively shaping the change in mobility: Light for charging, charging in light. Robust products that have withstood wind and weather for decades as pure outdoor luminaires have been supplemented with the latest in charging technology.

Find out more at www.rzb-energy.com



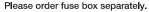


#### Bollards | LUPALO LATERNE - Luminaire head

Type of protection: IP 65

Protection class: I

Modular bollard luminaires consisting of luminaire head and tube. Luminaire head made of corrosion resistant die-cast aluminium, seawater resistant powder-coated, stainless steel screws. Luminaire head made of die cast aluminium, powder coated, with opal cylinder (glass). With mains voltage LED module. With membrane valve to avoid condensation, With C-track for junction box / fuse box behind the mast door. Connection box on base, max. 2 x 3 x 2.5 mm<sup>2</sup> for through wiring.



Modular design: please remember to order the luminaire tube separately for each luminaire head.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Bollards - Luminaire	e head					Price Category 12
982706.00X	D 187, H 326	830	650	20	33	Phase-cut
982706.00X.1	D 187, H 326	840	650	20	33	Phase-cut





Comparison LED vs. conventional lamps

#### LED 20 W ≈

1 x 57 W QA60 (57 W Psys) 1 x 18 W TC-D (26 W Psys)

#### Bollards | LUPALO TOWER - Luminaire head

Type of protection: IP 65 Protection class: I

Modular bollard luminaires consisting of luminaire head and tube. Luminaire head made of corrosion resistant die-cast aluminium, seawater resistant powder-coated, stainless steel screws. Luminaire head made of corrosion-resistant pressure die-cast aluminium, powder coated, with transparent cylinder (glass) and translucent anti-glare louvres. With mains voltage LED module. With membrane valve to avoid condensation. With C-track for junction box / fuse box behind the mast door. Connection box on base, max. 2 x 3 x 2.5 mm<sup>2</sup> for through wiring.



Modular design: please remember to order the luminaire tube separately for each luminaire head.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards - Luminai	re head					Price Category 12
982707.00X	D 187, H 326	830	810	20	41	Phase-cut
982707.00X.1	D 187, H 326	840	870	20	44	Phase-cut



#### Comparison LED vs. conventional lamps

#### LED 20 W ≈

1 x 77 W QA60 (77 W Psys) 1 x 18 W TC-D (26 W Psys)

#### Modules | LUPALO - Luminaire tube

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. With C-track for junction box / fuse box behind the mast door. The robust stainless steel mounting base ensures long-term stability. Elongated holes in the base for subsequent and simple alignment of the luminaire, especially with asymmetrically wide distribution along a pathway. Connection box on base, max. 2 x 3 x 2.5 mm<sup>2</sup> for through wiring.

Available colours (X): 31 = anthracite, 4 = silver

Dimensions number [mm]

Price Category 12 Module - Luminaire tube with base plate

D 180, H 957 612364.00X ° D 180, H 1150

\* Height matching the LUPALO charging unit (RZB Energy)



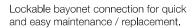




### **MEGA**

Everything at a glance

With their slender design, the attractive light columns of the Mega range make graceful and yet powerful light statements. Various installation depths guarantee optimum integration in the architecture. The different luminaire heads distinguish themselves with a high level of light comfort, as well as achieving maximum clearance when complying with the relevant lighting regulations.







Elongated holes in the base for subsequent and simple alignment of the luminaire.

Non-corrosive luminaire insert made of mould-cast dual compound thermoplastic with integral TP gasket.





A light transmission bar made of highly transparent, clear plastic (PMMA) with lasered optical structure diverts the light horizontally, ensuring optimum and even light distribution on the floor.

The use of state-of-the-art LED technology allows reduced energy consumption and a long LED service life.

Membrane valve for pressure equalisation to avoid condensation.



Luminaire tube made of corrosion-resistant aluminum profile, seawater-resistant powder-coated.

IP66

The high protection class (IP66) socket allows easy connection with the option of through wiring.

Stable stainless steel fixing plate, hidden in the luminaire tube.

Buried base made of aluminium, press nuts made of stainless steel.



### **MEGA**

Bollards

#### ARCHITECTURE

- **Applicable:** Bollard for public areas such as paths, squares, parks or car parking areas.
- Extensive: Wall luminaires and bollards.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.
- Robust: The use of low-corrosion aluminium alloys in combination with a two-layer, seawater-resistant coating and stainless steel fastening and connecting elements ensures durability.

#### LIGHTING DESIGN

- Efficient: The high quality LED optics provide balanced brightness while minimising energy consumption.
- Versatile: 9 luminaire heads, 2 versions.
- Expressive: Luminaire head in glass or plastic for different lighting effects and design options.
- Long service life: High type of protection: IP 65.

#### INSTALLATION

- **Straightforward:** Suitable for through-wiring.
- **Safe:** Membrane valve to prevent condensation.
- Connected: Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.









Further luminaires of this series, see: Outdoor lighting | Wall luminaires







### Comparison LED vs. conventional lamps

#### LED 10 W ≈

1 x 77 W QA60 (77 W Psys) 1 x 18 W TC-D (26 W Psys)

#### LED 18 W ≈

1 x 116 W QA60 (116 W Psys) 1 x 32 W TC-TEL (36 W Psys)

#### Bollards | MEGA TOWER F

Type of protection: **IP 65**Protection class: I
Impact protection: **IK**05

Luminaire tube made of corrosion-resistant aluminium profile, powder-coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Luminaire head made of corrosion-resistant pressure die-cast aluminium, powder-coated, with transparent cylinder (glass) and translucent anti-glare louvres. With membrane valve to avoid condensation. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring.

Luminaire tube versions  $\emptyset$  115 mm: DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

Available colours (X): 31 = anthracite, 4 = silver

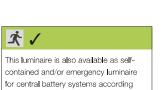
Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards - Luminaire						Price Category 12
Height H 500 mm, h						
611992.00X	D 115, H 500	830	880	10	88	on/off
611992.00X.1	D 115, H 500	840	920	10	92	on/off
Height H 750 mm, h						
612146.00X	D 115, H 750	830	880	10	88	on/off
612146.00X.76	D 115, H 750	830	880	10	88	DALI
612146.00X.730	D 115, H 750	830	880	10	88	smart+free
612146.00X.1	D 115, H 750	840	920	10	92	on/off
612146.00X.1.76	D 115, H 750	840	920	10	92	DALI
612146.00X.1.730	D 115, H 750	840	920	10	92	smart+free
Height H 1000 mm, h	168 mm					
611993.00X	D 115, H 1000	830	880	10	88	on/off ✓
611993.00X.76	D 115, H 1000	830	880	10	88	DALI
611993.00X.730	D 115, H 1000	830	880	10	88	smart+free
611993.00X.1	D 115, H 1000	840	920	10	92	on/off ✓
611993.00X.1.76	D 115, H 1000	840	920	10	92	DALI
611993.00X.1.730	D 115, H 1000	840	920	10	92	smart+free
Bollards - Luminaire	tube Ø 156 mm					Price Category 12
Height H 750 mm, h						
612342.00X	D 156, H 750	830	1550	18	86	on/off
612342.00X.76	D 156, H 750	830	1550	18	86	DALI
612342.00X.730	D 156, H 750	830	1550	18	86	smart+free
612342.00X.1	D 156, H 750	840	1600	18	89	on/off
612342.00X.1.76	D 156, H 750	840	1600	18	89	DALI
612342.00X.1.730	D 156, H 750	840	1600	18	89	smart+free
Height H 1200 mm, h	1 235 mm					
612376.00X	D 156, H 1200	830	1550	18	86	on/off
611998.00X.76	D 156, H 1200	830	1550	18	86	DALI
611998.00X.730	D 156, H 1200	830	1550	18	86	smart+free
612376.00X.1	D 156, H 1200	840	1600	18	89	on/off
611998.00X.1.76	D 156, H 1200	840	1600	18	89	DALI
611998.00X.1.730	D 156, H 1200	840	1600	18	89	smart+free



Aluminium burie	Price Category 12		
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
982155.000	D 153, H 396	Luminaire tube Ø 156 mm	
Junction box H	with strain relief		Price Category 12
982981.003	L 175, B 62, H 35	Max. $5 \times 4 \text{ mm}^2$ and cable diameter Ø 9 - 13.5 mm. $1 \times \ln / 2 \times \text{Out}$ .	

Round clip with stra	in relief		Price Category 12
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø $5 - 12 \text{ mm}$ .	



to EN 60598 2-22 - further information







page 11.



#### Bollards | MEGA TOWER R

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Luminaire tube made of corrosion-resistant aluminium profile, powder-coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Luminaire head made of corrosion-resistant pressure die-cast aluminium, powder-coated, with transparent cylinder (glass) and translucent anti-glare louvres. With membrane valve to avoid condensation. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring.

Luminaire tube versions  $\emptyset$  115 mm: DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards - Luminaire	tube Ø 115 mm					Price Category 12
Height H 550 mm, h	205 mm					
611994.00X	D 115, H 550	830	880	10	88	on/off
611994.00X.1	D 115, H 550	840	920	10	92	on/off
Height H 800 mm, h	205 mm					
612147.00X	D 115, H 800	830	880	10	88	on/off
612147.00X.76	D 115, H 800	830	880	10	88	DALI
612147.00X.730	D 115, H 800	830	880	10	88	smart+free
612147.00X.1	D 115, H 800	840	920	10	92	on/off
612147.00X.1.76	D 115, H 800	840	920	10	92	DALI
612147.00X.1.730	D 115, H 800	840	920	10	92	smart+free
Height H 1050 mm,	h 205 mm					
611995.00X	D 115, H 1050	830	880	10	88	on/off
611995.00X.76	D 115, H 1050	830	880	10	88	DALI
611995.00X.730	D 115, H 1050	830	880	10	88	smart+free
611995.00X.1	D 115, H 1050	840	920	10	92	on/off
611995.00X.1.76	D 115, H 1050	840	920	10	92	DALI
611995.00X.1.730	D 115, H 1050	840	920	10	92	smart+free

Bollards - Luminaire		Price Category 12					
Height H 750 mm, h	285 mm						
612343.00X	D 156, H 750	830	1550	18	86	on/off	
612343.00X.76	D 156, H 750	830	1550	18	86	DALI	
612343.00X.730	D 156, H 750	830	1550	18	86	smart+free	
612343.00X.1	D 156, H 750	840	1600	18	89	on/off	
612343.00X.1.76	D 156, H 750	840	1600	18	89	DALI	
612343.00X.1.730	D 156, H 750	840	1600	18	89	smart+free	
Height H 1250 mm,	h 285 mm						
612377.00X	D 156, H 1250	830	1550	18	86	on/off	
612114.00X.76	D 156, H 1250	830	1550	18	86	DALI	
612114.00X.730	D 156, H 1250	830	1550	18	86	smart+free	
612377.00X.1	D 156, H 1250	840	1600	18	89	on/off	
612114.00X.1.76	D 156, H 1250	840	1600	18	89	DALI	
612114.00X.1.730	D 156, H 1250	840	1600	18	89	smart+free	

Aluminium burie	d base with anti-sink prot	Price Category 12	
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
982155.000	D 153, H 396	Luminaire tube Ø 156 mm	
Junction box H	with strain relief	Price Category 12	

Max. 5 x 4 mm<sup>2</sup> and cable diameter Ø 9 - 13.5 mm. 1 x ln / 2 x Out.

Round clip with	strain relief		Price Category 12
982974 003	D 23 1 89	May 5 v 1 5 mm <sup>2</sup> and cable diameter Ø 5 - 12 mm	



L 175, B 62, H 35

982981.003









Comparison LED vs. conventional lamps

LED 10 W ≈

1 x 77 W QA60 (77 W Psys) 1 x 18 W TC-D (26 W Psys)

LED 18 W ≈

1 x 116 W QA60 (116 W Psys) 1 x 32 W TC-TEL (36 W Psys)







# Comparison LED vs. conventional lamps

#### LED 10 W ≈

1 x 77 W QA60 (77 W Psys) 1 x 18 W TC-D (26 W Psys)

#### Bollards | MEGA CONE

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Luminaire tube made of corrosion-resistant aluminium profile, powder-coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Luminaire head made of corrosion-resistant pressure die-cast aluminium, powder-coated, with clear glass cylinder and conical reflector. With membrane valve to avoid condensation. Connection box on base, max. 2 x 3 x 2.5 mm² for through wiring. Connection box on base, max. 2 x 3 x 2.5 mm² for through wiring.

DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Control	术
Bollards - Luminaire	tube Ø 115 mm						Price Category 12
Height H 505 mm, h	118 mm						
612161.00X	D 115, H 505	830	770	10	77	on/off	
612161.00X.1	D 115, H 505	840	800	10	80	on/off	
Height H 710 mm, h	118 mm						
612162.00X	D 115, H 710	830	770	10	77	on/off	
612162.00X.76	D 115, H 710	830	770	10	77	DALI	
612162.00X.730	D 115, H 710	830	770	10	77	smart+free	<b>:</b>
612162.00X.1	D 115, H 710	840	800	10	80	on/off	
612162.00X.1.76	D 115, H 710	840	800	10	80	DALI	
612162.00X.1.730	D 115, H 710	840	800	10	80	smart+free	
Height H 1035 mm, h	118 mm						
612163.00X	D 115, H 1035	830	770	10	77	on/off	✓
612163.00X.76	D 115, H 1035	830	770	10	77	DAL	
612163.00X.730	D 115, H 1035	830	770	10	77	smart+free	•
612163.00X.1	D 115, H 1035	840	800	10	80	on/off	✓
612163.00X.1.76	D 115, H 1035	840	800	10	80	DALI	
612163.00X.1.730	D 115, H 1035	840	800	10	80	smart+free	!



Aluminium burie	d base with anti-sink prot	Price Category 12	
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	

Junction box H with strain relief			
982981.003	L 175, B 62, H 35	Max. $5 \times 4 \text{ mm}^2$ and cable diameter Ø 9 - 13.5 mm. $1 \times \ln / 2 \times \text{Out}$ .	

Round clip with	strain relief		Price Category 12
982974 003	D 23 T 89	May 5 v 1.5 mm <sup>2</sup> and cable diameter Ø.5 - 12 mm	



This luminaire is also available as self-contained and/or emergency luminaire for central battery systems according to EN 60598 2-22 – further information page 11.









#### Bollards | MEGA LATERNE R

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Luminaire head made of die cast aluminium, powder coated, with opal cylinder (glass). With membrane valve to avoid condensation. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring,

DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

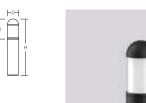
Available colours (X): 31 = anthracite, 4 = silver

 $\label{thm:control} Versions \ with \ Casambi \ smart+free \ Bluetooth^{@} \ control \ for \ wireless \ network \ and \ operation \ using \ Android \ / \ iOS \ devices, \ free \ app \ available \ for \ download.$ 

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards - Luminaire	tube Ø 115 mm					Price Category 12
Height H 550 mm, h	205 mm					
611996.00X	D 115, H 550	830	640	10	64	on/off
611996.00X.1	D 115, H 550	840	660	10	66	on/off
612115.00X	D 115, H 550	1 x QA6	0 (k <b>l</b> ar) max. 57 W			on/off
Height H 800 mm, h	205 mm					
612149.00X	D 115, H 800	830	640	10	64	on/off
612149.00X.76	D 115, H 800	830	640	10	64	DALI
612149.00X.730	D 115, H 800	830	640	10	64	smart+free
612149.00X.1	D 115, H 800	840	660	10	66	on/off
612149.00X.1.76	D 115, H 800	840	660	10	66	DALI
612149.00X.1.730	D 115, H 800	840	660	10	66	smart+free
612148.00X	D 115, H 800	1 x QA6	0 (k <b>l</b> ar) max. 57 W			on/off
Height H 1050 mm,	h 205 mm					
612117.00X	D 115, H 1050	830	640	10	64	on/off
612117.00X.76	D 115, H 1050	830	640	10	64	DALI
612117.00X.730	D 115, H 1050	830	640	10	64	smart+free
612117.00X.1	D 115, H 1050	840	660	10	66	on/off
612117.00X.1.76	D 115, H 1050	840	660	10	66	DALI
612117.00X.1.730	D 115, H 1050	840	660	10	66	smart+free
612116.00X	D 115, H 1050	1 x QA6	0 (klar) max. 57 W			on/off

Aluminium burie	Price Category 12		
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
Junction box H	with strain relief		Price Category 12
982981.003	L 175, B 62, H 35	Max. 5 x 4 mm <sup>2</sup> and cable diameter Ø 9 - 13.5 mm. 1 x ln / 2 x Out.	

Round clip with s	strain relief		Price Category 12
982974.003	D 23, L 89,	Max. 5 x 1.5 mm <sup>2</sup> and cable diameter Ø 5 - 12 mm.	



Comparison LED vs. conventional lamps LED 10 W ≈ 1 x 57 W QA60 (57 W Psys) 1 x 18 W TC-D (26 W Psys)













Comparison LED vs. conventional lamps

LED 10 W ≈

1 x 57 W QA60 (57 W Psys) 1 x 18 W TC-D (26 W Psys)

#### Bollards | MEGA LATERNE F

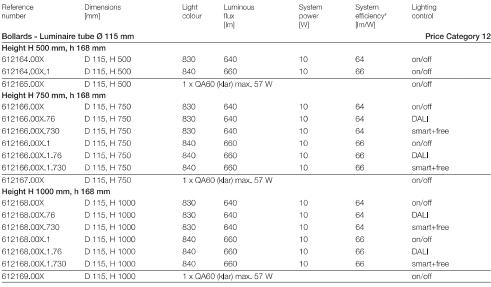
Type of protection: **IP 65**Protection class: I
Impact protection: **IK**05

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Luminaire head made of die cast aluminium, powder coated, with opal cylinder (glass). With membrane valve to avoid condensation. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring.

DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.





982974.003

D 23, L 89,

982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
Junction box H v	vith strain relief		Price Category 1:

Max.  $5 \times 1.5 \text{ mm}^2$  and cable diameter Ø 5 - 12 mm.









#### Bollards | MEGA GÜRTELLINSE

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K02

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Mouth-blown luminaire glass, clear, drum lens shape, With membrane valve as a standard to avoid condensed water. Driver integrated. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring.

Luminaire tube versions  $\emptyset$  115 mm: DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards - Luminaire	tube Ø 115 mm					Price Category 12
Height H 500 mm, h	165 mm	·				
611882.00X	D 140, H 500	830	490	10	49	on/off
611882.00X.1	D 140, H 500	840	510	10	51	on/off
611885.00X	D 140, H 500	1 x QA60	0 (k <b>l</b> ar) max. 57 W			on/off
Height H 750 mm, h	165 mm					
611883.00X	D 140, H 750	830	490	10	49	on/off
611883.00X.76	D 140, H 750	830	490	10	49	DAL
611883.00X.730	D 140, H 750	830	490	10	49	smart+free
611883.00X.1	D 140, H 750	840	510	10	51	on/off
611883.00X.1.76	D 140, H 750	840	510	10	51	DALI
611883.00X.1.730	D 140, H 750	840	510	10	51	smart+free
611886.00X	D 140, H 750	1 x QA60	0 (klar) max. 57 W			on/off
Height H 1000 mm, I	165 mm					
611884.00X	D 140, H 1000	830	490	10	49	on/off
611884.00X.76	D 140, H 1000	830	490	10	49	DALI
611884.00X.730	D 140, H 1000	830	490	10	49	smart+free
611884.00X.1	D 140, H 1000	840	510	10	51	on/off
611884.00X.1.76	D 140, H 1000	840	510	10	51	DALI
611884.00X.1.730	D 140, H 1000	840	510	10	51	smart+free
611887.00X	D 140, H 1000	1 x QA60	0 (klar) max. 57 W			on/off

Bollards - Luminaire tube Ø 156 mm						Price Category 12
Height H 750 mm, h	196 mm					
612344.00X	D 179, H 750	830	920	18	51	on/off
612344.00X.76	D 179, H 750	830	920	18	51	DALI
612344.00X.730	D 179, H 750	830	920	18	51	smart+free
612344.00X.1	D 179, H 750	840	940	18	52	on/off
612344.00X.1.76	D 179, H 750	840	940	18	52	DALI
612344.00X.1.730	D 179, H 750	840	940	18	52	smart+free
Height H 1200 mm,	h 196 mm					
612374.00X	D 179, H 1200	830	920	18	51	on/off
611969.00X.76	D 179, H 1200	830	920	18	51	DALI
611969.00X.730	D 179, H 1200	830	920	18	51	smart+free
612374.00X.1	D 179, H 1200	840	940	18	52	on/off
611969.00X.1.76	D 179, H 1200	840	940	18	52	DALI
611969.00X.1.730	D 179, H 1200	840	940	18	52	smart+free
611967.00X	D 179, H 1200	1 x QA6	60 (k <b>l</b> ar) max. 77 W	/		on/off

Aluminium buried base with anti-sink protection and fixing set			
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
982155.000	D 153, H 396	Luminaire tube Ø 156 mm	
Junction box H v	with strain relief		Price Category 12
982981.003	L 175, B 62, H 35	Max. $5 \times 4 \text{ mm}^2$ and cable diameter Ø 9 - 13.5 mm. $1 \times \ln / 2 \times \text{Out}$ .	
Round clip with	strain relief		Price Category 12
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø $5 - 12 \text{ mm}$ .	











Comparison LED vs. conventional lamps

LED 10 W ≈

1 x 57 W QA60 (57 W Psys) 1 x 18 W TC-D (26 W Psys)

LED 18 W ≈

1 x 46 W QA60 (46 W Psys) 1 x 13 W TC-D (19 W Psys)









LED vs. conventional lamps

1 x 77 W QA60 (77 W Psys) 1 x 26 W TC-D (34 W Psys)

1 x 100 W A60 (100 W Psys) 1 x 26 W TC-D (34 W Psys)

Comparison

LED 10 W ≈

LED 18 W ≈

#### Bollards | MEGA TUBE - Glass

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Opal glass: mouth-blown, satin finish. With membrane valve to avoid condensation. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring.

Luminaire tube versions  $\varnothing$  115 mm: DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting Control	<b>注</b>
Bollards - Luminaire	tube Ø 115 mm		. ,	. ,	. ,		Price Category 12
Height H 600 mm, h	210 mm						
611872.00X	D 115, H 600	830	860	10	86	on/off	
611872.00X.1	D 115, H 600	840	900	10	90	on/off	
611875.00X	D 115, H 600	1 x QA6	0 (k <b>l</b> ar) max. 57	W		on/off	
Height H 800 mm, h	210 mm						
612151.00X	D 115, H 800	830	860	10	86	on/off	
612151.00X.76	D 115, H 800	830	860	10	86	DALI	
612151.00X.730	D 115, H 800	830	860	10	86	smart+free	<b>;</b>
612151.00X.1	D 115, H 800	840	900	10	90	on/off	
612151.00X.1.76	D 115, H 800	840	900	10	90	DALI	
612151.00X.1.730	D 115, H 800	840	900	10	90	smart+free	•
612150.00X	D 115, H 800	1 x QA6	0 (k <b>l</b> ar) max. 57	W		on/off	
Height H 1000 mm, h	n 210 mm						
612347.00X	D 115, H 1000	830	860	10	86	on/off	✓
612347.00X.76	D 115, H 1000	830	860	10	86	DALI	
612347.00X.730	D 115, H 1000	830	860	10	86	smart+free	•
612347.00X.1	D 115, H 1000	840	900	10	90	on/off	✓
612347.00X.1.76	D 115, H 1000	840	900	10	90	DAL	
612347.00X.1.730	D 115, H 1000	840	900	10	90	smart+free	1
611876.00X	D 115, H 1000	1 x QA6	0 (k <b>l</b> ar) max. 57	W	,	on/off	
Bollards - Luminaire	tube Ø 156 mm						Price Category 12
Height H 1400 mm, h							1 noo category 12
612368.00X	D 156, H 1400	830	1750	18	97	on/off	
611916.00X.76	D 156, H 1400	830	1750	18	97	DAL	
611916.00X.730	D 156, H 1400	830	1750	18	97	smart+free	<b>,</b>
612368.00X.1	D 156, H 1400	840	1800	18	100	on/off	
611916.00X.1.76	D 156, H 1400	840	1800	18	100	DAL	
611916.00X.1.730	D 156, H 1400	840	1800	18	100	smart+free	,
Height H 1800 mm, h	1 440 mm						
612369.00X	D 156, H 1800	830	1750	18	97	on/off	
611917.00X.76	D 156, H 1800	830	1750	18	97	DAL	
611917.00X.730	D 156, H 1800	830	1750	18	97	smart+free	•
612369.00X.1	D 156, H 1800	840	1800	18	100	on/off	
611917.00X.1.76	D 156, H 1800	840	1800	18	100	DALI	

Glass and plastic diffusers are not interchangeable.

611917.00X.1.730

612370.00X

611918.00X.76

612370.00X.1

611918.00X.730

611918.00X.1.76

611918.00X.1.730

Height H 2400 mm, h 440 mm

D 156, H 1800

D 156, H 2400



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7	<b>√</b>

This luminaire is also available as self-contained and/or emergency luminaire for central battery systems according to EN 60598 2-22 – further information page 11.

Aluminium buried base with anti-sink protection and fixing set			Price Category 12
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
982155.000	D 153, H 396	Luminaire tube Ø 156 mm	
982156.000	D 153, H 600	Luminaire tube Ø 156/180 mm	

1800

1750

1750

1750

1800

1800

1800

840

830

830

830

840

840

840

18

18

18

18

18

18

18

100

97

97

97

100

100

100

smart+free

smart+free

smart+free

on/off

DAL

on/off

DALI

Junction box H w	vith strain relief		Price Category 12
982981.003	L 175, B 62, H 35	Max. $5 \times 4 \text{ mm}^2$ and cable diameter Ø 9 - 13.5 mm. $1 \times \ln / 2 \times \text{Out}$ .	

Round clip with s	train relief		Price Category 12
982974.003	D 23, L 89,	Max. 5 x 1.5 mm <sup>2</sup> and cable diameter Ø 5 - 12 mm.	



#### Bollards | MEGA TUBE - Plastic

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K05

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Diffuser: plastic (polycarbonate), opal, satin finish With membrane valve to avoid condensation. Connection box on base, max.  $2\times3\times2.5$  mm² /  $2\times5\times2.5$  mm² for through wiring.

Luminaire tube versions  $\emptyset$  115 mm: DALI / Casambi smart+free with factory-fitted connecting cable, please order connecting accessories separately.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting Control	<b>注</b>
Bollards - Luminaire	tube Ø 115 mm						Price Category 12
Height H 600 mm, h	210 mm						
611913.00X	D 115, H 600	830	1000	10	100	on/off	
611913.00X.1	D 115, H 600	840	1050	10	105	on/off	
Height H 1000 mm,	h 210 mm						
612348.00X	D 115, H 1000	830	1000	10	100	on/off	✓
612348.00X.76	D 115, H 1000	830	1000	10	100	DAL	
612348.00X.730	D 115, H 1000	830	1000	10	100	smart+fre	е
612348.00X.1	D 115, H 1000	840	1050	10	105	on/off	✓
612348.00X.1.76	D 115, H 1000	840	1050	10	105	DALI	
612348.00X.1.730	D 115, H 1000	840	1050	10	105	smart+fre	e

Bollards - Luminaire						Price Category 12
Height H 1400 mm, 612371.00X	D 156, H 1400	830	2100	18	117	on/off
611919.00X.76	D 156, H 1400	830	2100	18	117	DALI
611919.00X.730	D 156, H 1400	830	2100	18	117	smart+free
612371.00X.1	D 156, H 1400	840	2150	18	119	on/off
611919.00X.1.76	D 156, H 1400	840	2150	18	119	DALI
611919.00X.1.730	D 156, H 1400	840	2150	18	119	smart+free
Height H 1800 mm,	h 440 mm					
612372.00X	D 156, H 1800	830	2100	18	117	on/off
611920.00X.76	D 156, H 1800	830	2100	18	117	DALI
611920.00X.730	D 156, H 1800	830	2100	18	117	smart+free
612372.00X.1	D 156, H 1800	840	2150	18	119	on/off
611920.00X.1.76	D 156, H 1800	840	2150	18	119	DALI
611920.00X.1.730	D 156, H 1800	840	2150	18	119	smart+free
Height H 2400 mm,	h 440 mm					
612373.00X	D 156, H 2400	830	2100	18	117	on/off
611921.00X.76	D 156, H 2400	830	2100	18	117	DALI
611921.00X.730	D 156, H 2400	830	2100	18	117	smart+free
612373.00X.1	D 156, H 2400	840	2150	18	119	on/off
611921.00X.1.76	D 156, H 2400	840	2150	18	119	DALI
611921.00X.1.730	D 156, H 2400	840	2150	18	119	smart+free

Glass and plastic diffusers are not interchangeable.

Aluminium buried b	ase with anti-sink prote	Price Category 12	
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
982155.000	D 153, H 396	Luminaire tube Ø 156 mm	
982156.000	D 153, H 600	Luminaire tube Ø 156/180 mm	

Junction box H w	vith strain relief		Price Category 12
982981.003	L 175, B 62, H 35	Max. 5 x 4 mm <sup>2</sup> and cable diameter Ø 9 - 13.5 mm. 1 x ln / 2 x Out.	

Round clip with st	train relief		Price Category 12
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø $5 - 12 \text{ mm}$ .	









#### Comparison LED vs. conventional lamps LED 10 W ≈ 1 x 77 W QA60 (77 W Psys) 1 x 26 W TC-D (34 W Psys)

1 x 77 W QA60 (77 W Psys) 1 x 26 W TC-D (34 W Psys) **LED 18 W ≈** 1 x 150 W QT12 (150 W Psys) 1 x 42 W TC-TEL (47 W Psys)





This luminaire is also available as self-contained and/or emergency luminaire for central battery systems according to EN 60598 2-22 – further information page 11.





#### Comparison LED vs. conventional lamps LED 18 W ≈ 1 x 77 W QA60 (77 W Psys) 1 x 26 W TC-D (34 W Psys)

#### Bollards | MEGA GLASPOLLER

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K03

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Opal glass: mouth-blown, satin finish, powder coated metal cap. With membrane valve as a standard to avoid condensed water. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards - Luminaire	tube Ø 156 mm					Price Category 12
Height H 750 mm, h	232 mm					
612345.00X	D 156, H 750	830	830	18	46	on/off
612345.00X.76	D 156, H 750	830	830	18	46	DALI
612345.00X.730	D 156, H 750	830	830	18	46	smart+free
612345.00X.1	D 156, H 750	840	850	18	47	on/off
612345.00X.1.76	D 156, H 750	840	850	18	47	DALI
612345.00X.1.730	D 156, H 750	840	850	18	47	smart+free
Height H 1200 mm,	h 232 mm					
611973.00X.76	D 169, H 1200	830	830	18	46	DALI
611973.00X.730	D 169, H 1200	830	830	18	46	smart+free
611973.00X.1.76	D 169, H 1200	840	850	18	47	DALI
611973.00X.1.730	D 169, H 1200	840	850	18	47	smart+free
611971.00X	D 169, H 1200	1 x QA6	0 (klar) max. 77 W			on/off



Aluminium burie	d base with anti-sink prot	ection and fixing set	Price Category 12
982155.000	D 153, H 396	Luminaire tube Ø 156 mm	









#### Bollards | MEGA SQUARE

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K02

Luminaire tube made of corrosion-resistant aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Opal glass: mouth-blown, satin finish. With membrane valve as a standard to avoid condensed water. Connection box on base, max.  $2 \times 3 \times 2.5 \text{ mm}^2 / 2 \times 5 \times 2.5 \text{ mm}^2$  for through wiring.

Available colours (X): 31 = anthracite, 4 = silver

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards - Luminaire	tube 120 x 120 mm					Price Category 12
Height H 600 mm, h	210 mm					
611905.00X	L 120, B 120, H 600	830	980	10	98	on/off
611905.00X.1	L 120, B 120, H 600	840	1000	10	100	on/off
611904.00X	L 120, B 120, H 600	1 x QA60	0 (k <b>l</b> ar) max. 57 W			on/off
Height H 800 mm, h	210 mm					
612153.00X	L 120, B 120, H 800	830	980	10	98	on/off
612153.00X.76	L 120, B 120, H 800	830	980	10	98	DALI
612153.00X.730	L 120, B 120, H 800	830	980	10	98	smart+free
612153.00X.1.76	L 120, B 120, H 800	840	1000	10	100	DAL
612153.00X.1.730	L 120, B 120, H 800	840	1000	10	100	smart+free
612153.00X.1	L 120, B 120, H 800	840	1000	10	100	on/off
612152.00X	L 120, B 120, H 800	1 x QA60	0 (k <b>l</b> ar) max. 57 W			on/off
Height H 1000 mm,	h 210 mm					
612379.00X	L 120, B 120, H 1000	830	960	10	96	on/off
611907.00X.76	L 120, B 120, H 1000	830	960	10	96	DALI
611907.00X.730	L 120, B 120, H 1000	830	960	10	96	smart+free
612379.00X.1	L 120, B 120, H 1000	840	1000	10	100	on/off
611907.00X.1.76	L 120, B 120, H 1000	840	1000	10	100	DALI
611907.00X.1.730	L 120, B 120, H 1000	840	1000	10	100	smart+free
611909.00X	L 120, B 120, H 1000	1 x QA60	0 (klar) max. 57 W			on/off

	tube 156 x 156 mm					Price Category 12
Height H 1400 mm,	h 330 mm					
612365.00X	L 156, B 156, H 1400	830	1650	18	92	on/off
611910.00X.76	L 156, B 156, H 1400	830	1650	18	92	DALI
611910.00X.730	L 156, B 156, H 1400	830	1650	18	92	smart+free
612365.00X.1	L 156, B 156, H 1400	840	1700	18	94	on/off
611910.00X.1.76	L 156, B 156, H 1400	840	1700	18	94	DALI
611910.00X.1.730	L 156, B 156, H 1400	840	1700	18	94	smart+free
Height H 1800 mm,	h 330 mm					
612366.00X	L 156, B 156, H 1800	830	1650	18	92	on/off
611911.00X.76	L 156, B 156, H 1800	830	1650	18	92	DALI
611911.00X.730	L 156, B 156, H 1800	830	1650	18	92	smart+free
612366.00X.1	L 156, B 156, H 1800	840	1700	18	94	on/off
611911.00X.1.76	L 156, B 156, H 1800	840	1700	18	94	DALI
611911.00X.1.730	L 156, B 156, H 1800	840	1700	18	94	smart+free
Height H 2400 mm,	h 330 mm					
612367.00X	L 156, B 156, H 2400	830	1650	18	92	on/off
611912.00X.76	L 156, B 156, H 2400	830	1650	18	92	DALI
611912.00X.730	L 156, B 156, H 2400	830	1650	18	92	smart+free
612367.00X.1	L 156, B 156, H 2400	840	1700	18	94	on/off
611912.00X.1.76	L 156, B 156, H 2400	840	1700	18	94	DALI
611912.00X.1.730	L 156, B 156, H 2400	840	1700	18	94	smart+free

Aluminium buried b	ase with anti-sink protecti	Price Category 12	
982103.000	D 115, H 401	Luminaire tube Ø 115 mm	
982103.010	L 120, B 120, H 401	Luminaire tube 120 x 120 mm	
982155.010	L 156, B 156, H 401	Luminaire tube 156 x 156 mm	
982157.000	L 156, B 156, H 596	Luminaire tube 156 x 156 mm	

Junction box H	with strain relief		Price Category 12
982981.003	L 175, B 62, H 35	Max. $5 \times 4 \text{ mm}^2$ and cable diameter Ø 9 - 13.5 mm. $1 \times \ln / 2 \times \text{Out}$ .	

Round clip with s	train relief		Price Category 12
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø $5 - 12 \text{ mm}$ .	





# Comparison LED vs. conventional lamps

#### LED 10 W ≈

1 x 77 W QA60 (77 W Psys) 1 x 26 W TC-D (34 W Psys)

#### LED 18 W ≈

1 x 150 W QT12 (150 W Psys) 1 x 42 W TC-TEL (47 W Psys)











TERRA EDELSTAHL 130

TERRA EDELSTAHL 190 710-713



TERRA EDELSTAHL 245 714-715



### TERRA EDELSTAHL 130

In-ground luminaires

#### ARCHITECTURE

- Functional: In-ground luminaire for pedestrian areas, maximum load 2000 kg.
- Accessories: Slip-resistant glass for public areas that can be walked on.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

#### LIGHTING DESIGN

- Variable: Three different light distribution options for maximum flexibility in use.
- **Optimum:** High object illuminance due to precise optics despite low power.

#### INSTALLATION

- Long service life: Durable corrosion resistance even in aggressive soil thanks to housing of thermoset material, cover ring made of marine grade stainless steel.
- Advantageous: Prevents condensation thanks to hermetically sealed interior and vapour seal.



#### In-ground luminaires | TERRA EDELSTAHL 130

Type of protection: **IP 68**Protection class: II
Impact protection: IK08
Maximum Static Load: 2000 kg

Housing made of epoxy resin thermoset, stainless steel, aluminium. Round marine grade stainless steel cover, mill finish. Flush mounted toughened glass with secondary sealing glass. High performance LED refractor optics with different beam angles. Integral vapour seal against condensed water. The interior of the housing is sealed in accordance with IP 68 even during installation. With H07RN8-F connecting cable, L 500 mm.

#### Use of in-ground support is necessary, please order separately

Available colour: 0 = stainless steel

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control
In-ground lumina	ires						Price Category 12
Cut out DA 125 m	nm, HE 390 mm						
Symmetrical nar	row-beam light distribution						
641338.000.2	D 130, H 2, HEL 200	827	300	4	75	13°	on/off
641338.000	D 130, H 2, HEL 200	830	320	4	80	13°	on/off
641338.000.1	D 130, H 2, HEL 200	840	340	4	85	13°	on/off
Symmetrical med	lium beam light distribution						
641339.000.2	D 130, H 2, HEL 200	827	300	4	75	19°	on/off
641339.000	D 130, H 2, HEL 200	830	320	4	80	19°	on/off
641339.000.1	D 130, H 2, HEL 200	840	340	4	85	19°	on/off
Symmetrical wide	e beam light distribution						
641340.000.2	D 130, H 2, HEL 200	827	300	4	75	37°	on/off
641340.000	D 130, H 2, HEL 200	830	320	4	80	37°	on/off
641340.000.1	D 130, H 2, HEL 200	840	340	4	85	37°	on/off

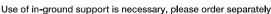


Comparison LED vs. conventional lamps LED 4 W ≈ 1 x 30 W QA60 (30 W Psys)

#### In-ground luminaires | TERRA EDELSTAHL 130

Type of protection: **IP 68**Protection class: II
Impact protection: IK08
Maximum Static Load: 2000 kg

Housing made of epoxy resin thermoset, stainless steel, aluminium, Square marine grade stainless steel cover, mill finish. Flush mounted toughened glass with secondary sealing glass. High performance LED refractor optics with different beam angles. Integral vapour seal against condensed water. The interior of the housing is sealed in accordance with IP 68 even during installation. With H07RN8-F connecting cable, L 500 mm.



Available colour: 0 = stainless steel

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> a [°]	Lighting control
In-ground luminair	es						Price Category 12
Cut out DA 125 mr	n, HE 390 mm						
Symmetrical narro	ow-beam light distribution						
641341.000.2	L 130, B 130, H 2, HEL 200	827	300	4	75	13°	on/off
641341.000	L 130, B 130, H 2, HEL 200	830	320	4	80	13°	on/off
641341.000.1	L 130, B 130, H 2, HEL 200	840	340	4	85	13°	on/off
Symmetrical media	um beam light distribution						
641342.000.2	L 130, B 130, H 2, HEL 200	827	300	4	75	19°	on/off
641342.000	L 130, B 130, H 2, HEL 200	830	320	4	80	19°	on/off
641342.000.1	L 130, B 130, H 2, HEL 200	840	340	4	85	19°	on/off
Symmetrical wide	beam light distribution						
641343.000.2	L 130, B 130, H 2, HEL 200	827	300	4	75	37°	on/off
641343.000	L 130, B 130, H 2, HEL 200	830	320	4	80	37°	on/off
641343.000.1	L 130, B 130, H 2, HEL 200	840	340	4	85	37°	on/off



Comparison LED vs. conventional lamps LED 4 W ≈ 1 x 30 W QA60 (30 W Psys)

In-ground support			Price Category 12
982194 003	D 125 H 540	Cover frame: plastic. Can be cut on site	

Glass, non-slip R1	2		Price Category 13
982408.030	D 78, H 10	Glass, non-slip with seal	

IP 68 plug connector			Price Category 11
982398.003	L 81, B 35, H 35	Connector, 5 pole, with plug and socket	

H-distributor IP 68			Price Category 11
982399.003	L 170, B 71, H 35	H-distributor IP 68	









### TERRA EDELSTAHL 190

Everything at a glance

When you think what effort, usually unsuccessful, is put into the search for the "perfect" recessed ground luminaire, one does in fact tend to describe the TERRA EDELSTAHL family as "out of this world". Yet its members are by no means extraterrestrials - they are simply heavenly solutions for earthly problems like condensation, corrosion, wiring etc.

#### ⊕ Long service life

Durable corrosion resistance even in aggressive soil thanks to housing made of thermoset material, cover ring made of marine grade stainless steel and flush mounted toughened glass. The use of state-of-the-art LED technology allows a long luminaire service life and reduced energy consumption.

#### ⊕ Impermeability

The multi-level housing concept reliably protects the light source and control gear from all weather influences. The sealed cable entry (VapourSeal) and the luminaire interior pressurised (filled with dried air) prevent condensation. Even during connection and adjustment, the luminaire interior remains completely airtight.

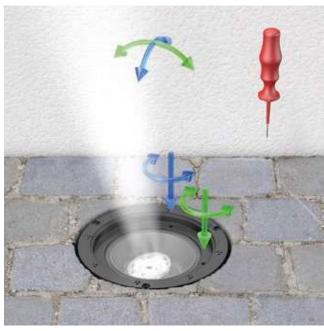
#### (f) Flexibility

High-quality LED optics provide balanced brightness. 3 different LED beam angles ensure planning flexibility. The LED can be continuously adjusted by a max. of 15 degrees in all directions in its installed state. Hence the light cone can be precisely directed and provides perfect illumination.

#### (+) Connection options

Flexible power cord H07-RN8F compatible with IP 68 quick connectors and cast resin boxes for electrical connection outside luminaire housing.





Infinite adjustment of the LED unit by a max, of 15° in all directions in its installed state,





# TERRA EDELSTAHL 190

In-ground luminaires

#### ARCHITECTURE

- Functional: In-ground luminaire for pedestrian areas, maximum load 2000 kg.
- Accessories: Slip-resistant glass for public areas that can be walked on.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

#### LIGHTING DESIGN

- Variable: Three different light distribution options for maximum flexibility in use.
- **Optimum:** High object illuminance due to precise optics despite low power.
- **Flexible:** Beam direction can be adjusted from 0 to 15 degrees in all directions.

#### INSTALLATION

- Long service life: Durable corrosion resistance even in aggressive soil thanks to housing of thermoset material, cover ring made of marine grade stainless steel.
- Advantageous: Prevents condensation thanks to hermetically sealed interior and vapour seal.
- Easy installation: Flexible power cord H07-RN8F compatible with IP 68 quick connectors and cast resin boxes for electrical connection outside luminaire housing.
- Straightforward: Beam adjusting is performed from outside while fitting is already mounted in place and sealed.



#### In-ground luminaires | TERRA EDELSTAHL 190

Type of protection: **IP 68**Protection class: II
Impact protection: IK08
Maximum Static Load: 2000 kg

Housing made of epoxy resin thermoset, stainless steel, aluminium. Round marine grade stainless steel cover, mill finish. Flush mounted toughened glass with secondary sealing glass. High performance LED refractor optics with different beam angles. Aiming can be adjusted by up to 15° from the vertical from the outside while fitting is already mounted in place and sealed. Integral vapour seal against condensed water. The interior of the housing is sealed in accordance with IP 68 even during installation. With H07RN8-F connecting cable, L 500 mm.

#### Use of in-ground support is necessary, please order separately

Available colour: 0 = stainless steel

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control
In-ground lumina	ires						Price Category 12
Cut out DA 175 m	m, HE 200 mm						
Symmetrical nan	row-beam light distribution						
641332.000.2	D 190, H 2, HEL 160	827	800	12	67	12°	on/off
641332.000	D 190, H 2, HEL 160	830	850	12	71	12°	on/off
641332.000.1	D 190, H 2, HEL 160	840	900	12	75	13°	on/off
Symmetrical med	lium beam light distribution						
641333.000.2	D 190, H 2, HEL 160	827	800	12	67	19°	on/off
641333.000	D 190, H 2, HEL 160	830	850	12	71	19°	on/off
641333.000.1	D 190, H 2, HEL 160	840	900	12	75	20°	on/off
Symmetrical wide	e beam light distribution						
641334.000.2	D 190, H 2, HEL 160	827	800	12	67	37°	on/off
641334.000	D 190, H 2, HEL 160	830	850	12	71	37°	on/off
641334.000.1	D 190, H 2, HEL 160	840	900	12	75	38°	on/off



Comparison LED vs. conventional lamps LED 12 W ≈ 1 x 50 W QT12 (54 W Psys) 1 x 57 W QA60 (57 W Psys)

#### In-ground luminaires | TERRA EDELSTAHL 190

Type of protection: **IP 68**Protection class: II
Impact protection: IK08
Maximum Static Load: 2000 kg

Housing made of epoxy resin thermoset, stainless steel, aluminium. Square marine grade stainless steel cover, mill finish. Flush mounted toughened glass with secondary sealing glass. High performance LED refractor optics with different beam angles. Aiming can be adjusted by up to 15° from the vertical from the outside while fitting is already mounted in place and sealed. Integral vapour seal against condensed water. The interior of the housing is sealed in accordance with IP 68 even during installation. With H07RN8-F connecting cable, L 500 mm.

#### Use of in-ground support is necessary, please order separately

Available colour: 0 = stainless steel

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b> 0	Lighting control
In-ground luminaire	es						Price Category 12
Cut out DA 175 mn	n, HE 200 mm						
Symmetrical narro	w-beam light distribution						
641335.000.2	L 190, B 190, H 2, HEL 160	827	800	12	67	12°	on/off
641335.000	L 190, B 190, H 2, HEL 160	830	850	12	71	12°	on/off
641335.000.1	L 190, B 190, H 2, HEL 160	840	900	12	75	13°	on/off
Symmetrical media	um beam light distribution						
641336.000.2	L 190, B 190, H 2, HEL 160	827	800	12	67	19°	on/off
641336.000	L 190, B 190, H 2, HEL 160	830	850	12	71	19°	on/off
641336.000.1	L 190, B 190, H 2, HEL 160	840	900	12	75	20°	on/off
Symmetrical wide	beam light distribution						
641337.000.2	L 190, B 190, H 2, HEL 160	827	800	12	67	37°	on/off
641337.000	L 190, B 190, H 2, HEL 160	830	850	12	71	37°	on/off
641337.000.1	L 190, B 190, H 2, HEL 160	840	900	12	75	38°	on/off



Comparison LED vs. conventional lamps
LED 12 W ≈
1 x 50 W QT12 (54 W Psys)
1 x 57 W QA60 (57 W Psys)

In-ground suppo	rt		Price Category 12
982089.003	D 172, H 500	Cover frame: plastic. Can be cut on site.	

Glass, non-slip R12			Price Category 13
982088.030	D 132, H 12	Glass, non-slip with seal	

IP 68 plug conne	ector		Price Category 11
982398.003	L 81, B 35, H 35	Connector, 5 pole, with plug and socket	

H-distributor IP 68			Price Category 11
982399.003	L 170, B 71, H 35	H-distributor IP 68	





### TERRA EDELSTAHL 245

In-ground luminaires

#### ARCHITECTURE

- Functional: In-ground luminaire for pedestrian areas, maximum load 2000 kg.
- Long service life: Housing made of corrosion-resistant die-cast aluminium, powder-coated.
- **Optimum:** Selection of circular or square shape marine grade stainless steel cover with flush mounted toughened glass.

#### LIGHTING DESIGN

- Variable: Three different light distribution options for maximum flexibility in use.
- Accessories: Slip resistant glass (R12) and anti-glare louvre available as accessories.

#### INSTALLATION

- Advantageous: Choice of three in-ground supports for underground cable or cabling with empty conduits.
- Easy installation: Flexible power cord H07-RN8F compatible with IP 68 quick connectors and cast resin boxes for electrical connection outside luminaire housing.



#### In-ground luminaires | TERRA EDELSTAHL 245

Type of protection: IP 68 Protection class: I Impact protection: IK10 Maximum Static Load: 2000 kg

Housing made of corrosion-resistant die-cast aluminium, powder-coated. Circular shape marine grade stainless steel cover and screws, Flush mounted toughened glass, High-performance LED freeform mirror optics. With H07RN8-F connecting cable, L 500 mm.

#### Use of in-ground support is necessary, please order chosen version for your application separately.

Available colour: 0 = stainless steel

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> a [°]	Lighting control
In-ground luminaire	s		p. r g	(**)	[]		Price Category 12
Cut out DA 225 mm	, TE 145 mm						
Symmetrical medius	m beam light distribution						
641284.000	D 245, H 2	830	2300	28	82	39°	on/off
641284.000.1	D 245, H 2	840	2200	28	79	24°	on/off
Symmetrical wide b	eam light distribution						
641285.000	D 245, H 2	830	2550	28	91	61°	on/off
641285.000.1	D 245, H 2	840	2200	28	79	60°	on/off
Asymmetrical light of	distribution						
641286.000	D 245, H 2	830	2400	28	86		on/off
641286.000.1	D 245, H 2	840	2200	28	79		on/off





#### LED 28 W ≈

- 1 x 150 W QT12 (150 W Psys) 1 x 42 W TC-TEL (47 W Psys)
- 1 x 35 W HIT (43 W Psys)

#### In-ground luminaires | TERRA EDELSTAHL 245

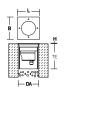
Type of protection: IP 68 Protection class: I Impact protection: IK10 Maximum Static Load: 2000 kg

Housing made of corrosion-resistant die-cast aluminium, powder-coated. Marine grade stainless steel square shaped cover and screws. Flush mounted toughened glass. High-performance LED freeform mirror optics. With H07RN8-F connecting cable, L 500 mm.



Available colour: 0 = stainless steel

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> a [°]	Lighting control
In-ground luminaire	s						Price Category 12
Cut out DA 225 mm	, TE 145 mm						
Symmetrical mediur	m beam light distribution						
641287.000	L 245, B 245, H 2	830	2150	28	77	24°	on/off
641287.000.1	L 245, B 245, H 2	840	2200	28	79	24°	on/off
Symmetrical wide b	eam light distribution						
641288.000	L 245, B 245, H 2	830	2150	28	77	60°	on/off
641288.000.1	L 245, B 245, H 2	840	2200	28	79	60°	on/off
Asymmetrical light of	distribution						
641289.000	L 245, B 245, H 2	830	2150	28	77		on/off
641289.000.1	L 245, B 245, H 2	840	2200	28	79		on/off



#### Comparison LED vs. conventional lamps

#### LED 28 W ≈

1 x 150 W QT12 (150 W Psys) 1 x 42 W TC-TEL (47 W Psys) 1 x 35 W HIT (43 W Psys)

In-ground support	t		Price Category 12
982011.000	D 220, H 141	In-ground support for empty conduits cabling.	
982012.000	D 302, H 320	Large in-ground support for underground cable.	
982013.000	D 300, H 60	Bottom closure for large in-ground support.	
Glass, non-slip			Price Category 12
982014.010	D 185, H 15	Glass, non-slip R12	
Lamellar insert			Price Category 12
982015.003	D 130, H 19	Lamellar insert	
IP 68 plug connec	otor		Price Category 11
982398.003	L 81, B 35, H 35	Connector, 5 pole, with plug and socket	
H-distributor IP 68	o.		Drice Ceterrory 11
982399.003	L 170, B 71, H 35	H-distributor IP 68	Price Category 11



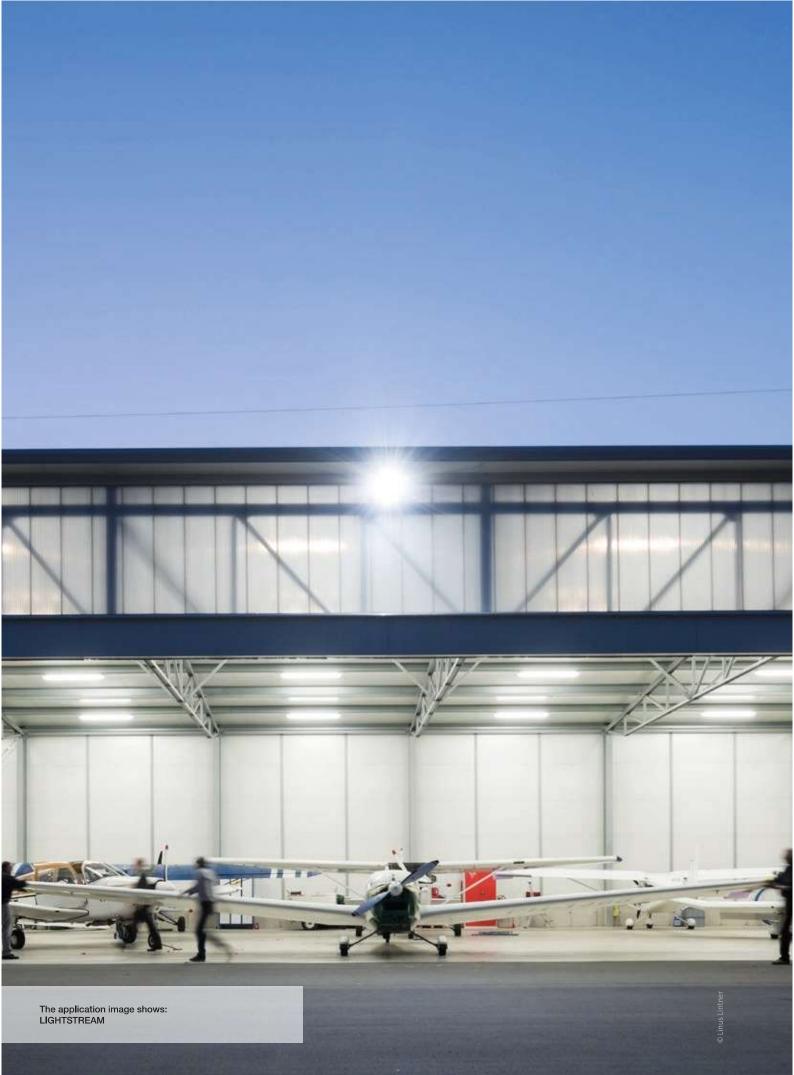


































PAR16 718-719

ANDHO with earth spike 720-723

ANDHO with mounting box 720-721 | 724-727

**ANDHO** with mounting plate 720-721 | 724 | 728-729

ALU-STAR 730-731

LIGHTSTREAM 723-741



### PAR<sub>16</sub>

Garden spotlights

#### ARCHITECTURE

- Advantageous: Reduced form language together with a high degree of functionality are characteristic of the PAR 16 luminaires.
- **Robust:** Housing: die-cast aluminium, powder-coated.
- Long service life: Peg made of fiber reinforced plastic.

#### LIGHTING DESIGN

- Extensive: The choice of three front panel versions allows these models to be adapted to all applications: Grille for operation in robust conditions, guard for shielding upwards or flat glass cover for targeted accentuation.

#### INSTALLATION

- Straightforward: Portable garden spotlights.
- Easy installation: With 3 m connection cable including safety plug (Schuko).
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.



#### Garden spotlights | PAR16

Type of protection: **IP 55**Protection class: I
Impact protection: **I**K04



Housing: die-cast aluminium, powder-coated. Peg made of fiber reinforced plastic. Safety glass, clear. With 3 m connection cable including safety plug (Schuko).

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	₹ []	Lighting control
Garden spotlight w	rith earth spike						Price Category 12
722221.0031	L 157, B 98, H 275	830	140	4,4	32	102	on/off
721680.0931 .Q	L 157, B 98, H 275	LEDPAF	R16 5 W				on/off



#### Garden spotlights | PAR16

Type of protection: **IP 55** Protection class: I Impact protection: **IK**04

Housing and antiglare hood: die-cast aluminium, powder-coated. Peg made of fiber reinforced plastic. Safety glass, clear. With 3 m connection cable including safety plug (Schuko).

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Garden spotlight wi	th earth spike and anti-gla	re shield				Price Category 12
722222.0031	L 191, B 98, H 275	830	95	4,4	22	on/off
721681.0931	L 191, B 98, H 275	LEDPAF	R16 5 W			on/off



#### Garden spotlights | PAR16

Type of protection: **IP 55**Protection class: I
Impact protection: **IK**04

Housing and protective grill: die-cast aluminium, powder-coated. Peg made of fiber reinforced plastic. Safety glass, clear. With 3 m connection cable including safety plug (Schuko).

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Garden spotlight	with earth spike and protect	tive grille				Price Category 12
722223.0031	L 170, B 98, H 275	830	85	4,4	19	on/off
721682.0931	L 170, B 98, H 275	LEDPAF	R16 5 W			on/off



# **ANDHO**

Everything at a glance



#### Further versions:

- Surface mounted downlights
- Outdoor luminaires and pole top luminaires

**IP65** 

Cover clear single-pane toughened glass.

Reflectors made of reflex boosted MIRO-SILVER® with choice of four beam angles for ultimate flexibility in application.

Portable garden spotlights.
Environmentally friendly and resource-saving due to replaceable components.

Spotlight with **mounting plate** can be rotated 20° swivelled 90°.

8

Spotlight with **mounting box** can be rotated 360° and swivelled 90°.



# **ANDHO**

Garden spotlights

# ARCHITECTURE

- Straightforward: Portable garden spotlights.
- Long service life: Robust outdoor operation ensured by use of high quality material like powder coated, corrosion-resistant pressure die-cast aluminium, toughened glass and stainless steel.
- Robust: Seawater resistant coating.

# LIGHTING DESIGN

- Efficient: Reflector made of super-reflective MIRO-SILVER® for outstanding efficiency.
- Straightforward: Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

# INSTALLATION

- Easy installation: With 5 m power supply cable, including safety plug.
- **Standard:** Membrane valve to prevent condensation.
- Advantageous: No corrosion of the ground spike in the soil due to the use of glass fibre reinforced plastic.

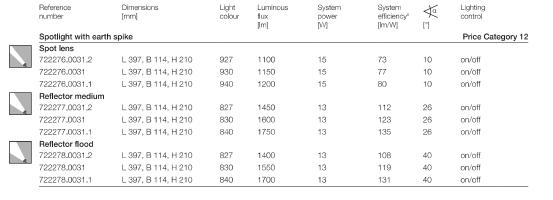


### Garden spotlights | ANDHO mini

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K07

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Peg made of fiber reinforced plastic. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, edge printed. Rotation-symmetric reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water. Driver integrated. With 5 m power supply cable, including safety plug.

Available colour: 31 = anthracite





Comparison LED vs. conventional lamps

LED 13 W  $\approx$ 

1 x 90 W QT12 (96 W Psys)

LED 15 W ≈

1 x 75 W QT12 (80 W Psys)

Snap-on hood			Price Category 12
982165.003	L 140, B 120, H 130	Can be rotated 360 degrees stainless steel, powder coated, black	



Louvre as push-o	on attachment		Price Category 12
982162.003	D 120, H 85	Can be rotated 360 degrees stainless steel, powder coated, black	



Barn door shutte	er with mounting attachment		Price Category 12
982168.003 L 266, B 266, H 31		Can be rotated 360 degrees stainless steel, powder coated, black	



Clear reeded gla	ss with mounting attachm	ent	Price Category 12
982159.000	D 117, H 58	Elliptical beam angle.	



superspot	<10°
spot	10°-20°
medium	>20°-35°
flood	>35°-45°
wide flood	>45°-70°
extra wide flood	>70°



# **ANDHO**

Spotlights

# ARCHITECTURE

- **Design-oriented:** Cylindrical shape with no visible cooling fins.
- Long service life: Robust outdoor operation ensured by use of high quality material like powder coated, corrosion-resistant pressure die-cast aluminium, toughened glass and stainless steel.
- Robust: Seawater resistant coating.

# LIGHTING DESIGN

- Advantageous: Reflectors made of reflex boosted MIRO-SILVER® with choice of four beam angles for ultimate flexibility in application.
- Flexible: Spotlight with mounting box can be rotated 360° and swivelled 90°, spotlight with mounting plate can be rotated 20° swivelled 90°.
- Straightforward: Spotlight can be precisely adjusted and locked into position for tilt and rotation.

# INSTALLATION

- **Versatile:** 2 mounting types mounting box or mounting plate.
- **Standard:** With membrane valve to avoid condensation.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.





Further luminaires of this series, see:
Outdoor lighting | Ceiling and wall luminaires
Outdoor lighting | Pole luminaires







### Spotlights | ANDHO mini - with mounting box

Type of protection: **IP 65**Protection class: II
Impact protection: **I**K07

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Rotation angle: 360° stepless, tilt angle 90° in increments of 5°, angle scale can be adjusted and locked. Cover clear single-pane toughened glass, edge printed. With rotationally symmetrical reflector or narrow-beam lens. Reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water. Fixing on the wall outside the sealed volume, drill

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

hole deviations can be compensated.



### Comparison LED vs. conventional lamps

**LED 23 W ≈** 1 x 20 W HIT (23 W Psys)

1 x 35 W HIT (43 W Psys)

LED 27 W ≈



	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> a ["]	Lighting control
	Spotlight							Price Category 12
1	Spot lens							
l	722183.00X.2.76	L 190, B 114, H 152	927	1700	23	74	10	DALI
	722183.00X.76	L 190, B 114, H 152	930	1800	23	78	10	DALI
	722183.00X.1.76	L 190, B 114, H 152	940	1900	23	83	10	DALI
1	Reflector medium							
l	722184.00X.2.76	L 190, B 114, H 152	827	3000	27	111	26	DALI
•	722184.00X.76	L 190, B 114, H 152	830	3300	27	122	26	DALI
	722184.00X.1.76	L 190, B 114, H 152	840	3550	27	131	26	DALI
1	Reflector flood							
l	722185.00X.2.76	L 190, B 114, H 152	827	2800	27	104	40	DALI
	722185.00X.76	L 190, B 114, H 152	830	3100	27	115	40	DAL
	722185.00X.1.76	L 190, B 114, H 152	840	3350	27	124	40	DALI



Snap-on hood			Price Category 12
982165.003	L 140, B 120, H 130	Can be rotated 360 degrees stainless steel, powder coated, black	



Louvre as push-on	Price Category 12		
982162.003	D 120, H 85	Can be rotated 360 degrees stainless steel, powder coated, black	



Barn door shutter wi	th mounting attachment		Price Category 12
982168.003	L 266, B 266, H 31	Can be rotated 360 degrees stainless steel, powder coated, black	



Clear reeded glass with mounting attachment		t	Price Category 12
982159.000	D 117, H 58	Elliptical beam angle.	









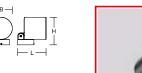
### Spotlights | ANDHO midi - with mounting box

Type of protection: **IP 65**Protection class: II
Impact protection: **I**K08

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Rotation angle: 360° stepless, tilt angle 90° in increments of 5°, angle scale can be adjusted and locked. Cover clear single-pane toughened glass, edge printed. Rotation-symmetric reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b> 0	Lighting control
	Spotlight							Price Category 12
	Reflector superspot							
	722179.00X.2.76	L 199, B 154, H 192	927	3450	41	84	9	DALI
	722179.00X.76	L 199, B 154, H 192	830	3750	41	91	9	DALI
	722179.00X.1.76	L 199, B 154, H 192	840	3950	41	96	9	DALI
	Reflector spot							
	722180.00X.2.76	L 199, B 154, H 192	827	4700	39	121	17	DALI
	722180.00X.76	L 199, B 154, H 192	830	4850	39	124	17	DALI
	722180.00X.1.76	L 199, B 154, H 192	840	5350	39	137	17	DALI
	Reflector medium							
2	722181.00X.2.76	L 199, B 154, H 192	827	4700	39	121	34	DAL
	722181.00X.76	L 199, B 154, H 192	830	4850	39	124	34	DALI
	722181.00X.1.76	L 199, B 154, H 192	840	5150	39	132	34	DALI
	Reflector wide flood							
	722182.00X.2.76	L 199, B 154, H 192	827	4700	39	121	59	DALI
	722182.00X.76	L 199, B 154, H 192	830	4800	39	123	59	DALI
	722182.00X.1.76	L 199, B 154, H 192	840	5100	39	131	59	DALI





Comparison LED vs. conventional lamps

LED 39 W ≈

1 x 50 W HIT (56 W Psys)

LED 41 W ≈

1 x 35 W HIT (43 W Psys)

Snap-on hood			Price Category 12
982166.003	D 160, H 170	Can be rotated 360 degrees stainless steel, powder coated, black	

Louvre as push-	on attachment		Price Category 12
982163 003	D 160. H 97	Can be rotated 360 degrees stainless steel, powder coated, black	

Barn door shutter with mounting attachment			Price Category 12
982169.003	L 340, B 340, H 31	Can be rotated 360 degrees stainless steel, powder coated, black	

Clear reeded glas	ss with mounting attachme	nt	Price Category 12
982160.000	D 159, H 58	Elliptical beam angle.	















superspot	<10°
spot	10°-20°
medium	>20°-35°
flood	>35°-45°
wide flood	>45°-70°
extra wide flood	>70°





Comparison

LED 23 W ≈

LED 27 W ≈

1 x 20 W HIT (23 W Psys)

1 x 35 W HIT (43 W Psys)

### Spotlights | ANDHO mini - with mounting plate

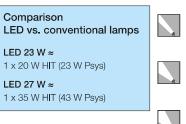
Type of protection: IP 65 Protection class: II Impact protection: IK07



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Rotation angle:  $40^\circ$  stepless, tilt angle  $90^\circ$  in increments of  $5^\circ$ , angle scale can be adjusted and locked. Cover clear single-pane toughened glass, edge printed. Rotation-symmetric reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control
Spotlight							Price Category 12
Spot lens							
722266.00X.2.76	L 227, B 114, H 182	927	1700	23	74	10	DALI
722266.00X.76	L 227, B 114, H 182	930	1800	23	78	10	DALI
722266.00X.1.76	L 227, B 114, H 182	940	1900	23	83	10	DALI
Reflector medium							
722267.00X.2.76	L 227, B 114, H 182	827	3000	27	111	26	DALI
722267.00X.76	L 227, B 114, H 182	830	3300	27	122	26	DALI
722267.00X.1.76	L 227, B 114, H 182	840	3550	27	131	26	DALI
Reflector flood							
722268.00X.2.76	L 227, B 114, H 182	827	2800	27	104	40	DALI
722268.00X.76	L 227, B 114, H 182	830	3100	27	115	40	DALI
722268.00X.1.76	L 227, B 114, H 182	840	3350	27	124	40	DALI



4	8	6	
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Snap-on hood			Price Category 12
982165.003	L 140, B 120, H 130	Can be rotated 360 degrees stainless steel, powder coated, black	



Louvre as push-or	n attachment		Price Category 12
982162.003	D 120, H 85	Can be rotated 360 degrees stainless steel, powder coated, black	



Barn door shutter with mounting attachment			Price Category 12
982168.003	L 266, B 266, H 31	Can be rotated 360 degrees stainless steel, powder coated, black	



Clear reeded glass with mounting attachment		nt	Price Category 12
982159.000	D 117, H 58	Elliptical beam angle.	

Round clip with strain relief			Price Category 12	
982974.003	D 23, L 89,	Max. 5 x 1.5 mm <sup>2</sup> and cable diameter Ø 5 - 12 mm.		









982166.003

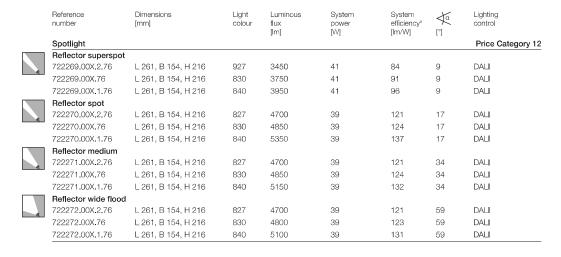
### Spotlights | ANDHO midi - with mounting plate

Type of protection: **IP 65**Protection class: II
Impact protection: IK08

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Rotation angle: 40° stepless, tilt angle 90° in increments of 5°, angle scale can be adjusted and locked. Cover clear single-pane toughened glass, edge printed. Rotation-symmetric reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water. Fixing on the wall outside the sealed volume, drill hole deviations can be compensated.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver

D 160, H 170





Comparison LED vs. conventional lamps

LED 39 W ≈

1 x 50 W HIT (56 W Psys)

LED 41 W ≈

1 x 35 W HIT (43 W Psys)

Snan-on hood	Price Category 12

Can be rotated 360 degrees stainless steel, powder coated, black



Louvre as push-o	n attachment		Price Category 12
982163.003	D 160, H 97	Can be rotated 360 degrees stainless steel, powder coated, black	



Barn door shutter with mounting attachment			Price Category 12
982169.003	L 340, B 340, H 31	Can be rotated 360 degrees stainless steel, powder coated, black	



Clear reeded glass	with mounting attachn	nent	Price Category 12
982160.000	D 159, H 58	Elliptical beam angle.	



Round clip with stra	in relief		Price Category 12
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter $\emptyset$ $5$ - $12 \text{ mm}$ .	







superspot	<10°
spot	10°-20°
medium	>20°-35°
flood	>35°-45°
wide flood	>45°-70°
extra wide flood	>70°



# **ALU-STAR**

Spotlights

# ARCHITECTURE

- Clever: High efficient LED outdoor floodlight by strict thermal separation of LED and driver compartment.
- Long service life: Robust outdoor operation ensured by use of high quality material like powder coated, corrosion-resistant pressure die-cast aluminium, toughened glass and stainless steel.
- Robust: Seawater resistant coating.

# LIGHTING DESIGN

- Advantageous: Reflectors made of reflex boosted MIRO-SILVER® with choice of four beam angles for ultimate flexibility in application.
- Straightforward: Beam direction can be precisely adjusted and locked into position for tilt and rotation by a sopisticated step mechanism.

# INSTALLATION

- Functional: Universal mounting position allowed due to sophisticated design details like generous space for cable placement.
- **Standard:** Membrane valve to prevent condensation.
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.



721814.00X.1

721814.00X.1.76

### Spotlights | ALU-STAR maxi

Type of protection: **IP 65**Protection class: I
Impact protection: **IK**07

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Stainless steel fixing clips with compensation for drill hole deviations. Rotation angle can be adjusted and locked in 3,6 degree steps, tilt angle in 5 degree steps with angular scale. Thermally decoupled driver compartment, integral driver. Toughened glass cover. COB-LEDs with socket for change on site. Rotation-symmetric reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water. Piano-key terminal up to  $2\times5\times2,5~\mathrm{mm}^2,$  max cable Ø 13 mm, comes with second cable gland for loop through.

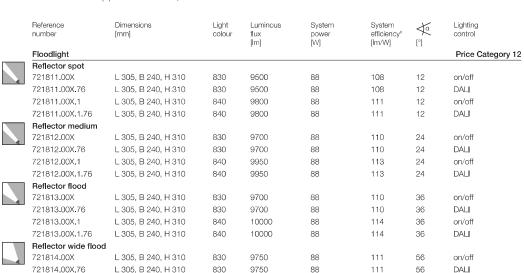
Available colours (X): 31 = anthracite, 4 = silver

L 305, B 240, H 310

L 305, B 240, H 310

840

840



10000

10000



Comparison LED vs. conventional lamps LED 88 W ≈ 1 x 150 W HIT-CE (170 W Psys)

Snap-on hood			Price Category 12
982167.003	D 211, H 221	Can be rotated 360 degrees stainless steel, powder coated, black	

88

114

114

56

on/off

DALI

Louvre as push-	on attachment		Price Category 12
982164 003	D 211, L 220, H 100	Can be rotated 360 degrees stainless steel, powder coated, black	_

			D: 01 10
Barn door shutter with mounting attachment			Price Category 12
982170.003	L 438, B 438, H 31	Can be rotated 360 degrees stainless steel, powder coated, black	











superspot	<10°
spot	10°-20°
medium	>20°-35°
flood	>35°-45°
wide flood	>45°-70°
extra wide flood	>70°

# LIGHTSTREAM

Everything at a glance







# LIGHTSTREAM

Spotlights

# ARCHITECTURE

- Versatile: Clever combination of spotlight and pole luminaire in one.
- Robust: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Reliable planning: The comprehensive selection of light distributions and light outputs allows for an universal application regarding illumination of private paths, public roads up to area lighting (parking lots) according to EN 13201.
- **Standard:** Control gear with integrated surge protection up to 10 kV.

# INSTALLATION

- Easy installation: Quick and easy installation due to pre-wired connection cable.
- Advantageous: Extensive installation accessories for any application scenarios.
- Smart Lighting: Versions with Zhaga Book 18 sockets available for the integration of components for light management systems or sensors.

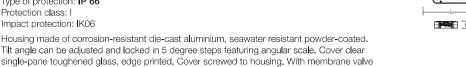


Further luminaires of this series, see: Outdoor lighting | Pole luminaires



### Spotlights | LIGHTSTREAM mini

Type of protection: IP 66 Protection class: I Impact protection: IK06





Pre-assembled connection cable, length 0.5 m. Modular design: Mounting set must be ordered separately.

as a standard to avoid condensed water. Lens system made of plastic (PMMA). Light distribution optimised for road or area lighting. Replaceable LED spot modules according to ZHAGA standards. Constant light output (CLO). Converter compatible with DC. With NFC programming interface.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b> 0	Lighting control
Area floodlight							Price Category 12
Medium lens							
722283.00X	L 395, B 166, H 49	830	4600	31	148	25	on/off
722283.00X.76	L 395, B 166, H 49	830	4600	31	148	25	DAL
722283.00X.1	L 395, B 166, H 49	840	4900	31	158	25	on/off
722283.00X.1.76	L 395, B 166, H 49	840	4900	31	158	25	DALI
Wide flood lens							
722284.00X	L 395, B 166, H 49	830	4600	31	148	55/55	on/off
 722284.00X.76	L 395, B 166, H 49	830	4600	31	148	55/55	DALI
722284.00X.1	L 395, B 166, H 49	840	4900	31	158	55/55	on/off
722284.00X.1.76	L 395, B 166, H 49	840	4900	31	158	55/55	DALI
Extra wide flood lens	S						
722285.00X	L 395, B 166, H 49	830	4500	31	145	90/90	on/off
722285.00X.76	L 395, B 166, H 49	830	4500	31	145	90/90	DALI
722285.00X.1	L 395, B 166, H 49	840	4800	31	155	90/90	on/off
722285.00X.1.76	L 395, B 166, H 49	840	4800	31	155	90/90	DALI



Comparison LED vs. conventional lamps LED 31 W ≈

1 x 50 W HIT (56 W Psys)

### Modules | LIGHTSTREAM - Pole tops

Pole attachment for installation on the pole top. Pressure die-cast aluminium, seawater resistant powder-coated. For spigot diameter Ø 76 mm. Set of stainless steel fixing screws included. Cable gland into the pole as protection against rainwater.

Available colours (X): 31 = anthracite, 4 = silver

Pole tops



Price Category 12

			. olo topo
	Pole attachment for 76 mm spigot.	L 91, B 87, H 168	982978.00X
Price Category 12			Reducing adapters
	For reducing Ø 76 mm spigot size to Ø 42mm.	D 78, H 97	982983.000
	For reducing Ø 76 mm spigot size to Ø 60 mm	L 43, B 76, H 95	982562.000

# Modules | LIGHTSTREAM - Universal mounting bracket

Mounting bracket for attachment to floor, wall and ceiling. Stainless steel, seawater resistant powder-coated. Available colours (X): 31 = anthracite, 4 = silver

Universal mounting bracket		Price Category 12
982975.00X	L 180, B 53, H 55	



# Modules | LIGHTSTREAM - Mounting bracket for facade systems

Mounting bracket for installation on facade systems. Increased cross-sectional area and larger hole spacing for better force distribution. Stainless steel, seawater resistant powder-coated.

Available colours (X): 31 = anthracite, 4 = silver

Mounting brack	tet for facade systems	Price Category 12
982976.00X	L 294, B 70, H 55	









### Spotlights | LIGHTSTREAM midi

Type of protection: IP 66 Protection class: I Impact protection: IK06



Lighting

on/off

DALI

on/off

DAL

on/off

on/off

on/off

on/off

on/off

DALI

on/off

DAL

Price Category 12

Price Category 12

 $\checkmark$ 

25

25

25

25

55/55

55/55

55/55

55/55

90/90

90/90

90/90

90/90

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, edge printed. Cover screwed to housing. With membrane valve as a standard to avoid condensed water. Lens system made of plastic (PMMA). Light distribution optimised for road or area lighting, Replaceable LED spot modules according to ZHAGA standards, Constant light output (CLO). Converter compatible with DC. With NFC programming interface. Pre-assembled connection cable, length 0.5 m.

Light

830

830

840

840

830

830

840

colour

Luminous

[lm]

13800

13800

14800

14800

13700

13700

14700

14500

System

93

93

93

93

93

93

93

93

System

[lm/W]

148

148

159

159

147

147

158

158

145

145

156

156

### Modular design: Mounting set must be ordered separately.

L 516, B 220, H 56

Available colours (X): 31 = anthracite, 4 = silver

[mm]

Dimensions



LED vs. conventional lamps

1 x 150 W HIT (160 W Psys)

Comparison

LED 93 W ≈





Reference

number



























Pole attachment for installation on the pole top. Pressure die-cast aluminium, seawater resistant powder-coated. For spigot diameter Ø 76 mm. Set of stainless steel fixing screws included. Cable gland into the pole as protection against rainwater.

Available colours (X): 31 = anthracite, 4 = silver





Pole tops			Price Category 12
982978.00X	L 91, B 87, H 168	Pole attachment for 76 mm spigot.	

Reducing adapters				
982983.000	D 78, H 97	For reducing Ø 76 mm spigot size to Ø 42mm.		
982562.000	L 43, B 76, H 95	For reducing Ø 76 mm spigot size to Ø 60 mm		



### Modules | LIGHTSTREAM - Universal mounting bracket

Mounting bracket for attachment to floor, wall and ceiling. Stainless steel, seawater resistant powder-coated. Available colours (X): 31 = anthracite, 4 = silver

Universal mounting bracket		Price Category 12
982975.00X L 180, B 53, H 55		



# Modules | LIGHTSTREAM - Mounting bracket for facade systems

Mounting bracket for installation on facade systems. Increased cross-sectional area and larger hole spacing for better force distribution. Stainless steel, seawater resistant powder-coated.

Available colours (X): 31 = anthracite, 4 = silver







### Spotlights | LIGHTSTREAM maxi

Type of protection: IP 66 Protection class: I Impact protection: IK06





Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, edge printed. Cover screwed to housing, With membrane valve as a standard to avoid condensed water. Lens system made of plastic (PMMA). Light distribution optimised for road or area lighting. Replaceable LED spot modules according to ZHAGA standards. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. Pre-assembled connection cable, length 0.5 m.

# Modular design: Mounting set must be ordered separately.

Available colours (X): 31 = anthracite, 4 = silver

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b> 0	Lighting control
	Area floodlight							Price Category 12
	Medium lens							
	722289.00X	L 743, B 291, H 56	830	36700	248	148	25	on/off
	722289.00X.76	L 743, B 291, H 56	830	36700	248	148	25	DALI
	722289.00X.1	L 743, B 291, H 56	840	39500	248	159	25	on/off
	722289.00X.1.76	L 743, B 291, H 56	840	39500	248	159	25	DALI
	Wide flood lens							
	722290.00X	L 743, B 291, H 56	830	36600	248	148	55/55	on/off
-	722290.00X.76	L 743, B 291, H 56	830	36600	248	148	55/55	DALI
	722290.00X.1	L 743, B 291, H 56	840	39300	248	158	55/55	on/off
	722290.00X.1.76	L 743, B 291, H 56	840	39300	248	158	55/55	DALI
	Extra wide flood len	S						
	722291.00X	L 743, B 291, H 56	830	36000	248	145	90/90	on/off
	722291.00X.76	L 743, B 291, H 56	830	36000	248	145	90/90	DALI
	722291.00X.1	L 743, B 291, H 56	840	38600	248	156	90/90	on/off
	722291.00X.1.76	L 743, B 291, H 56	840	38600	248	156	90/90	DALI



Comparison LED vs. conventional lamps LED 248 W ≈ 1 x 400 W HIE (440 W Psys)

# Modules | LIGHTSTREAM - Pole tops

Pole attachment for installation on the pole top. Pressure die-cast aluminium, seawater resistant powder-coated. For spigot diameter Ø 76 mm. Set of stainless steel fixing screws included. Cable gland into the pole as protection against rainwater.

Available colours (X): 31 = anthracite, 4 = silver

Pole tops	Price Category 12		
982978.00X	L 91, B 87, H 168	Pole attachment for 76 mm spigot.	
Reducing adapters			Price Category 12
982983.000	D 78, H 97	For reducing Ø 76 mm spigot size to Ø 42mm.	
982562 000	L 43 B 76 H 95	For reducing Ø 76 mm spigot size to Ø 60 mm	





# Modules | LIGHTSTREAM - Universal mounting bracket

Mounting bracket for attachment to floor, wall and ceiling. Stainless steel, seawater resistant powder-coated. Available colours (X): 31 = anthracite, 4 = silver

Universal mounti	ng bracket	Price Category 12
982975.00X L 180. B 53. H 55		



# Modules | LIGHTSTREAM - Mounting bracket for facade systems

Mounting bracket for installation on facade systems. Increased cross-sectional area and larger hole spacing for better force distribution. Stainless steel, seawater resistant powder-coated.

Available colours (X): 31 = anthracite, 4 = silver

Mounting brack	tet for facade systems	Price Category 12
982976.00X	L 294, B 70, H 55	









### Accessories | LIGHTSTREAM mini / midi

Mounting of the luminaire only possible with universal mounting bracket 982975.00X on the following accessories.



Wall arm for wall mounting. Made of stainless steel, blasted or powder coated finish. Option of top or lateral mounting at frontal bracket. Hidden cabling inside tubular profile with additional inlet at wall mounting plate.

Wall bracket			Price Category 12
982058.000	L 500, B 180, H 180	Overall lenght 500 mm, uncoated	
982058.0031	L 500, B 180, H 180	Overall lenght 500 mm, anthracite metallic	
982086.000	L 1000, B 180, H 180	Overall lenght 1000 mm, uncoated	
982086.0031	L 1000, B 180, H 180	Overall lenght 1000 mm, anthracite metallic	



Accessories | Pole tops
Pole attachment for installation on the pole top. Steel, hot-dip galvanised, unpainted or powder coated. Set of stainless steel fixing screws included. Cable gland into the pole as strain-relief and protection against rainwater.

Pole top fixings	opposite mounting		Price Category 12
982049.000	L 250, B 114, H 153	for spigot 60 mm, uncoated	
982049.00X	L 250, B 114, H 153	for spigot 60 mm, powder-coated	
982050.000	L 250, B 114, H 153	for spigot 76 mm, uncoated	
982050.00X	L 250, B 114, H 153	for spigot 76 mm, powder-coated	



Accessories | Adapter set
Adapter plate set for mounting from several spotlights on a double pole attachment, stainless steel, powder coated. With IP 66 junction box and additional fixing screws. The double pole attachment for a matching top dimension must be ordered separately.

Adapter set for po	ole attachments	Price Category 11	
982524.00X	L 395, B 395, H 120	Adapter set for 4-fold configuration (4 x 90°)	



Accessories | Pole clip
Mounting bracket for lateral attachment along the pole. Stainless steel bracket with galvanised srews. Smooth span width for different mounting heights. Installation of the luminaire only possible with mounting bracket.

		3	
Pole clip			Price Category 12
982092.000	L 178, B 174, H 38	for pole diameter 95 - 114 mm, uncoated	
982093.000	L 178, B 194, H 38	for pole diameter 115 - 135 mm, uncoated	

Powder coating on request.



### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm<sup>2</sup>. One D01 / E14 Fuse. 2 outgoing lines.

• .		·	9 9
Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	



Junction box H w	rith strain relief		Price Category 11
982638.003	L 78, B 53, H 28	Max. $4 \times 1.5$ mm <sup>2</sup> and cable diameter Ø 0.75 - 12 mm. $1 \times \ln / 3 \times \text{Out}$ , including 1 blind plug.	

Round clip with strain relief			Price Category 12
982977.003	D 23, L 64,	Max. $4 \times 4 \text{ mm}^2$ and cable diameter $\emptyset$ 7 - 12 mm.	
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø 5 - 12 mm.	



### Accessories | LIGHTSTREAM maxi

Mounting of the luminaire only possible with mounting bracket for facade systems 982976.00X on the following accessories.



### Accessories | Pole tops

Pole attachment for installation on the pole top. Steel, hot-dip galvanised, unpainted or powder coated. Set of stainless steel fixing screws included. Cable gland into the pole as strain-relief and protection against rainwater.

Pole tops fixings	opposite mounting		Price Category 12
982003.000	L 346, B 112, H 154	for spigot 76 mm, uncoated	
982003.00X	L 346, B 112, H 154	for spigot 76 mm, powder-coated	
982004.000	L 346, B 136, H 204	for spigot 89 mm, uncoated	
982004.00X	L 346, B 136, H 204	for spigot 89 mm, powder-coated	
982005.000	L 346, B 136, H 204	for spigot 108 mm, uncoated	
982005.00X	L 346, B 136, H 204	for spigot 108 mm, powder-coated	



### Accessories | Adapter set

Adapter plate set for mounting from several spotlights on a double pole attachment, stainless steel, powder coated. With IP 66 junction box and additional fixing screws. The double pole attachment for a matching top dimension must be ordered separately.

Adapter set for pole attachments			Price Category 12
982401.00X	L 525, B 381, H 87	Adapter set for 3-fold configuration (3 x 120°)	-
982525 00X	L 460, B 410, H 55	Adapter set for 4-fold configuration (4 x 90°)	



### Accessories | Pole clip

Mounting bracket for lateral attachment along the pole. Stainless steel bracket with galvanised srews. Smooth span width for different mounting heights. Installation of the luminaire only possible with mounting bracket.

Pole clip			Price Category 12
982478.00X	L 346. B 235. H 90	for pole diameter 95 - 140 mm, powder-coated	



### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm<sup>2</sup>. One D01 / F14 Fuse. 2 outgoing lines.

riodenigi pidene.	Contact protoction in accorda	ioo mar veer ii mpat ioi o oab.	ace a remini i ene ber, bir race beauty and
Fuse box			Price Category 12
61100.000	L 265 B 72 H 75	Fuen hov	



Junction box H v	with strain relief		Price Category 11
982638.003	L 78, B 53, H 28	Max. $4 \times 1.5$ mm <sup>2</sup> and cable diameter Ø 0.75 - 12 mm. $1 \times \ln / 3 \times \text{Out}$ , including 1 blind plug.	



Round clip with	Price Category 12		
982977.003	D 23, L 64,	Max. 4 x 4 mm <sup>2</sup> and cable diameter Ø 7 - 12 mm.	
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø $5$ - $12 \text{ mm}$ .	











# LIGHTSTREAM

Spotlights

### ARCHITECTURE

- Versatile: Clever combination of spotlight and pole luminaire in one.
- Robust: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

# LIGHTING DESIGN

- Reliable planning: The comprehensive selection of light distributions and light outputs allows for an universal application regarding illumination of private paths, public roads up to area lighting (parking lots) according to EN 13201.
- **Dark Sky:** Protects insects and the environment. Avoiding light pollution.
- **Standard:** Control gear with integrated surge protection up to 10 kV.

# INSTALLATION

- Easy installation: Quick and easy installation due to pre-wired connection cable.
- Advantageous: Extensive mounting accessories for any application scenarios.
- Smart Lighting: Versions with Zhaga Book 18 sockets available for the integration of components for light management systems or sensors.







Further luminaires of this series, see:
Outdoor lighting | Projectors and floodlights



### Spotlights | LIGHTSTREAM mini

Type of protection: IP 66 Protection class: I Impact protection: IK06



Price Category 12



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, edge printed. Cover screwed to housing. With membrane valve as a standard to avoid condensed water. Lens system made of plastic (PMMA). Light distribution optimised for road or area lighting. Replaceable LED spot modules according to ZHAGA standards. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. Pre-assembled connection cable, length 6 m.

# Modular design: Mounting set must be ordered separately.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [im]	System power [W]	System efficiency* [lm/W]	Lighting control
Area floodlight						Price Category 12
Asymmetrical linea	ar light distribution for narr	ow streets and	d paths according	to DIN EN 13201		
722283.11X	L 395, B 166, H 49	830	4300	31	139	on/off
722283.11X.76	L 395, B 166, H 49	830	4300	31	139	DALI
722283.11X.1	L 395, B 166, H 49	840	4600	31	148	on/off
722283.11X.1.76	L 395, B 166, H 49	840	4600	31	148	DALI
Asymmetrical linea	ar light distribution for wide	e streets and p	aths according to	<b>DIN EN 13201</b>		
722284.11X	L 395, B 166, H 49	830	4400	31	142	on/off
722284.11X.76	L 395, B 166, H 49	830	4400	31	142	DAL
722284.11X.1	L 395, B 166, H 49	840	4700	31	152	on/off
722284.11X.1.76	L 395, B 166, H 49	840	4700	31	152	DALI
Asymmetrical narre	ow beam light distribution	for area lightir	ng (e.g. parking lot	s, loading zones	)	
722285.11X	L 395, B 166, H 49	830	4100	31	132	on/off
722285.11X.76	L 395, B 166, H 49	830	4100	31	132	DALI
722285.11X.1	L 395, B 166, H 49	840	4400	31	142	on/off
722285.11X.1.76	L 395, B 166, H 49	840	4400	31	142	DALI



Comparison LED vs. conventional lamps LED 31 W ≈ 1 x 50 W HIT (56 W Psys)

### Modules | LIGHTSTREAM - Pole tops

Pole attachment for installation on the pole top. Pressure die-cast aluminium, seawater resistant powder-coated. For spigot diameter Ø 76 mm. Set of stainless steel fixing screws included. Cable gland into the pole as protection against rainwater.

Available colours (X): 31 = anthracite, 4 = silver

Pole tops



982978.00X	L 91, B 87, H 168	Pole attachment for 76 mm spigot.	
Reducing adapte	rs		Price Category 12
982983.000	D 78, H 97	For reducing Ø 76 mm spigot size to Ø 42mm.	
982562.000	L 43, B 76, H 95	For reducing Ø 76 mm spigot size to Ø 60 mm	

### Modules | LIGHTSTREAM - Universal mounting bracket

Mounting bracket for attachment to floor, wall and ceiling. Stainless steel, seawater resistant powder-coated. Available colours (X): 31 = anthracite, 4 = silver

Universal moun	ting bracket	Price Category 12
982975 00X	L 180 B 53 H 55	



# Modules | LIGHTSTREAM - Mounting bracket for facade systems

Mounting bracket for installation on facade systems. Increased cross-sectional area and larger hole spacing for better force distribution. Stainless steel, seawater resistant powder-coated.

Available colours (X): 31 = anthracite, 4 = silver

Mounting bracket for facade systems		Price Category 12
982976.00X	L 294. B 70. H 55	









### Spotlights | LIGHTSTREAM midi

Type of protection: **IP 66**Protection class: I
Impact protection: **I**K06



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, edge printed. Cover screwed to housing. With membrane valve as a standard to avoid condensed water. Lens system made of plastic (PMMA). Light distribution optimised for road or area lighting. Replaceable LED spot modules according to ZHAGA standards. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. Pre-assembled connection cable, length 8 m.

### Modular design: Mounting set must be ordered separately.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Area floodlight						Price Category 12
Asymmetrical linea	r light distribution for narr	ow streets and	paths according t	to DIN EN 13201		
722286.11X	L 516, B 220, H 56	830	12800	93	138	on/off
722286.11X.76	L 516, B 220, H 56	830	12800	93	138	DALI
722286.11X.1	L 516, B 220, H 56	840	13800	93	148	on/off
722286.11X.1.76	L 516, B 220, H 56	840	13800	93	148	DALI
Asymmetrical linea	r light distribution for wide	e streets and p	aths according to	DIN EN 13201		
722287.11X	L 516, B 220, H 56	830	13100	93	141	on/off
722287.11X.76	L 516, B 220, H 56	830	13100	93	141	DALI
722287.11X.1	L 516, B 220, H 56	840	14100	93	152	on/off
722287.11X.1.76	L 516, B 220, H 56	840	14100	93	152	DALI
Asymmetrical narro	ow beam light distribution	for area lightin	g (e.g. parking lots	s, loading zones)		
722288.11X	L 516, B 220, H 56	830	12300	93	132	on/off
722288.11X.76	L 516, B 220, H 56	830	12300	93	132	DALI
722288.11X.1	L 516, B 220, H 56	840	13200	93	142	on/off
722288.11X.1.76	L 516, B 220, H 56	840	13200	93	142	DALI



# Comparison LED vs. conventional lamps

**LED 93 W ≈** 2 x 70 W HIT (159 W Psys)



# Modules | LIGHTSTREAM - Pole tops

Pole attachment for installation on the pole top. Pressure die-cast aluminium, seawater resistant powder-coated. For spigot diameter  $\emptyset$  76 mm. Set of stainless steel fixing screws included. Cable gland into the pole as protection against rainwater.

Available colours (X): 31 = anthracite, 4 = silver

Pole tops			Price Category 12
982978.00X	L 91, B 87, H 168	Pole attachment for 76 mm spigot.	
Reducing adapters			Price Category 12
982983.000	D 78, H 97	For reducing Ø 76 mm spigot size to Ø 42mm.	
982562.000	L 43, B 76, H 95	For reducing Ø 76 mm spigot size to Ø 60 mm	



# Modules | LIGHTSTREAM - Universal mounting bracket

Mounting bracket for attachment to floor, wall and ceiling. Stainless steel, seawater resistant powder-coated. Available colours (X): 31 = anthracite, 4 = silver

Universal mounting bracket		Price Category 12
982975.00X	L 180, B 53, H 55	



# Modules | LIGHTSTREAM - Mounting bracket for facade systems

Mounting bracket for installation on facade systems. Increased cross-sectional area and larger hole spacing for better force distribution. Stainless steel, seawater resistant powder-coated.

Available colours (X): 31 = anthracite, 4 = silver

Mounting brack	et for facade systems	Price Category 12
982976.00X	L 294, B 70, H 55	





### Spotlights | LIGHTSTREAM maxi

Type of protection: IP 66 Protection class: I Impact protection: IK06

Price Category 12



Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, edge printed. Cover screwed to housing. With membrane valve as a standard to avoid condensed water. Lens system made of plastic (PMMA). Light distribution optimised for road or area lighting. Replaceable LED spot modules according to ZHAGA standards. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. Pre-assembled connection cable, length12 m.

### Modular design: Mounting set must be ordered separately.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency# [lm/W]	Lighting control
Area floodlight						Price Category 12
Asymmetrical linea	r light distribution for narr	ow streets and	paths according to	DIN EN 13201		
722289.11X	L 743, B 291, H 56	830	34200	248	138	on/off
722289.11X.76	L 743, B 291, H 56	830	34200	248	138	DALI
722289.11X.1	L 743, B 291, H 56	840	36700	248	148	on/off
722289.11X.1.76	L 743, B 291, H 56	840	36700	248	148	DALI
Asymmetrical linea	r light distribution for wide	streets and pa	aths according to D	IN EN 13201		
722290.11X	L 743, B 291, H 56	830	34900	248	141	on/off
722290.11X.76	L 743, B 291, H 56	830	34900	248	141	DAL
722290.11X.1	L 743, B 291, H 56	840	37500	248	151	on/off
722290.11X.1.76	L 743, B 291, H 56	840	37500	248	151	DALI
Asymmetrical narro	Asymmetrical narrow beam light distribution for area lighting (e.g. parking lots, loading zones)					
722291.11X	L 743, B 291, H 56	830	32700	248	132	on/off
722291.11X.76	L 743, B 291, H 56	830	32700	248	132	DALI
722291.11X.1	L 743, B 291, H 56	840	35200	248	142	on/off
722291.11X.1.76	L 743, B 291, H 56	840	35200	248	142	DALI



Comparison LED vs. conventional lamps LED 248 W ≈ 1 x 400 W HIE (440 W Psys)

### Modules | LIGHTSTREAM - Pole tops

Pole attachment for installation on the pole top. Pressure die-cast aluminium, seawater resistant powder-coated. For spigot diameter Ø 76 mm. Set of stainless steel fixing screws included. Cable gland into the pole as protection against rainwater.

Available colours (X): 31 = anthracite, 4 = silver

Pole tops



982978.00X	L 91, B 87, H 168	Pole attachment for 76 mm spigot.	
Reducing adapters			Price Category 12
982983.000	D 78, H 97	For reducing Ø 76 mm spigot size to Ø 42mm.	
982562.000	L 43, B 76, H 95	For reducing Ø 76 mm spigot size to Ø 60 mm	





# Modules | LIGHTSTREAM - Universal mounting bracket

Mounting bracket for attachment to floor, wall and ceiling. Stainless steel, seawater resistant powder-coated. Available colours (X): 31 = anthracite, 4 = silver

Universal mount	ing bracket	Price Category 12
982975.00X	L 180, B 53, H 55	



# Modules | LIGHTSTREAM - Mounting bracket for facade systems

Mounting bracket for installation on facade systems. Increased cross-sectional area and larger hole spacing for better force distribution. Stainless steel, seawater resistant powder-coated.

Available colours (X): 31 = anthracite, 4 = silver

Mounting bracket for facade systems		Price Category 12
982976.00X	L 294, B 70, H 55	









### Accessories | LIGHTSTREAM



Accessories | Multiple brackets
Pole bracket for side mounting, hot-dip galvanized steel. For spigot diameter  $\oslash$  76 mm. Bracket arm length 500 mm,  $\oslash$  60 mm.
Please order reducer (982562.000) adapter separately for installation the luminaire on the bracket!

Multiple brackets			Price Category 12
982588.000	L 1015, B 90, H 250	Pole bracket for 2 luminaires, uncoated	
982588.00X	L 1015, B 90, H 250	Pole bracket for 2 luminaires, powder-coated	
982589.000	L 894, B 787, H 250	Pole bracket for 3 luminaires, uncoated	
982589.00X	L 894, B 787, H 250	Pole bracket for 3 luminaires, powder-coated	
982590.000	L 1015, B 1015, H 250	Pole bracket for 4 luminaires, uncoated	
982590.00X	L 1015, B 1015, H 250	Pole bracket for 4 luminaires, powder-coated	



Reducing adapters			Price Category 12	
982562.000	L 43, B 76, H 95	For reducing Ø 76 mm spigot size to Ø 60 mm		



 $\label{lem:accessories | Wall bracket} \end{substitute} Wall bracket made of hot-dip galvanized steel. Bracket arm length 215 mm, 0.76 mm, 75 ° vertically inclined.$ 

Wall bracket			Price Category 12
982591.000	L 215, B 150, H 150	Wall bracket, uncoated	
982591.00X	L 215, B 150, H 150	Wall bracket, powder-coated	



### Accessories | Pole clip

Mounting bracket for lateral attachment along the pole. Stainless steel bracket with galvanised srews. Smooth span width for different mounting heights. Installation of the luminaire only possible with mounting bracket.

Pole clip			Price Category 12
Mini/Midi			
982092.000	L 178, B 174, H 38	for pole diameter 95 - 114 mm, uncoated	
982093.000	L 178, B 194, H 38	for pole diameter 115 - 135 mm, uncoated	
Maxi			
982478.00X	L 346, B 235, H 90	for pole diameter 95 - 140 mm, powder-coated	

Mini/Midi: powder coating on request.



### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables  $5 \times 16 \text{ mm}^2$ . One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	



Junction box H	with strain relief		Price Category 11
982638.003	L 78, B 53, H 28	Max. 4 x 1.5 mm <sup>2</sup> and cable diameter Ø 0.75 - 12 mm.	
		1 x ln / 3 x Out, including 1 blind plug.	

Round clip with str	ain relief		Price Category 12
982977.003	D 23, L 64,	Max. $4 \times 4 \text{ mm}^2$ and cable diameter Ø 7 - 12 mm.	
982974.003	D 23, L 89,	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø $5$ - $12 \text{ mm}$ .	







with LED and ballast thanks to Hybrid Lock System.

# Hybrid Lock System

- Fixed maintenance position
- Quick tool-free replacement
- No corrosion due to material mix



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# **Eccentric Lock System**

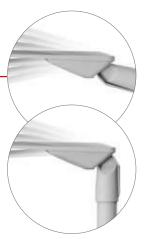
- Safe locking by eccentric system
- Tool-free opening
- One-handed operation



Zhaga **NEMA** 

Smart Lighting Versions with either 1 or 2 Zhaga Book 18 / NEMA sockets available for the integration of components for light management systems or sensors.

pole-top luminaire. Adjustable and lockable in 5° steps: Side mounting: tilted from  $0^{\circ}$  to  $-30^{\circ}$  (poles with curved bracket) Top mounting: tilted from -5° to +15° (straight poles)





# **MINGATA**

Outdoor luminaires and pole top luminaires

### ARCHITECTURE

- Variable: Installation on the pole as pole-top or side-mounted pole-top luminaire.
- Robust: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

### LIGHTING DESIGN

- Versatile: The comprehensive selection of light distributions and light outputs allows for an universal application regarding illumination of private paths, public roads up to area lighting (parking lots) according to EN 13201.
- **Dark Sky:** Protects insects and the environment. Avoiding light pollution.
- **Standard:** Control gear with integrated surge protection up to 10 kV.
- Future-proof: Easy LED replacement thanks to Zhaga standard.
- Long service life: LED rated life 100000 h ( $L_{\rm ClO}$ ) at 25°C ambient temperature.

# INSTALLATION

- Easy installation: Plug & Play concept for simple and safe installation: pre-assembled 8 m connecting cable means that the luminaire does not have to be opened for installation.
- **Straightforward:** Tool-free maintenance / replacement by Eccentric-Lock system and Hybrid-Lock-System.
- Flexible: Adjustable and lockable in 5° steps.
- Smart Lighting: Versions with Zhaga Book 18 / NEMA sockets available for the integration of components for light management systems or sensors.







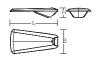
# Outdoor luminaires and pole top luminaires | MINGATA mini

Type of protection: IP 66 Protection class: II Impact protection: IK08

 $\label{prop:local_equation} \mbox{Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated.}$ Pole-top fixing with integrated cable routing and stainless steel screws. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass. With membrane valve as a standard to avoid condensed water. Tool-free maintenance / replacement by Eccentric-Lock system with disconnect plug and Hybrid-Lock-System, Light distribution optimised for road or area lighting. DALI control gear with integrated surge protection up to 10 kV. Constant light output (CLO). Converter compatible with DC. With NFC programming interface.  $4 \times 1.0 \; \text{mm}^2$  connecting cable included, length 8 m. Other lengths on request.

Colour temperature 2200 K and 2700 K available on request.

Available colours (X): 31 = anthracite, 4 = silver



LED vs. conventional lamps
LED 15 W ≈
1 x 35 W HIT (43 W Psys)
1 x 50 W HIT (56 W Psys)
LED 45 W ≈
1 x 70 W HIT (84 W Psys)

Reference	Dimensions	Light	Luminous	System	System	Lighting
number	[mm]	colour	flux [lm]	power [W]	efficiency* [lm/W]	control
Luminaires for spig	ot Ø 42 mm		lii.i.i	[**]	[110.44]	Price Category 12
Asymmetrical linear	r light distribution for stree	ts and paths	s according to DIN	N EN 13201		
612191.00X.76	L 530, B 270, H 100	730	2000	15	133	DALI
612191.00X.1.76	L 530, B 270, H 100	740	2000	15	133	DALI
612192.00X.76	L 530, B 270, H 100	730	4000	28	143	DALI
612192.00X.1.76	L 530, B 270, H 100	740	4000	28	143	DALI
612193.00X.76	L 530, B 270, H 100	730	6000	45	133	DALI
612193.00X.1.76	L 530, B 270, H 100	740	6000	45	133	DALI
Asymmetrical narro	w beam light distribution	for area light	ting (e.g. parking l	ots, loading zone	es)	
612194.00X.76	L 530, B 270, H 100	730	2000	15	133	DALI
612194.00X.1.76	L 530, B 270, H 100	740	2000	15	133	DALI
612195.00X.76	L 530, B 270, H 100	730	4000	28	143	DALI
612195.00X.1.76	L 530, B 270, H 100	740	4000	28	143	DALI
612196.00X.76	L 530, B 270, H 100	730	6000	45	133	DALI
612196.00X.1.76	L 530, B 270, H 100	740	6000	45	133	DALI
Luminaires for spig	ot Ø 76 mm					Price Category 12
Asymmetrical linear	r light distribution for stree	ts and path	s according to DIN	N EN 13201		

Luminaires for spig	ot Ø 76 mm					Price Cate	gory 12
Asymmetrical linea	r light distribution for stree	ts and path	ns according to E	IN EN 13201			
612171.00X.76	L 530, B 270, H 100	730	2000	15	133	DALI	
612171.00X.1.76	L 530, B 270, H 100	740	2000	15	133	DALI	
612174.00X.76	L 530, B 270, H 100	730	4000	28	143	DALI	
612174.00X.1.76	L 530, B 270, H 100	740	4000	28	143	DALI	
612177.00X.76	L 530, B 270, H 100	730	6000	45	133	DALI	
612177.00X.1.76	L 530, B 270, H 100	740	6000	45	133	DALI	
Asymmetrical narro	w beam light distribution	for area ligh	nting (e.g. parking	g lots, loading zo	nes)		
612172.00X.76	L 530, B 270, H 100	730	2000	15	133	DALI	
612172.00X.1.76	L 530, B 270, H 100	740	2000	15	133	DALI	
612175.00X.76	L 530, B 270, H 100	730	4000	28	143	DALI	
612175.00X.1.76	L 530, B 270, H 100	740	4000	28	143	DALI	
612178.00X.76	L 530, B 270, H 100	730	6000	45	133	DALI	
612178.00X.1.76	L 530, B 270, H 100	740	6000	45	133	DAL	



Accessories | Multiple brackets
Pole bracket for side mounting, hot-dip galvanized steel. For spigot diameter Ø 76 mm. Bracket arm length 500 mm, Ø 60 mm.

Please order reducer adapter separately for installation the luminaire on the bracket!

Multiple brackets			Price Category 12
982588.000	L 1015, B 90, H 250	Pole bracket for 2 luminaires, uncoated	
982589.000	L 894, B 787, H 250	Pole bracket for 3 luminaires, uncoated	
982590.000	L 1015, B 1015, H 250	Pole bracket for 4 luminaires, uncoated	



Reducing adapters			Price Category 12
982562.000	L 43, B 76, H 95	For reducing Ø 76 mm spigot size to Ø 60 mm	



### Accessories | Wall bracket

Wall bracket made of hot-dip galvanized steel. Bracket arm length 215 mm, Ø 76 mm, 75 ° vertically inclined.

Wall bracket			Price Category 12
982591.000	L 215, B 150, H 150	Wall bracket, uncoated	
982591.00X	L 215, B 150, H 150	Wall bracket, powder-coated	



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• .			<u> </u>
Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	



Reference

### Outdoor luminaires and pole top luminaires | MINGATA mini - Zhaga socket

Type of protection: **IP 66**Protection class: II
Impact protection: **I**K08

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Pole-top fixing with integrated cable routing and stainless steel screws. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass. With membrane valve as a standard to avoid condensed water. Tool-free maintenance / replacement by Eccentric-Lock system with disconnect plug and Hybrid-Lock-System. Light distribution optimised for road or area lighting. DALI control gear with integrated surge protection up to 10 kV. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. 4 x 1.0 mm² connecting cable included, length 8 m. Other lengths on request.

Colour temperature 2200 K and 2700 K available on request.

Available colours (X): 31 = anthracite, 4 = silver

Dimensions

The integrated Zhaga base allows sensors and light management systems to be retrofitted without the need for tools.

Light

number	[mm]	colour	flux [Im]	power [W]	efficiency* [lm/W]	control
Luminaires for spige	ot Ø 76 mm - with Zhaga s	ocket (Book	(18) on top			Price Category 12
Asymmetrical linear	light distribution for stree	ts and paths	according to	DIN EN 13201		
612171.00X.Z1	L 530, B 270, H 100	730	2000	15	133	DALI Zhaga
612171.00X.1.Z1	L 530, B 270, H 100	740	2000	15	133	DALI Zhaga
612174.00X.Z1	L 530, B 270, H 100	730	4000	28	143	DALI Zhaga
612174.00X.1.Z1	L 530, B 270, H 100	740	4000	28	143	DALI Zhaga
612177.00X.Z1	L 530, B 270, H 100	730	6000	45	133	DALI Zhaga
612177.00X.1.Z1	L 530, B 270, H 100	740	6000	45	133	DAL <b>I</b> Zhaga
Asymmetrical narro	w beam light distribution f	or area light	ing (e.g. parki	ing lots, loading zones	·)	
612172.00X.Z1	L 530, B 270, H 100	730	2000	15	133	DALI Zhaga
612172.00X.1.Z1	L 530, B 270, H 100	740	2000	15	133	DAL <b>I</b> Zhaga
612175.00X.Z1	L 530, B 270, H 100	730	4000	28	143	DAL <b>I</b> Zhaga
612175.00X.1.Z1	L 530, B 270, H 100	740	4000	28	143	DALI Zhaga
612178.00X.Z1	L 530, B 270, H 100	730	6000	45	133	DAL <b>i</b> Zhaga
612178.00X.1.Z1	L 530, B 270, H 100	740	6000	45	133	DALI Zhaga
	ot Ø 76 mm - with Zhaga s					Price Category 12
•	r light distribution for stree	ts and paths	•			
612171.00X.Z2	L 530, B 270, H 100	730	2000	15	133	DALI Zhaga
612171.00X.1.Z2	L 530, B 270, H 100	740	2000	15	133	DAL <b>I</b> Zhaga
612174.00X.Z2	L 530, B 270, H 100	730	4000	28	143	DALI Zhaga
612174.00X.1.Z2	L 530, B 270, H 100	740	4000	28	143	DALI Zhaga
612177.00X.Z2	L 530, B 270, H 100	730	6000	45	133	DALI Zhaga
612177.00X.1.Z2	L 530, B 270, H 100	740	6000	45	133	DALI Zhaga
Asymmetrical narro	w beam light distribution t	or area light	ing (e.g. parki	ing lots, loading zones	:)	
612172.00X.Z2	L 530, B 270, H 100	730	2000	15	133	DALI Zhaga
612172.00X.1.Z2	L 530, B 270, H 100	740	2000	15	133	DALI Zhaga
612175.00X.Z2	L 530, B 270, H 100	730	4000	28	143	DAL <b>I</b> Zhaga
612175.00X.1.Z2	L 530, B 270, H 100	740	4000	28	143	DAL <b>I</b> Zhaga
612178.00X.Z2	L 530, B 270, H 100	730	6000	45	133	DAL <b>I</b> Zhaga
612178.00X.1.Z2	L 530, B 270, H 100	740	6000	45	133	DALI Zhaga

Luminous

System

System



Lighting



Comparison LED vs. conventional lamps

LED 15 W  $\approx$ 

1 x 35 W HIT (43 W Psys)

LED 28 W ≈

1 x 50 W HIT (56 W Psys)

LED 45 W ≈

1 x 70 W HIT (84 W Psys)









LED vs. conventional lamps

1 x 100 W HIT (106 W Psys)

1 x 150 W HIT (160 W Psys)

2 x 100 W HIT (212 W Psys)

Comparison

LED 51 W≈

LED 66 W ≈

LED 84 W ≈

### Outdoor luminaires and pole top luminaires | MINGATA midi

Type of protection: IP 66 Protection class: II Impact protection: IK08

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Pole-top fixing with integrated cable routing and stainless steel screws. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, With membrane valve as a standard to avoid condensed water. Tool-free maintenance / replacement by Eccentric-Lock system with disconnect plug and Hybrid-Lock-System, Light distribution optimised for road or area lighting. DALI control gear with integrated surge protection up to 10 kV. Constant light output (CLO). Converter compatible with DC. With NFC programming interface, 4 x 1.0 mm<sup>2</sup> connecting cable included, length 8 m. Other lengths on request.

Colour temperature 2200 K and 2700 K available on request.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Luminaires for spige						Price Category 12
-	light distribution for stree	-	_			
612200.00X.76	L 700, B 340, H 100	730	8000	51	157	DALI
612200.00X.1.76	L 700, B 340, H 100	740	8000	51	157	DALI
612201.00X.76	L 700, B 340, H 100	730	10000	66	152	DALI
612201.00X.1.76	L 700, B 340, H 100	740	10000	66	152	DALI
612202.00X.76	L 700, B 340, H 100	730	12000	84	143	DALI
612202.00X.1.76	L 700, B 340, H 100	740	12000	84	143	DALI
Asymmetrical narro	w beam light distribution t	or area light	ting (e.g. parking l	lots, loading zone	es)	
612203.00X.76	L 700, B 340, H 100	730	8000	51	157	DALI
612203.00X.1.76	L 700, B 340, H 100	740	8000	51	157	DALI
612204.00X.76	L 700, B 340, H 100	730	10000	66	152	DALI
612204.00X.1.76	L 700, B 340, H 100	740	10000	66	152	DALI
612205.00X.76	L 700, B 340, H 100	730	12000	84	143	DALI
612205.00X.1.76	L 700, B 340, H 100	740	12000	84	143	DALI
Luminaires for spige	ot Ø 76 mm					Price Category 12
•	light distribution for stree		•			
612180.00X.76	L 700, B 340, H 100	730	8000	51	157	DAL
612180.00X.1.76	L 700, B 340, H 100	740	8000	51	157	DALI
612183.00X.76	L 700, B 340, H 100	730	10000	66	152	DALI
612183.00X.1.76	L 700, B 340, H 100	740	10000	66	152	DALI
612186.00X.76	L 700, B 340, H 100	730	12000	84	143	DALI
612186.00X.1.76	L 700, B 340, H 100	740	12000	84	143	DALI
Asymmetrical narro	w beam light distribution t	or area light	ting (e.g. parking l	lots, loading zone	es)	
612181.00X.76	L 700, B 340, H 100	730	8000	51	157	DALI
612181.00X.1.76	L 700, B 340, H 100	740	8000	51	157	DALI



612184.00X.76

612187.00X.76

612187.00X.1.76

612184.00X.1.76

Accessories | Multiple brackets
Pole bracket for side mounting, hot-dip galvanized steel. For spigot diameter Ø 76 mm. Bracket arm length 500 mm, Ø 60 mm.

10000

10000

12000

12000

730

740

730

66

66

84

84

DALI

DALI

DAL

DAL

152

152

143

143

Please order reducer adapter separately for installation the luminaire on the bracket!

L 700, B 340, H 100

Multiple brackets			Price Category 12
982588.000	L 1015, B 90, H 250	Pole bracket for 2 luminaires, uncoated	
982589.000	L 894, B 787, H 250	Pole bracket for 3 luminaires, uncoated	
982590.000	L 1015, B 1015, H 250	Pole bracket for 4 luminaires, uncoated	



Reducing adapters			Price Category 12
982562.000	L 43, B 76, H 95	For reducing Ø 76 mm spigot size to Ø 60 mm	



### Accessories | Wall bracket

Wall bracket made of hot-dip galvanized steel. Bracket arm length 215 mm, Ø 76 mm, 75 ° vertically inclined.

Wall bracket			Price Category 12
982591.000	L 215, B 150, H 150	Wall bracket, uncoated	
982591.00X	L 215, B 150, H 150	Wall bracket, powder-coated	



### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm<sup>2</sup>. One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	



Reference

### Outdoor luminaires and pole top luminaires | MINGATA midi - Zhaga socket

Type of protection: **IP 66**Protection class: II
Impact protection: **I**K08

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Pole-top fixing with integrated cable routing and stainless steel screws. Tilt angle can be adjusted and locked in 5 degree steps featuring angular scale. Cover clear single-pane toughened glass, With membrane valve as a standard to avoid condensed water. Tool-free maintenance / replacement by Eccentric-Lock system with disconnect plug and Hybrid-Lock-System, Light distribution optimised for road or area lighting. DALI control gear with integrated surge protection up to 10 kV. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. 4 x 1.0 mm² connecting cable included, length 8 m. Other lengths on request.

Colour temperature 2200 K and 2700 K available on request.

Available colours (X): 31 = anthracite, 4 = silver

Dimensions

The integrated Zhaga base allows sensors and light management systems to be retrofitted without the need for tools.

Light

number	[mm]	colour	flux [lm]	power [W]	efficiency* [lm/W]	control
Luminaires for spig	ot Ø 76 mm - with Zhaga s	ocket (Book	( 18) on top			Price Category 12
Asymmetrical linear	r light distribution for stree	ts and paths	s according to D	IN EN 13201		
612180.00X.Z1	L 700, B 340, H 100	730	8000	51	157	DALI Zhaga
612180.00X.1.Z1	L 700, B 340, H 100	740	8000	51	157	DALI Zhaga
612183.00X.Z1	L 700, B 340, H 100	730	10000	66	152	DALI Zhaga
612183.00X.1.Z1	L 700, B 340, H 100	740	10000	66	152	DAL <b>I</b> Zhaga
612186.00X.Z1	L 700, B 340, H 100	730	12000	84	143	DALI Zhaga
612186.00X.1.Z1	L 700, B 340, H 100	740	12000	84	143	DAL <b>I</b> Zhaga
Asymmetrical narro	w beam light distribution f	or area light	ing (e.g. parking	lots, loading zone	s)	
612181.00X.Z1	L 700, B 340, H 100	730	8000	51	157	DAL <b>I</b> Zhaga
612181.00X.1.Z1	L 700, B 340, H 100	740	8000	51	157	DAL <b>i</b> Zhaga
612184.00X.Z1	L 700, B 340, H 100	730	10000	66	152	DAL <b>I</b> Zhaga
612184.00X.1.Z1	L 700, B 340, H 100	740	10000	66	152	DAL <b>I</b> Zhaga
612187.00X.Z1	L 700, B 340, H 100	730	12000	84	143	DAL <b>I</b> Zhaga
612187.00X.1.Z1	L 700, B 340, H 100	740	12000	84	143	DAL <b>I</b> Zhaga
	ot Ø 76 mm - with Zhaga s					Price Category 12
•	r light distribution for stree	•	-			
612180.00X.Z2	L 700, B 340, H 100	730	8000	51	157	DALI Zhaga
612180.00X.1.Z2	L 700, B 340, H 100	740	8000	51	157	DAL <b>i</b> Zhaga
612183.00X.Z2	L 700, B 340, H 100	730	10000	66	152	DAL <b>i</b> Zhaga
612183.00X.1.Z2	L 700, B 340, H 100	740	10000	66	152	DAL <b>i</b> Zhaga
612186.00X.Z2	L 700, B 340, H 100	730	12000	84	143	DAL <b>I</b> Zhaga
612186.00X.1.Z2	L 700, B 340, H 100	740	12000	84	143	DAL <b>i</b> Zhaga
Asymmetrical narro	ow beam light distribution f	•		lots, loading zone	*	
612181.00X.Z2	L 700, B 340, H 100	730	8000	51	157	DAL <b>i</b> Zhaga
612181.00X.1.Z2	L 700, B 340, H 100	740	8000	51	157	DAL <b>i</b> Zhaga
612184.00X.Z2	L 700, B 340, H 100	730	10000	66	152	DAL <b>I</b> Zhaga
612184.00X.1.Z2	L 700, B 340, H 100	740	10000	66	152	DAL <b>i</b> Zhaga
612187.00X.Z2	L 700, B 340, H 100	730	12000	84	143	DAL <b>i</b> Zhaga
612187.00X.1.Z2	L 700, B 340, H 100	740	12000	84	143	DAL <b>I</b> Zhaga

Luminous

System

System

Lighting

Adapter sleeve available for pole top Ø 60 mm





Comparison LED vs. conventional lamps

LED 51 W ≈

1 x 100 W HIT (106 W Psys)

LED 66 W ≈

1 x 150 W HIT (160 W Psys)

LED 84 W ≈

2 x 100 W HIT (212 W Psys)







## LIGHTSTREAM

Spotlights

#### ARCHITECTURE

- Robust: Seawater resistant coating.
- Long service life: Sturdy housing made of corrosion resistant pressure die cast aluminium, powder coated, with stainless steel screws.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

#### LIGHTING DESIGN

- Efficient: Asymmetrical reflector of MIRO-SILVER® with reflex-boosted coating.
- Variable: Tilt angle can be adjusted and locked in 6° steps with precise angular scale.
- Dark Sky: Protects insects and the environment. Avoiding light pollution.

#### INSTALLATION

- Easy installation: Quick connection possible without opening the housing by screw-less plug connector on bayonet locked slide.
- **Standard:** Gore™ Protective Vents diaphragm valve to avoid condensation.
- Advantageous: Extensive installation accessories for any application scenarios.



#### Spotlights | LIGHTSTREAM mini

Type of protection: IP 65 Protection class: I Impact protection: IK04

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Bracket: aluminium, powder-coated. Tilt angle can be adjusted with angular scale. Toughened glass cover, COB-LED with socket for change on site, Asymmetrical area flood reflector of MIRO-SILVER® with reflex-boosted coating. With membrane valve as a standard to avoid condensed water. Quick connection possible without opening the housing by screw-less plug  $\,$ connector on bayonet locked slide. Piano-key terminal up to 5 x 2,5 mm<sup>2</sup>, max cable Ø 13 mm. Windage area  $A_w = 0.023 \text{ m}^2$ .

Accessories must be ordered separately.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	Lighting control	
Area floodlight							Price Category 12
Asymmetrical light of	distribution						
722143.11X	L 315, B 276, H 180	830	1800	14	129	on/off	
722143.11X.1	L 315, B 276, H 180	840	1850	14	132	on/off	
722144.11X	L 315, B 276, H 180	830	3200	25	128	on/off	
722144.11X.1	L 315, B 276, H 180	840	3300	25	132	on/off	
721719.1131	L 315, B 276, H 180	830	6050	54	112	on/off	
721719.114 .Q	L 315, B 276, H 180	830	6050	54	112	on/off	
721719.11X.76	L 315, B 276, H 180	830	6050	54	112	DALI	
721719.11X.1	L 315, B 276, H 180	840	6200	54	115	on/off	
721719.11X.1.76	L 315, B 276, H 180	840	6200	54	115	DALI	





Comparison LED vs. conventional lamps

LED 14 W ≈

1 x 35 W HIT (43 W Psys)

LED 25 W ≈

1 x 50 W HIT (56 W Psys)

LED 54 W ≈

1 x 70 W HIT-CE (80 W Psys)

#### Accessories

Wall arm for wall mounting. Made of stainless steel, blasted or powder coated finish. Option of top or lateral mounting at frontal bracket. Hidden cabling inside tubular profile with additional inlet at wall mounting plate.

Wall bracket			Price Category 12
982058.000	L 500, B 180, H 180	Overall lenght 500 mm, uncoated	
982058.0031	L 500, B 180, H 180	Overall lenght 500 mm, anthracite	
982086.000	L 1000, B 180, H 180	Overall lenght 1000 mm, uncoated	
982086.0031	L 1000, B 180, H 180	Overall lenght 1000 mm, anthracite	



Pole attachment for installation on the pole top. Steel, hot-dip galvanised, unpainted or powder coated. Set of stainless steel fixing screws included. Cable gland into the pole as strain-relief and protection against rainwater.

Pole tops			Price Category 12
Pole top fixings,	single		
982047.000	L 250, B 95, H 153	for spigot 60 mm, uncoated	
982047.00X	L 250, B 95, H 153	for spigot 60 mm, powder-coated	
982048.000	L 250, B 95, H 153	for spigot 76 mm, uncoated	
982048.00X	L 250, B 95, H 153	for spigot 76 mm, powder-coated	
Pole top fixings	opposite mounting		
982049.000	L 250, B 114, H 153	for spigot 60 mm, uncoated	
982049.00X	L 250, B 114, H 153	for spigot 60 mm, powder-coated	
982050.000	L 250, B 114, H 153	for spigot 76 mm, uncoated	
982050.00X	L 250, B 114, H 153	for spigot 76 mm, powder-coated	



Accessories | Pole clip
Mounting bracket for lateral attachment along the pole. Stainless steel bracket with galvanised srews. Smooth span width for different mounting heights. Installation of the luminaire only possible with mounting bracket.

Pole clip			Price Category 12
982092.000	L 178, B 174, H 38	for pole diameter 95 - 114 mm, uncoated	
982093.000	L 178, B 194, H 38	for pole diameter 115 - 135 mm, uncoated	



Powder coating on request.

Adapter plate set for mounting from several spotlights on a double pole attachment, stainless steel, powder coated. With IP 66 junction box and additional fixing screws. The double pole attachment for a matching top dimension must be ordered separately.

Adapter set for p	ole attachments		Price Category 11
982524.00X	L 395, B 395, H 120	Adapter set for 4-fold configuration (4 x 90°)	



Junction box H v	Price Category 11		
982638.003	L 78, B 53, H 28	Max. $4 \times 1.5$ mm <sup>2</sup> and cable diameter Ø 0.75 - 12 mm. $1 \times \ln / 3 \times \text{Out}$ , including 1 blind plug.	





#### Spotlights | LIGHTSTREAM midi

Type of protection: IP 65 Protection class: I Impact protection: IK05

Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Bracket: aluminium, powder-coated. Tilt angle can be adjusted with angular scale. Toughened glass cover, COB-LED with socket for change on site, Asymmetrical area flood reflector of MIRO-SILVER® with reflex-boosted coating. With membrane valve as a standard to avoid condensed water. Quick connection possible without opening the housing by screw-less plug connector on bayonet locked slide. Piano-key terminal up to  $5 \times 2,5 \text{ mm}^2$ , max cable Ø 13 mm. Windage area  $A_w = 0.036 \text{ m}^2$ .

Accessories must be ordered separately.

Available colours (X): 31 = anthracite, 4 = silver



### Comparison LED vs. conventional lamps LED 114 W ≈

1 x 150 W HIT (160 W Psys) 1 x 750 W QT-DE (750 W Psys)

1

	Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [Im/W]	Lighting control	
	Area floodlight							Price Category 12
	Asymmetrical light of	listribution						
	721720.11X	L 382, B 330, H 215	830	12200	114	107	on/off	
_	721720.11X.76	L 382, B 330, H 215	830	12200	114	107	DALI	
	721720.11X.1	L 382, B 330, H 215	840	12400	114	109	on/off	
	721720.11X.1.76	L 382, B 330, H 215	840	12400	114	109	DALI	



Pole attachment for installation on the pole top. Steel, hot-dip galvanised, unpainted or powder coated. Set of stainless steel fixing screws included. Cable gland into the pole as strain-relief and protection against rainwater.

Pole tops			Price Category 12
Pole top fixings,	single		
982047.000	L 250, B 95, H 153	for spigot 60 mm, uncoated	
982047.00X	L 250, B 95, H 153	for spigot 60 mm, powder-coated	
982048.000	L 250, B 95, H 153	for spigot 76 mm, uncoated	
982048.00X	L 250, B 95, H 153	for spigot 76 mm, powder-coated	
Pole top fixings	opposite mounting		
982049.000	L 250, B 114, H 153	for spigot 60 mm, uncoated	
982049.00X	L 250, B 114, H 153	for spigot 60 mm, powder-coated	
982050.000	L 250, B 114, H 153	for spigot 76 mm, uncoated	
982050.00X	L 250, B 114, H 153	for spigot 76 mm, powder-coated	



Accessories | Pole clip
Mounting bracket for lateral attachment along the pole. Stainless steel bracket with galvanised srews. Smooth span width for different mounting heights. Installation of the luminaire only possible with mounting bracket.

Pole clip			Price Category 12
982092.000	L 178, B 174, H 38	for pole diameter 95 - 114 mm, uncoated	
982093.000	L 178, B 194, H 38	for pole diameter 115 - 135 mm, uncoated	

Powder coating on request.



#### Accessories

Adapter plate set for mounting from several spotlights on a double pole attachment, stainless steel, powder coated. With IP 66 junction box and additional fixing screws. The double pole attachment for a matching top dimension must be ordered separately.

Adapter set for p	oole attachments		Price Category 11
982524.00X	L 395, B 395, H 120	Adapter set for 4-fold configuration (4 x 90°)	



lunction box H with strain relief		

Junction box H v	vith strain relief		Price Category 11
982638.003	L 78, B 53, H 28	Max. $4 \times 1.5$ mm <sup>2</sup> and cable diameter Ø 0.75 - 12 mm. $1 \times \ln / 3 \times \text{Out}$ , including 1 blind plug.	







#### Spotlights | LIGHTSTREAM maxi

Type of protection: IP 65 Protection class: I Impact protection: IK08

Housing made of corrosion-resistant die-cast aluminium for outdoor use, powder-coated. Stainless steel bracket, powder coated, suitable for pole mounting. Tilt angle can be adjusted and locked in 6° steps with precise angular scale. Thermally decoupled driver compartment, Toughened glass cover, COB LED with socket for easy replacement. Asymmetrical area flood reflector of MIRO-SILVER® with reflex-boosted coating. Standard Gore™ Protective Vents diaphragm valve to avoid condensation. Piano-key terminal up to 5 x 2,5 mm<sup>2</sup>, max cable Ø 13 mm. Wind-exposed area  $A_w = 0.052 \text{ m}^2$ .

Accessories must be ordered separately.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control	
Area floodlight							Price Category 12
Asymmetrical light	distribution						
721734.11X	L 509, B 374, H 174	830	13400	110	122	on/off	
721734.11X.76	L 509, B 374, H 174	830	13400	110	122	DALI	
721734.11X.1	L 509, B 374, H 174	840	13900	110	126	on/off	
721734.11X.1.76	L 509, B 374, H 174	840	13900	110	126	DAL	
721725.11X	L 509, B 374, H 174	830	26600	221	120	on/off	
721725.11X.76	L 509, B 374, H 174	830	26600	221	120	DAL	
721725.11X.1	L 509, B 374, H 174	840	27900	221	126	on/off	
721725.11X.1.76	L 509, B 374, H 174	840	27900	221	126	DALI	
722145.11X	L 509, B 374, H 174	830	30600	314	97	on/off	
722145.11X.76	L 509, B 374, H 174	830	30600	314	97	DALI	
722145.11X.1	L 509, B 374, H 174	840	32100	314	102	on/off	
722145.11X.1.76	L 509, B 374, H 174	840	32100	314	102	DALI	





### Comparison

LED vs. conventional lamps

#### LED 110 W ≈

1 x 150 W HIT-CE (170 W Psys) 1 x 750 W QT-DE (750 W Psys)

#### LED 221 W ≈

2 x 150 W HIT-CE (320 W Psys)

#### LED 314 W ≈

1 x 400 W HIE (440 W Psys)

#### Accessories

Pole attachment for installation on the pole top. Steel, hot-dip galvanised, unpainted or powder coated. Set of stainless steel fixing screws included. Cable gland into the pole as strain-relief and protection against rainwater.

Pole tops			Price Category 12
Pole top fixings,	single		
982045.000	L 346, B 97, H 154	for spigot 60 mm, uncoated	
982045.00X	L 346, B 97, H 154	for spigot 60 mm, powder-coated	
982002.000	L 346, B 97, H 154	for spigot 76 mm, uncoated	
982002.00X	L 346, B 97, H 154	for spigot 76 mm, powder-coated	
982046.000	L 346, B 110, H 204	for spigot 89 mm, uncoated	
982046.00X	L 346, B 110, H 204	for spigot 89 mm, powder-coated	
Pole top fixings of	opposite mounting		
982059.000	L 346, B 112, H 154	for spigot 60 mm, uncoated	
982059.00X	L 346, B 112, H 154	for spigot 60 mm, powder-coated	
982003.000	L 346, B 112, H 154	for spigot 76 mm, uncoated	
982003.00X	L 346, B 112, H 154	for spigot 76 mm, powder-coated	
982004.000	L 346, B 136, H 204	for spigot 89 mm, uncoated	
982004.00X	L 346, B 136, H 204	for spigot 89 mm, powder-coated	
982005.000	L 346, B 136, H 204	for spigot 108 mm, uncoated	
982005.00X	L 346, B 136, H 204	for spigot 108 mm, powder-coated	



#### Accessories | Pole clip

Mounting bracket for lateral attachment along the pole. Stainless steel bracket with galvanised srews. Smooth span width for different mounting heights. Installation of the luminaire only possible with mounting bracket.

Pole clip			Price Category 12
982478.00X	L 346, B 235, H 90	for pole diameter 95 - 140 mm, powder-coated	



Adapter plate set for mounting from several spotlights on a double pole attachment, stainless steel, powder coated. With IP 66 junction box and additional fixing screws. The double pole attachment for a matching top dimension must be ordered separately.

Adapter set for p	oole attachments		Price Category 12
982525.00X	L 460, B 410, H 55	Adapter set for 4-fold configuration (4 x 90°)	
982401.00X	L 525, B 381, H 87	Adapter set for 3-fold configuration (3 x 120°)	
982475.00X	L 622, B 284, H 55	Adapter set for 2-fold configuration (2 x 90°)	



Exchange Brackets for alternative mounting method.			Price Category 12
982053.00X	L 346, B 152, H 210	Bracket for socket and wall mounting	



Junction box H with strain relief Price Category 11 982638.003 L 78, B 53, H 28 Max. 4 x 1.5 mm<sup>2</sup> and cable diameter Ø 0.75 - 12 mm.  $1 \times \ln / 3 \times \text{Out}$ , including 1 blind plug.





## **ANDHO**

Outdoor luminaires and pole top luminaires

#### ARCHITECTURE

- **Design-oriented:** Cylindrical shape with no visible cooling fins.
- Long service life: Robust outdoor operation ensured by use of high quality material like powder coated, corrosion-resistant pressure die-cast aluminium, toughened glass and stainless steel.
- Robust: Seawater resistant coating.

#### LIGHTING DESIGN

- Advantageous: Reflectors made of reflex boosted MIRO-SILVER® with choice of four beam angles for ultimate flexibility in application.
- Flexible: Rotation angle: 360° stepless, tilt angle 90° in increments of 5°, angle scale can be adjusted and locked.

#### INSTALLATION

- Easy installation: Easy installation on the pole with only one hole for cable entry and fastening.
- **Standard:** With membrane valve to avoid condensation.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.







Further luminaires of this series, see:

Outdoor lighting | Ceiling and wall luminaires

Outdoor lighting | Projectors and floodlights







#### Comparison LED vs. conventional lamps

LED 23 W ≈

1 x 20 W HIT (23 W Psys)

LED 27 W ≈

1 x 35 W HIT (43 W Psys)

#### Outdoor luminaires and pole top luminaires | ANDHO mini

Type of protection: IP 65

Protection class: II



Available colours (X): 2 = white, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> a [°]	Lighting control
Surface mounted p	rojector		. ,	. ,			Price Category 12
Spot lens							
722273.00X.2.76	D 114, H 182, AL 258	827	1700	23	74	10	DALI
722273.00X.76	D 114, H 182, AL 258	830	1800	23	78	10	DALI
722273.00X.1.76	D 114, H 182, AL 258	840	1900	23	83	10	DALI
Medium							
722274.00X.2.76	D 114, H 182, AL 258	827	3000	27	111	26	DALI
722274.00X.76	D 114, H 182, AL 258	830	3300	27	122	26	DALI
722274.00X.1.76	D 114, H 182, AL 258	840	3550	27	131	26	DALI
Flood							
722275.00X.2.76	D 114, H 182, AL 258	827	2800	27	104	40	DAL
722275.00X.76	D 114, H 182, AL 258	830	3100	27	115	40	DALI
722275.00X.1.76	D 114, H 182, AL 258	840	3350	27	124	40	DALI



Snap-on hood			Price Category 12
982165.003	L 140, B 120, H 130	Can be rotated 360 degrees stainless steel, powder coated, black	



Clear reeded glass	s with mounting attachr	ment	Price Category 12
982159.000	D 117, H 58	Elliptical beam angle.	



Louvre as push-o	on attachment		Price Category 12
982162.003	D 120, H 85	Can be rotated 360 degrees stainless steel, powder coated, black	



Barn door shutter with mounting attachment			Price Category 12
982168.003	L 266, B 266, H 31	Can be rotated 360 degrees stainless steel, powder coated, black	



#### Accessories | Fuse box

Housing: clastic, Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm². One D01 / E14 Fuse, 2 outgoing lines

nousing: plastic.	Contact protection in accordar	nce with vbG 4. Inpi	at for 3 capies 5 x 16 mms. One Do 17 E14 ruse, 2 outgoing lines.
Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	

Round clip with s	strain relief		Price Category 12
982974.003	D 23, L 89	Max. $5 \times 1.5 \text{ mm}^2$ and cable diameter Ø $5 - 12 \text{ mm}$ .	









#### Outdoor luminaires and pole top luminaires | ANDHO midi

Type of protection: **IP 65** Protection class: II

Housing made of corrosion-resistant die-cast aluminium with extension arm, seawater resistant powder-coated. Stainless steel screws. Spotlight with 8 m connecting cable. Pole mounting by means of 1 drilled hole Ø 24 mm (provided on site). Rotation angle: 360° stepless, tilt angle 90° in increments of 5°, angle scale can be adjusted and locked. Cover clear single-pane toughened glass. Rotation-symmetric reflector made of reflex-boosted MIRO-SILVER®. With membrane valve as a standard to avoid condensed water.

Available colours (X): 2 = white, 31 = anthracite, 4 = silver





Comparison LED vs. conventional lamps

LED 39 W ≈

1 x 50 W HIT (56 W Psys)

LED 41 W ≈

1 x 35 W HIT (43 W Psys)

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> a ["]	Lighting control
Surface mounted p	rojector						Price Category 12
Reflector spot							
722279.00X.2.76	D 154, H 216, AL 292	827	3450	41	84	9	DALI
722279.00X.76	D 154, H 216, AL 292	830	3750	41	91	9	DALI
722279.00X.1.76	D 154, H 216, AL 292	840	3950	41	96	9	DALI
Reflector medium							
722280.00X.2.76	D 154, H 216, AL 292	827	4700	39	121	17	DALI
722280.00X.76	D 154, H 216, AL 292	830	4850	39	124	17	DALI
722280.00X.1.76	D 154, H 216, AL 292	840	5350	39	137	17	DALI
Reflector flood							
722281.00X.2.76	D 154, H 216, AL 292	827	4700	39	121	34	DAL
722281.00X.76	D 154, H 216, AL 292	830	4850	39	124	34	DALI
722281.00X.1.76	D 154, H 216, AL 292	840	5150	39	132	34	DALI
Reflector wide floor	d						
722282.00X.2.76	D 154, H 216, AL 292	827	4700	39	121	59	DALI
722282.00X.76	D 154, H 216, AL 292	830	4800	39	123	59	DALI
722282.00X.1.76	D 154, H 216, AL 292	840	5100	39	131	59	DALI

Snap-on hood			Price Category 12
982166.003	D 160, H 170	Can be rotated 360 degrees stainless steel, powder coated, black	



Clear reeded glas	ss with mounting attachment		Price Category 12
982160.000	D 159, H 58	Elliptical beam angle.	



Louvre as push-o	n attachment		Price Category 12
982163.003	D 160, H 97	Can be rotated 360 degrees stainless steel, powder coated, black	



Barn door shutter with mounting attachment			Price Category 12	
982169.003	L 340, B 340, H 31	Can be rotated 360 degrees stainless steel, powder coated, black		



Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	



Round clip with strain relief			Price Category 12
982974.003	D 23. L 89	Max. 5 x 1.5 mm <sup>2</sup> and cable diameter Ø 5 - 12 mm.	









## GONIA®

Pole top luminaires

#### ARCHITECTURE

- Classical: The classically linear design supports applications in small scale surroundings.
- Long service life: Use of high quality material like powder coated, corrosionresistant aluminium, toughened glass and stainless steel.
- Protected: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

#### LIGHTING DESIGN

- Versatile: Comprehensive selection of light distributions and luminous flux enables universal application range starting with private pathways to main roads with public lighting.
- Dark Sky: Protects insects and the environment. Avoiding light pollution.
- **Standard:** Control gear with integrated surge protection up to 10 kV.

#### INSTALLATION

- Easy installation: Plug & play design with pre-assembled connecting cable for easy installation and small transport volume.
- **Easy to maintain:** Quick maintenance due to plug & play standard lighting inserts.
- Smart Lighting: Versions with Zhaga Book 18 sockets available for the integration of components for light management systems or sensors.
- **Configurable:** Different dim options are possible on request.



#### Pole top luminaires | GONIA

Type of protection: **IP 65**Protection class: II
Impact protection: IK07

Luminaire body aluminium, arm cast aluminium with integrated wiring and stainless steel threaded inserts (seawater resistant powder-coated). Pole attachment for 76 mm spigot. With stainless steel screws, Aluminium light insert with toughened glazing, powder coated, Twist-lock and plug connector for quick replacement. With membrane valve as a standard to avoid condensed water. Refractor optics with multichip LED. Light distribution optimised for road or area lighting. Control gear with integrated surge protection up to 10 kV. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. 4 x 1.0 mm² connecting cable included, length 5.5 m.

Available colours (X): 31 = anthracite, 4 = silver





Com	ıpar	rison	
LED	vs.	conventional	lamps

LED 24 W ≈

1 x 35 W HIT (43 W Psys)

LED 45 W ≈

1 x 50 W HIT (56 W Psys)

LED 65 W ≈

1 x 70 W HIT (80 W Psys)

LED 86 W ≈

1 x 100 W HIT (106 W Psys)

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Luminaires for sp	igot Ø 76 mm					Price Category 12
Asymmetrical line	ar light distribution for w	ide streets and	paths according	to DIN EN 13201		
611940.00X	D 500, H 525	730	1800	24	75	DALI
611940.00X.1	D 500, H 525	740	2100	24	88	DALI
611943.00X	D 500, H 525	730	3450	45	77	DALI
611943.00X.1	D 500, H 525	740	4050	45	90	DALI
611946.00X	D 500, H 525	730	5350	65	82	DALI
611946.00X.1	D 500, H 525	740	6200	65	95	DALI
611949.00X	D 500, H 525	730	7050	86	82	DALI
611949.00X.1	D 500, H 525	740	8200	86	95	DALI
Asymmetrical line	ar light distribution for n	arrow streets a	nd paths accordin	ig to D <b>I</b> N EN 1320	)1	
611941.00X	D 500, H 525	730	1800	24	75	DALI
611941.00X.1	D 500, H 525	740	2100	24	88	DALI
611944.00X	D 500, H 525	730	3450	45	77	DALI
611944.00X.1	D 500, H 525	740	4050	45	90	DALI
611947.00X	D 500, H 525	730	5300	65	82	DALI
611947.00X.1	D 500, H 525	740	6200	65	95	DALI
611950.00X	D 500, H 525	730	7050	86	82	DALI
611950.00X.1	D 500, H 525	740	8250	86	96	DALI
Asymmetrical nar	row beam light distributi	on on both side	s for area lighting	(e.g. squares, pa	rking lots)	
612207.00X	D 500, H 525	730	3600	45	80	DALI
612207.00X.1	D 500, H 525	740	4200	45	93	DALI
612208.00X	D 500, H 525	730	7300	86	85	DALI
612208.00X.1	D 500, H 525	740	8500	86	99	DALI
Asymmetrical sing	gle-sided narrow light dis	stribution for ar	ea lighting (e.g. so	quares, parking lo	ts)	
611942.00X	D 500, H 525	730	1850	24	77	DALI
611942.00X.1	D 500, H 525	740	2150	24	90	DALI
611945.00X	D 500, H 525	730	3600	45	80	DALI
611945.00X.1	D 500, H 525	740	4200	45	93	DALI
611948.00X	D 500, H 525	730	5550	65	85	DALI
611948.00X.1	D 500, H 525	740	6450	65	99	DALI
611951.00X	D 500, H 525	730	7300	86	85	DALI
611951.00X.1	D 500, H 525	740	8500	86	99	DALI

#### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm<sup>2</sup>. One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	

Reducing adapte	ers		Price Category 12
000406 000	D 77 H 00	For raduaing @ 76 mm epiget size to @ 60 mm	











# LARUTA®

Pole top luminaires

#### ARCHITECTURE

- **Design-oriented:** The elegant linear shape excellently suits modern architecture.
- Long service life: Use of high quality material like powder coated, corrosionresistant aluminium, toughened glass and stainless steel.
- Protected: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

#### LIGHTING DESIGN

- Versatile: Comprehensive selection of light distributions and luminous flux enables universal application range starting with private pathways to main roads with public lighting.
- **Dark Sky:** Protects insects and the environment. Avoiding light pollution.
- **Standard:** Control gear with integrated surge protection up to 10 kV.

#### INSTALLATION

- Easy installation: Plug & play design with pre-assembled connecting cable for easy installation and small transport volume.
- **Easy to maintain:** Quick maintenance due to plug & play standard lighting inserts.
- Smart Lighting: Versions with Zhaga Book 18 sockets available for the integration of components for light management systems or sensors.
- **Configurable:** Different dim options are possible on request.

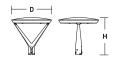


#### Pole top luminaires | LARUTA

Type of protection: **IP 65**Protection class: II
Impact protection: **I**K07

Luminaire body aluminium, arm cast aluminium with integrated wiring and stainless steel threaded inserts (seawater resistant powder-coated). Pole attachment for 76 mm spigot. With stainless steel screws, Aluminium light insert with toughened glazing, powder coated, Twist-lock and plug connector for quick replacement. With membrane valve as a standard to avoid condensed water, Refractor optics with multichip LED, Light distribution optimised for road or area lighting. Control gear with integrated surge protection up to 10 kV. Constant light output (CLO), Converter compatible with DC, With NFC programming interface, 4 x 1.0 mm² connecting cable included, length 5.5 m.

Available colours (X): 31 = anthracite, 4 = silver





Comparison LED vs. conventional lamps

LED 24 W ≈

1 x 35 W HIT (43 W Psys)

LED 45 W ≈

1 x 50 W HIT (56 W Psys)

LED 65 W ≈

1 x 70 W HIT (80 W Psys)

LED 86 W ≈

1 x 100 W HIT (106 W Psys)

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Luminaires for sp	igot Ø 76 mm					Price Category 12
Asymmetrical line	ar light distribution for w	ide streets and	paths according	to DIN EN 13201		
611952.00X	D 650, H 610	730	1750	24	73	DALI
611952.00X.1	D 650, H 610	740	2050	24	85	DALI
611955.00X	D 650, H 610	730	3400	45	76	DALI
611955.00X.1	D 650, H 610	740	3950	45	88	DALI
611958.00X	D 650, H 610	730	5200	65	80	DALI
611958.00X.1	D 650, H 610	740	6050	65	93	DALI
611961.00X	D 650, H 610	730	6900	86	80	DALI
611961.00X.1	D 650, H 610	740	8000	86	93	DALI
Asymmetrical line	ar light distribution for n	arrow streets a	nd paths accordin	ig to D <b>I</b> N EN 1320	)1	
611953.00X	D 650, H 610	730	1750	24	73	DALI
611953.00X.1	D 650, H 610	740	2050	24	85	DAL
611956.00X	D 650, H 610	730	3400	45	76	DALI
611956.00X.1	D 650, H 610	740	3950	45	88	DALI
611959.00X	D 650, H 610	730	5250	65	81	DALI
611959.00X.1	D 650, H 610	740	6100	65	94	DALI
611962.00X	D 650, H 610	730	6950	86	81	DALI
611962.00X.1	D 650, H 610	740	8050	86	94	DALI
Asymmetrical nar	row beam light distributi	on on both side	s for area lighting	(e.g. squares, pa	rking lots)	
612209.00X	D 650, H 610	730	3600	45	80	DAL
612209.00X.1	D 650, H 610	740	4200	45	93	DALI
612210.00X	D 650, H 610	730	7200	86	84	DALI
612210.00X.1	D 650, H 610	740	8400	86	98	DALI
Asymmetrical sing	gle-sided narrow light dis	stribution for ar	ea lighting (e.g. so	quares, parking lo	ts)	
611954.00X	D 650, H 610	730	1850	24	77	DALI
611954.00X.1	D 650, H 610	740	2150	24	90	DALI
611957.00X	D 650, H 610	730	3600	45	80	DALI
611957.00X.1	D 650, H 610	740	4200	45	93	DALI
611960.00X	D 650, H 610	730	5500	65	85	DALI
611960.00X.1	D 650, H 610	740	6400	65	98	DALI
611963.00X	D 650, H 610	730	7200	86	84	DALI
611963.00X.1	D 650, H 610	740	8400	86	98	DALI

Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm<sup>2</sup>. One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	

Reducing adapte	ers		Price Category 12
000406 000	D 77 H 00	For raduaing @ 76 mm epiget size to @ 60 mm	











## **BOCARO®**

Light stack

#### ARCHITECTURE

- Versatile: Light column for public places such as pedestrian areas, squares, bridges, parks and car parks.
- Robust: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

#### LIGHTING DESIGN

- Advantageous: Multichip-LED with high performance refractor optics, selection of light distribution optimised for road or area lighting.
- Clever: E-Charging-Module

#### INSTALLATION

- Flexible: Modular design for combining different luminaire head and pole variants as required.
- **Straightforward:** Luminaire head fastens to luminaire tube via a screw connection.



Further luminaires of this series, see: Outdoor lighting | Bollards

#### The hybrid solution for light and charging station

RZB is actively shaping the change in mobility: Light for charging, charging in light. Robust products that have withstood wind and weather for decades as pure outdoor luminaires have been supplemented with the latest in charging technology.

Find out more at www.rzb-energy.com





#### Light stack | BOCARO - Luminaire head

Type of protection: **IP 65**Protection class: II
Impact protection: **I**K08

Modular light stack consisting of luminaire head and tube. Luminaire head in square aluminium profile, with cover in non-corrosive die-cast aluminium, seawater resistant powder-coated. Multi-chip LED with high-performance refractor optics, Light distribution optimised for road or area lighting. Luminaire head fastens to luminaire tube via a screw connection. Converter compatible with DC.



Modular design: please remember to order the luminaire tube separately for each luminaire head.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Light columns - Lu	minaire head					Price Category 12
Asymmetrical linea	ar light distribution for wide	streets and	paths according	to DIN EN 13201		
612350.00X	L 156, B 156, H 800	730	3700	35	106	on/off
612350.00X.76	L 156, B 156, H 800	730	3750	37	101	DAL
612350.00X.1	L 156, B 156, H 800	740	3950	35	113	on/off
612350.00X.1.76	L 156, B 156, H 800	740	4000	37	108	DALI
Asymmetrical linea	ar light distribution for narro	ow streets a	nd paths accordin	g to DIN EN 1320	1	
612349.00X	L 156, B 156, H 800	730	3650	35	104	on/off
612349.00X.76	L 156, B 156, H 800	730	3750	37	101	DALI
612349.00X.1	L 156, B 156, H 800	740	3850	35	110	on/off
612349.00X.1.76	L 156, B 156, H 800	740	3900	37	105	DALI
Symmetrical light of	distribution for area lighting	(e.g. squar	es, pedestrian zor	nes)		
612351.00X	L 156, B 156, H 800	730	3300	35	94	on/off
612351.00X.76	L 156, B 156, H 800	730	3350	37	91	DALI
612351.00X.1	L 156, B 156, H 800	740	3550	35	101	on/off
612351.00X.1.76	L 156, B 156, H 800	740	3600	37	97	DAL



Comparison LED vs. conventional lamps LED 35 / 37 W ≈ 1 x 50 W HIT (56 W Psys)

#### Modules | BOCARO - Luminaire tube

Luminaire tube made of aluminum square profile, seawater resistant powder-coated. Mounting plate with four screw holes, seawater resistant powder coated. Including fastening screws for cable fuse box. Pole door with triangle lock.

Available colours (X): 31 = anthracite, 4 = silver

Luminaire tube w	rith ground-plate		Price Category 12
612355.00X	L 300, B 300, H 3200	Tube (Lro x Bro) 156x156 mm, Spigot size (Lzo x Bzo) 156x156 mm	
612356.00X	L 300, B 300, H 3700	Tube (Lro x Bro) 156x156 mm, Spigot size (Lzo x Bzo) 156x156 mm	
612357.00X	L 300, B 300, H 4200	Tube (Lro x Bro) 156x156 mm, Spigot size (Lzo x Bzo) 156x156 mm	



#### Modules | BOCARO - Luminaire tube

Luminaire tube made of aluminum square profile, seawater resistant powder-coated. Continuous buried base with two side cable holes. Including fastening screws for cable fuse box. Pole door with triangle lock.

Available colours (X): 31 = anthracite, 4 = silver

		<del></del>
Luminaire tube w	ith anchoring tube	Price Category 12
612352.00X	L 156, B 156, H 3200, HE 800	Tube (Lro x Bro) 156x156 mm, Spigot size (Lzo x Bzo) 156x156 mm
612353.00X	L 156, B 156, H 3700, HE 800	Tube (Lro x Bro) 156x156 mm, Spigot size (Lzo x Bzo) 156x156 mm
612354.00X	L 156, B 156, H 4200, HE 800	Tube (Lro x Bro) 156x156 mm, Spigot size (Lzo x Bzo) 156x156 mm



## Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm². One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199 009	L 265 B 72 H 75	Fuse hox	







# LUPALO® | LUPALO® SCANDIA

Everything at a glance

Depending on personal taste and the area of installation, LUPALO can be used as a bollard, stack or pole-top luminaire. When the optional top roof is added to the latter, it produces a symbolic, almost archetypal effect ... without losing its characteristically modern simplicity.

#### LUPALO

**Non-yellowing glass cylinder** for consistently high light transmission.

Optically elegant power supply via delicate steel cable between control gear and LED, thus reducing shadows.





#### LUPALO

Alternatively clear impact resistant PMMA cylinder.



#### LUPALO SCANDIA

Top roof made of aluminum, seawater-resistant powder-coated with 3 keyholes.

Flexible design: Optionally as standard version in a simple cylinder shape or in a classic lantern design with an top roof which is available as accessory.







#### From light to charging:

LUPALO is also available with an integrated charging module for electric cars.

www.rzb-energy.com

## Zhaga



#### **Smart Lighting**

Versions with either 1 or 2 **Zhaga Book 18 sockets** available for the integration of components for light management systems or sensors.



#### Dark Sky

Protects insects and the environment thanks to needs-based light distribution without light emitted in the upper hemisphere, thus avoiding light pollution.

Multichip-LED with high performance refractor optics, selection of light distribution optimised for road or area lighting.









Converter integrated in the luminaire head.

DALI dimmable, CLO as standard, integrated surge protection and various dim options.

DALI converter is compatible with DC.



Bollard tube made of corrosion-resistant aluminum profile, seawater-resistant powder-coated.





Light stack

#### ARCHITECTURE

- Applicable: Light column for public places such as pedestrian areas, squares, bridges, parks and car parks.
- **Dark Sky:** Protects insects and the environment. Avoiding light pollution.
- Versatile: Non-yellowing glass cylinder or clear impact resistant PMMA cylinder.
- Robust: The use of low-corrosion aluminium alloys in combination with a two-layer, seawater-resistant coating and stainless steel fastening and connecting elements ensures durability.
- **Sustainable:** Environmentally friendly and resource-saving due to replaceable components.



Further luminaires of this series, see: Outdoor lighting | Bollards

#### LIGHTING DESIGN

- Flexible: Multichip-LED with high performance refractor optics, selection of light distribution optimised for road or area lighting.
- Long service life: LED rated life 100000 h ( $L_{\rm CLO}$ ) at 25°C ambient temperature.
- **Standard:** Control gear with integrated surge protection up to 10 kV.
- **Configurable:** Different dim options are possible on request.
- Clever: E-Charging-Module

#### INSTALLATION

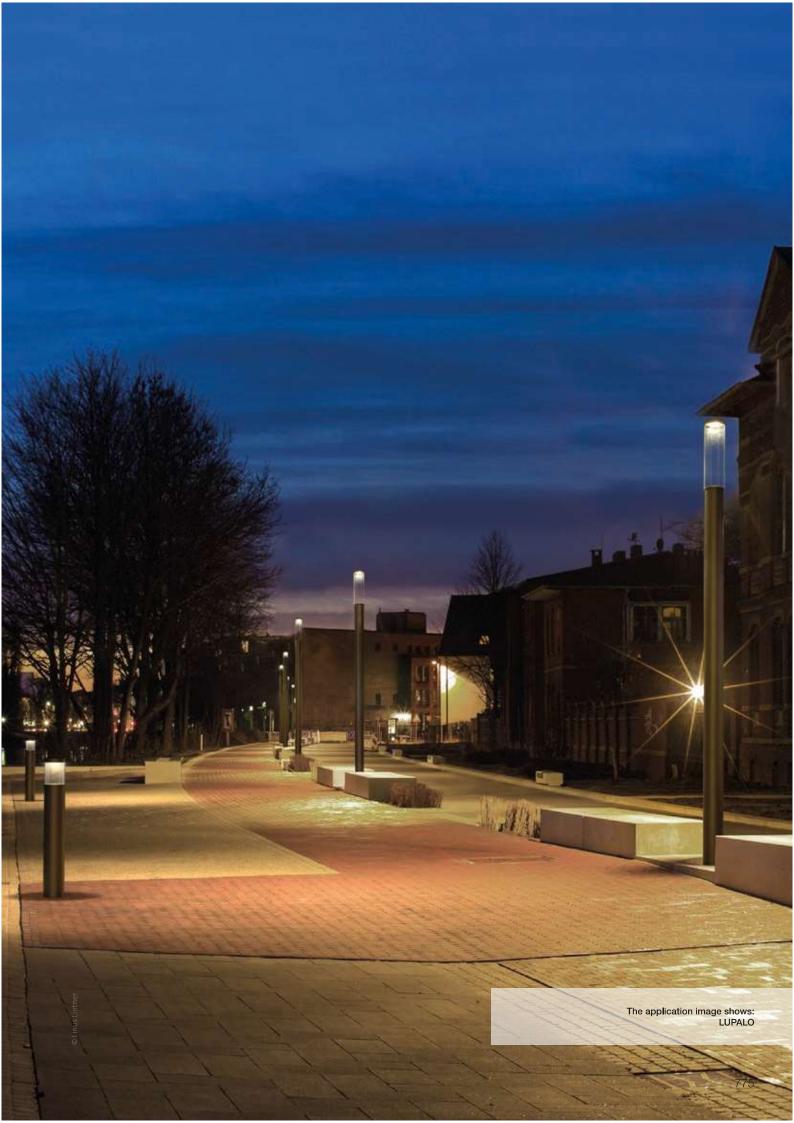
- Flexible: Modular design for combining different luminaire head and pole variants as required.
- Easy installation: Delivered with pre-installed connecting cable.
- **Safe:** Membrane valve to prevent condensation.
- Smart Lighting: Versions with Zhaga Book 18 sockets available for the integration of components for light management systems or sensors.

# The hybrid solution for light and charging station

RZB is actively shaping the change in mobility: Light for charging, charging in light. Robust products that have withstood wind and weather for decades as pure outdoor luminaires have been supplemented with the latest in charging technology.

Find out more at www.rzb-energy.com









#### Light stack | LUPALO - Luminaire head | Glass

Type of protection: **IP 65**Protection class: II
Impact protection: **IK**06

Modular light stack consisting of luminaire head and pole. Luminaire head made of corrosion resistant die-cast aluminium, seawater resistant powder-coated, stainless steel screws. Diffuser: glass, transparent. With membrane valve as a standard to avoid condensed water. Multi-chip LED with high-performance refractor optics. Light distribution optimised for road or area lighting. Elegant-looking power supply via delicate steel cables between converter and LED. Control gear with integrated surge protection up to 10 kV. Converter compatible with DC. With NFC programming interface. Converter integrated in the luminaire head.



#### Please order fuse box separately.

Modular design: please remember to order the luminaire tube separately for each luminaire head.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Light columns - Lur	ninaire head					Price Category 12
Asymmetrical linear	light distribution for w	ide streets and	paths according	to DIN EN 13201		
612329.00X.76	D 187, H 905	730	5250	55	95	DALI
612329.00X.1.76	D 187, H 905	740	5550	55	101	DALI
Asymmetrical linear	light distribution for na	arrow streets ar	nd paths accordin	ng to D <b>I</b> N EN 1320	)1	
612328.00X.76	D 187, H 905	730	5150	55	94	DALI
612328.00X.1.76	D 187, H 905	740	5450	55	99	DALI
Symmetrical light d	istribution for area light	ing (e.g. square	es, pedestrian zor	nes)		
612327.00X.76	D 187, H 905	730	5550	55	101	DALI
612327.00X.1.76	D 187, H 905	740	5800	55	105	DALI





### Modules | LUPALO - Luminaire tube

Protection class: I

Luminaire tube made of aluminum profile, seawater resistant powder-coated. Mounting plate with four screw holes, seawater resistant powder coated. With C-track for cable fuse box. Pole door with triangle lock.

Available colours (X): 31 = anthracite, 4 = silver

Dzo = D	rol T
	PH

Luminaire tube w	ith ground-plate		Price Category 12
612333.00X	D 300, H 3000	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	<u> </u>
612334.00X	D 300, H 3700	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612335.00X	D 300, H 4150	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612336.00X	D 300, H 5000	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	



#### Modules | LUPALO - Luminaire tube

Luminaire tube made of aluminum profile, seawater resistant powder-coated. Continuous buried base with two side cable holes. With C-track for cable fuse box. Pole door with triangle lock.

Available colours (X): 31 = anthracite, 4 = silver



Luminaire tube w	ith anchoring tube		Price Category 12
612233.01X	D 180, H 3150, HE 800	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612234.01X	D 180, H 3700, HE 800	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612235.01X	D 180, H 4150, HE 1000	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	



#### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm<sup>2</sup>. One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	









#### Light stack | LUPALO - Luminaire head | Plastic

Type of protection: **IP 65**Protection class: II
Impact protection: **I**K08

Modular light stack consisting of luminaire head and pole. Luminaire head made of corrosion resistant die-cast aluminium, seawater resistant powder-coated, stainless steel screws. Diffuser made of shock-proof clear plastic (PMMA). With membrane valve as a standard to avoid condensed water. Multi-chip LED with high-performance refractor optics. Light distribution optimised for road or area lighting. DALI control gear with integrated surge protection up to 10 kV. Converter compatible with DC, With NFC programming interface. Converter integrated in the luminaire head.

### Please order fuse box separately.

Modular design: please remember to order the luminaire tube separately for each luminaire head.

Available colours (X): 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Light columns - Lun	ninaire head					Price Category 12
Asymmetrical linear	light distribution for wide s	streets and	paths according	o DIN EN 13201		
612326.00X.76	D 187, H 905	730	5050	55	92	DALI
612326.00X.1.76	D 187, H 905	740	5350	55	97	DALI
Asymmetrical linear	light distribution for narrow	v streets ar	nd paths accordin	g to D <b>I</b> N EN 1320	1	
612325.00X.76	D 187, H 905	730	4900	55	89	DALI
612325.00X.1.76	D 187, H 905	740	5150	55	94	DALI
Symmetrical light di	stribution for area lighting	(e.g. square	es, pedestrian zon	es)		
612324.00X.76	D 187, H 905	730	5550	55	101	DALI
612324.00X.1.76	D 187, H 905	740	5850	55	106	DALI



Comparison LED vs. conventional lamps LED 55 W ≈ 1 x 70 W HIT (84 W Psys)

#### Modules | LUPALO - Luminaire tube

Protection class: I

Luminaire tube made of aluminum profile, seawater resistant powder-coated. Mounting plate with four screw holes, seawater resistant powder coated. With C-track for cable fuse box, Pole door with triangle lock.

Available colours (X): 31 = anthracite, 4 = silver





Luminaire tube w	vith ground-plate		Price Category 12
612333.00X	D 300, H 3000	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612334.00X	D 300, H 3700	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612335.00X	D 300, H 4150	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612336.00X	D 300, H 5000	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	

#### Modules | LUPALO - Luminaire tube

Luminaire tube made of aluminum profile, seawater resistant powder-coated. Continuous buried base with two side cable holes. With C-track for cable fuse box. Pole door with triangle lock.

Available colours (X): 31 = anthracite, 4 = silver





Luminaire tube wit	h anchoring tube		Price Category 12
612233.01X	D 180, H 3150, HE 800	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612234.01X	D 180, H 3700, HE 800	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	
612235.01X	D 180, H 4150, HE 1000	Tube (Dro) Ø 180 mm, Spigot size (Dzo) Ø 180 mm	

#### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm<sup>2</sup>. One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199 009	L 265 B 72 H 75	Fuse box	











## LUPALO® SCANDIA

Pole top luminaires

#### ARCHITECTURE

- Classical: Pole-top luminaire with classic design and modern LED technology.
- **Dark Sky:** Protects insects and the environment. Avoiding light pollution.
- Long service life: The use of low-corrosion aluminium alloys in combination with a two-layer, seawater-resistant coating and stainless steel fastening and connecting elements ensures durability.
- Robust: Seawater resistant coating.
- Sustainable: Environmentally friendly and resource-saving due to replaceable components.

#### LIGHTING DESIGN

- Versatile: The comprehensive selection of light distributions and light outputs allows for an universal application regarding illumination of private paths, public roads up to area lighting (parking lots) according to EN 13201.
- Clever: Versions with movement sensor.
- **Standard:** Control gear with integrated surge protection up to 10 kV.
- **Configurable:** Different dim options are possible on request.

#### INSTALLATION

- Easy installation: Delivered with pre-installed connecting cable.
- **Safe:** Membrane valve to prevent condensation.
- Smart Lighting: Versions with Zhaga Book 18 sockets available for the integration of components for light management systems or sensors.
- Advantageous: Adaptable design optionally as standard variant in a simple cylinder shape or through the available accessories in classic lantern shape with attachment roof.



Further luminaires of this series, see: Outdoor lighting | Bollards







#### Pole top luminaires | LUPALO SCANDIA

Type of protection: **IP 66**Protection class: II
Impact protection: **IK**06



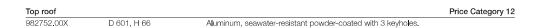
Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Pole attachment for 76 mm spigot. With stainless steel screws. Diffuser: glass, transparent. With membrane valve as a standard to avoid condensed water. Refractor optics with multichip LED, Light distribution optimised for road or area lighting. Elegant-looking power supply via delicate steel cables between converter and LED, DALI control gear with integrated surge protection up to 10 kV. Constant light output (CLO). Converter compatible with DC. With NFC programming interface. Converter integrated in the luminaire head. Pre-assembled connection cable, length 6 m.

Available colours (X): 31 = anthracite, 4 = silver

Comparison LED vs. conventional lamps				
LED 14 W ≈				
1 x 35 W HIT (43 W Psys)				
LED 20 W ≈				
1 x 50 W HIT (56 W Psys)				
LED 35 W ≈				
1 x 70 W HIT (84 W Psys)				

Asymmetrical linear light distribution for wide streets and paths according to DIN EN 13201 612262.00X	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
612262.00X         D 187, H 572         730         1550         14         111         On/off           612262.00X.76         D 187, H 572         730         1550         14         111         DALI           612262.00X.76         D 187, H 572         740         1650         14         118         On/off           612262.00X.176         D 187, H 572         740         1650         14         118         DALI           612263.00X.76         D 187, H 572         730         2250         20         113         On/off           612263.00X.76         D 187, H 572         730         2250         20         113         On/off           612263.00X.1         D 187, H 572         740         2350         20         118         On/off           612263.00X.1         D 187, H 572         740         2350         20         118         DALI           612264.00X         D 187, H 572         730         3650         35         104         On/off           612264.00X.1         D 187, H 572         740         3850         35         110         On/off           612264.00X.1         D 187, H 572         740         3850         35         110         On/off	Luminaires for spig	ot Ø 76 mm					Price Category 12
612262.00X.76         D 187, H 572         730         1550         14         111         DALI           612262.00X.1         D 187, H 572         740         1650         14         118         on/off           612262.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612263.00X         D 187, H 572         730         2250         20         113         on/off           612263.00X.76         D 187, H 572         730         2250         20         113         DALI           612263.00X.1         D 187, H 572         740         2350         20         118         on/off           612263.00X.1.76         D 187, H 572         740         2350         20         118         DALI           612263.00X.1.76         D 187, H 572         740         2350         20         118         DALI           612264.00X         D 187, H 572         730         3650         35         104         on/off           612264.00X.76         D 187, H 572         740         3850         35         110         on/off           612264.00X.1.76         D 187, H 572         740         3850         35         110         on/off </td <td>Asymmetrical linea</td> <td>r light distribution for w</td> <td>ide streets and</td> <td>paths according</td> <td>to DIN EN 13201</td> <td></td> <td></td>	Asymmetrical linea	r light distribution for w	ide streets and	paths according	to DIN EN 13201		
612262.00X.1         D 187, H 572         740         1650         14         118         On/off           612262.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612263.00X         D 187, H 572         730         2250         20         113         On/off           612263.00X.76         D 187, H 572         730         2250         20         113         DALI           612263.00X.1         D 187, H 572         740         2350         20         118         On/off           612263.00X.1.76         D 187, H 572         740         2350         20         118         DALI           612264.00X.1.76         D 187, H 572         730         3650         35         104         On/off           612264.00X.7         D 187, H 572         730         3650         35         104         DALI           612264.00X.1         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         DALI           612265.00X.1	612262.00X	D 187, H 572	730	1550	14	111	on/off
612262.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612263.00X         D 187, H 572         730         2250         20         113         on/off           612263.00X.76         D 187, H 572         730         2250         20         113         DALI           612263.00X.1         D 187, H 572         740         2350         20         118         DALI           612263.00X.1.76         D 187, H 572         740         2350         20         118         DALI           612264.00X         D 187, H 572         730         3650         35         104         on/off           612264.00X.76         D 187, H 572         730         3650         35         110         DALI           612264.00X.1,76         D 187, H 572         740         3850         35         110         DALI           612264.00X.1,76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201         11         01/06f           612265.00X         D 187, H 572         730         1600         14         114         01/06f <t< td=""><td>612262.00X.76</td><td>D 187, H 572</td><td>730</td><td>1550</td><td>14</td><td>111</td><td>DALI</td></t<>	612262.00X.76	D 187, H 572	730	1550	14	111	DALI
612263.00X D 187, H 572 730 2250 20 113 DALI 612263.00X.76 D 187, H 572 740 2350 20 118 DALI 612263.00X.1 D 187, H 572 740 2350 20 118 DALI 612263.00X.1.76 D 187, H 572 740 2350 20 118 DALI 612264.00X D 187, H 572 730 3650 35 104 OALI 612264.00X.76 D 187, H 572 740 3850 35 104 DALI 612264.00X.1 D 187, H 572 740 3850 35 110 OALI 612264.00X.1 D 187, H 572 740 3850 35 110 OALI 612264.00X.1 D 187, H 572 740 3850 35 110 DALI 612265.00X.1 D 187, H 572 740 3850 35 110 OALI 612265.00X.1 D 187, H 572 740 3850 35 110 OALI 612265.00X D 187, H 572 740 3850 35 110 OALI 612265.00X D 187, H 572 730 1600 14 114 OALI 612265.00X.76 D 187, H 572 730 1600 14 114 DALI 612265.00X.1 D 187, H 572 740 1650 14 118 OALI 612265.00X.1 D 187, H 572 740 1650 14 118 DALI 612266.00X D 187, H 572 730 2250 20 113 OALI 612266.00X D 187, H 572 730 2250 20 113 DALI 612266.00X.1 D 187, H 572 740 2400 20 120 On/off 612266.00X.1.76 D 187, H 572 740 2400 20 120 DALI 612267.00X D 187, H 572 730 3700 35 106 DALI 612267.00X D 187, H 572 730 3700 35 106 DALI 612267.00X D 187, H 572 730 3700 35 106 DALI 612267.00X D 187, H 572 730 3700 35 106 DALI 612267.00X.1 D 187, H 572 730 3700 35 106 DALI 612267.00X.1 D 187, H 572 730 3700 35 106 DALI 612267.00X.1 D 187, H 572 730 3700 35 106 DALI	612262.00X.1	D 187, H 572	740	1650	14	118	on/off
612263.00X.76         D 187, H 572         730         2250         20         113         DALI           612263.00X.1         D 187, H 572         740         2350         20         118         on/off           612263.00X.1.76         D 187, H 572         740         2350         20         118         DALI           612264.00X         D 187, H 572         730         3650         35         104         On/off           612264.00X.76         D 187, H 572         740         3850         35         110         on/off           612264.00X.1, 76         D 187, H 572         740         3850         35         110         on/off           612264.00X.1, 76         D 187, H 572         740         3850         35         110         on/off           612264.00X.1, 76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         on/off           612265.00X, 76         D 187, H 572         730         1600         14         114         DALI           6122	612262.00X.1.76	D 187, H 572	740	1650	14	118	DALI
612263.00X.1         D 187, H 572         740         2350         20         118         on/off           612263.00X.1.76         D 187, H 572         740         2350         20         118         DALI           612264.00X         D 187, H 572         730         3650         35         104         DALI           612264.00X.76         D 187, H 572         730         3660         35         104         DALI           612264.00X.1         D 187, H 572         740         3850         35         110         on/off           612264.00X.1,76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201         TON 100         DALI         On/off           612265.00X         D 187, H 572         730         1600         14         114         DALI           612265.00X,76         D 187, H 572         730         1650         14         118         On/off           612266.00X,1,76         D 187, H 572         730         2250         20         113         On/off           612266.00X,1         D 187, H 572         730         2250         20         113 <t< td=""><td>612263.00X</td><td>D 187, H 572</td><td>730</td><td>2250</td><td>20</td><td>113</td><td>on/off</td></t<>	612263.00X	D 187, H 572	730	2250	20	113	on/off
612263.00X.1.76         D 187, H 572         740         2350         20         118         DALI           612264.00X         D 187, H 572         730         3650         35         104         on/off           612264.00X.76         D 187, H 572         730         3650         35         104         DALI           612264.00X.1         D 187, H 572         740         3850         35         110         on/off           612264.00X.1.76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         on/off           612265.00X.76         D 187, H 572         740         1650         14         118         on/off           612265.00X.1         D 187, H 572         740         1650         14         118         DALI           612266.00X.1         D 187, H 572         730         2250         20         113         On/off           612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.7 <td>612263.00X.76</td> <td>D 187, H 572</td> <td>730</td> <td>2250</td> <td>20</td> <td>113</td> <td>DALI</td>	612263.00X.76	D 187, H 572	730	2250	20	113	DALI
612264.00X         D 187, H 572         730         3650         35         104         on/off           612264.00X.76         D 187, H 572         730         3650         35         104         DALI           612264.00X.1         D 187, H 572         740         3850         35         110         on/off           612264.00X.1.76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         on/off           612265.00X.76         D 187, H 572         730         1600         14         114         DALI           612265.00X.1         D 187, H 572         740         1650         14         118         on/off           612265.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612266.00X.1         D 187, H 572         730         2250         20         113         On/off           612266.00X.76         D 187, H 572         740         2400         20         120         On/off           612266.00X.1.7	612263.00X.1	D 187, H 572	740	2350	20	118	on/off
612264.00X.76         D 187, H 572         730         3650         35         104         DALI           612264.00X.1         D 187, H 572         740         3850         35         110         on/off           612264.00X.1.76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         DALI           612265.00X.76         D 187, H 572         730         1600         14         114         DALI           612265.00X.1         D 187, H 572         740         1650         14         118         On/off           612265.00X.1.76         D 187, H 572         730         2250         20         113         On/off           612266.00X.1         D 187, H 572         730         2250         20         113         DALI           612266.00X.76         D 187, H 572         740         2400         20         120         On/off           612266.00X.1         D 187, H 572         740         2400         20         120         DALI           612266.00X.1.76<	612263.00X.1.76	D 187, H 572	740	2350	20	118	DALI
612264.00X.1         D 187, H 572         740         3850         35         110         on/off           612264.00X.1.76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         DALI           612265.00X.76         D 187, H 572         730         1600         14         114         DALI           612265.00X.1         D 187, H 572         740         1650         14         118         On/off           612265.00X.1.76         D 187, H 572         730         2250         20         113         On/off           612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.76         D 187, H 572         740         2400         20         120         On/off           612266.00X.1         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         On/off           612267.00X.76 <td>612264.00X</td> <td>D 187, H 572</td> <td>730</td> <td>3650</td> <td>35</td> <td>104</td> <td>on/off</td>	612264.00X	D 187, H 572	730	3650	35	104	on/off
612264.00X.1.76         D 187, H 572         740         3850         35         110         DALI           Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         On/off           612265.00X.76         D 187, H 572         730         1600         14         114         DALI           612265.00X.1         D 187, H 572         740         1650         14         118         On/off           612265.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612266.00X.         D 187, H 572         730         2250         20         113         On/off           612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.1         D 187, H 572         740         2400         20         120         On/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612266.00X.1.76         D 187, H 572         730         3700         35         106         On/off           612267.00X	612264.00X.76	D 187, H 572	730	3650	35	104	DALI
Asymmetrical linear light distribution for narrow streets and paths according to DIN EN 13201           612265.00X         D 187, H 572         730         1600         14         114         on/off           612265.00X.76         D 187, H 572         730         1600         14         114         DALI           612265.00X.1         D 187, H 572         740         1650         14         118         On/off           612265.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612266.00X         D 187, H 572         730         2250         20         113         On/off           612266.00X         D 187, H 572         730         2250         20         113         DALI           612266.00X.1         D 187, H 572         740         2400         20         120         On/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612266.00X.7.8         D 187, H 572         730         3700         35         106         On/off           612267.00X         D 187, H 572         730         3700         35         106         DALI           612267.00X.76	612264.00X.1	D 187, H 572	740	3850	35	110	on/off
612265.00X         D 187, H 572         730         1600         14         114         on/off           612265.00X.76         D 187, H 572         730         1600         14         114         DALI           612265.00X.1         D 187, H 572         740         1650         14         118         on/off           612265.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612266.00X         D 187, H 572         730         2250         20         113         on/off           612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.1         D 187, H 572         740         2400         20         120         on/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.1         D 187, H 572         740         3900         35         111         on/off	612264.00X.1.76	D 187, H 572	740	3850	35	110	DALI
612265.00X.76         D 187, H 572         730         1600         14         114         DALI           612265.00X.1         D 187, H 572         740         1650         14         118         on/off           612265.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612266.00X         D 187, H 572         730         2250         20         113         On/off           612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.1         D 187, H 572         740         2400         20         120         on/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.76         D 187, H 572         740         3900         35         111         on/off	Asymmetrical linea	r light distribution for na	arrow streets ar	nd paths accordin	g to DIN EN 1320	1	
612265.00X.1         D 187, H 572         740         1650         14         118         on/off           612265.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612266.00X         D 187, H 572         730         2250         20         113         on/off           612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.1         D 187, H 572         740         2400         20         120         on/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.1         D 187, H 572         740         3900         35         111         on/off	612265.00X	D 187, H 572	730	1600	14	114	on/off
612265.00X.1.76         D 187, H 572         740         1650         14         118         DALI           612266.00X         D 187, H 572         730         2250         20         113         on/off           612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.1         D 187, H 572         740         2400         20         120         on/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.1         D 187, H 572         740         3900         35         111         on/off	612265.00X.76	D 187, H 572	730	1600	14	114	DALI
612266.00X         D 187, H 572         730         2250         20         113         on/off           612266.00X,76         D 187, H 572         730         2250         20         113         DALI           612266.00X,1         D 187, H 572         740         2400         20         120         on/off           612266.00X,1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X,76         D 187, H 572         730         3700         35         106         DALI           612267.00X,1         D 187, H 572         740         3900         35         111         on/off	612265.00X.1	D 187, H 572	740	1650	14	118	on/off
612266.00X.76         D 187, H 572         730         2250         20         113         DALI           612266.00X.1         D 187, H 572         740         2400         20         120         on/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.1         D 187, H 572         740         3900         35         111         on/off	612265.00X.1.76	D 187, H 572	740	1650	14	118	DALI
612266.00X.1         D 187, H 572         740         2400         20         120         on/off           612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.1         D 187, H 572         740         3900         35         111         on/off	612266.00X	D 187, H 572	730	2250	20	113	on/off
612266.00X.1.76         D 187, H 572         740         2400         20         120         DALI           612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.1         D 187, H 572         740         3900         35         111         on/off	612266.00X.76	D 187, H 572	730	2250	20	113	DALI
612267.00X         D 187, H 572         730         3700         35         106         on/off           612267.00X.76         D 187, H 572         730         3700         35         106         DALI           612267.00X.1         D 187, H 572         740         3900         35         111         on/off	612266.00X.1	D 187, H 572	740	2400	20	120	on/off
612267.00X.76 D 187, H 572 730 3700 35 106 DALI 612267.00X.1 D 187, H 572 740 3900 35 111 on/off	612266.00X.1.76	D 187, H 572	740	2400	20	120	DALI
612267.00X.1 D 187, H 572 740 3900 35 111 on/off	612267.00X	D 187, H 572	730	3700	35	106	on/off
·	612267.00X.76	D 187, H 572	730	3700	35	106	DALI
612267 00X 1 76 D 187 H 572 740 3900 35 111 DALL	612267.00X.1	D 187, H 572	740	3900	35	111	on/off
012201.00 C.1.10 D.101,11012 170 0000 00 111 D.101	612267.00X.1.76	D 187, H 572	740	3900	35	111	DALI
Symmetrical light distribution for area lighting (e.g. squares, pedestrian zones)	Symmetrical light of	listribution for area light	ting (e.g. square	es, pedestrian zor	nes)		
612259.00X D 187, H 572 730 1750 14 125 on/off	612259.00X	D 187, H 572	730	1750	14	125	on/off
612259.00X.76 D 187, H 572 730 1750 14 125 DALI	612259.00X.76	D 187, H 572	730	1750	14	125	DALI
612259.00X.1 D 187, H 572 740 1800 14 129 on/off	612259.00X.1	D 187, H 572	740	1800	14	129	on/off
612259.00X.1.76 D 187, H 572 740 1800 14 129 DALI	612259.00X.1.76	D 187, H 572	740	1800	14	129	DALI
612260.00X D 187, H 572 730 2450 20 123 on/off	612260.00X	D 187, H 572	730	2450	20	123	on/off
612260.00X.76 D 187, H 572 730 2450 20 123 DALI	612260.00X.76	D 187, H 572	730	2450	20	123	DALI
612260.00X.1 D 187, H 572 740 2600 20 130 on/off	612260.00X.1	D 187, H 572	740	2600	20	130	on/off
612260.00X.1.76 D 187, H 572 740 2600 20 130 DALI	612260.00X.1.76	D 187, H 572	740	2600	20	130	DALI
612261.00X D 187, H 572 730 4100 35 117 on/off	612261.00X	D 187, H 572	730	4100	35	117	on/off
612261.00X.76 D 187, H 572 730 4100 35 117 DALI	612261.00X.76	D 187, H 572	730	4100	35	117	DALI
612261.00X.1 D 187, H 572 740 4300 35 123 on/off	612261.00X.1	D 187, H 572	740	4300	35	123	on/off
612261.00X.1.76 D 187, H 572 740 4300 35 123 DALI	612261.00X.1.76	D 187, H 572	740	4300	35	123	DALI







Reducing adapters			Price Category 12
982762.000	D 84, H 85	Spigot adapter for mounting Ø 76 mm pole-top on Ø 60 mm spigot, with 2 headless screws.	



#### Pole top luminaires | LUPALO SCANDIA - Zhaga socket | movement sensor

Type of protection: **IP 66**Protection class: II
Impact protection: **I**K06

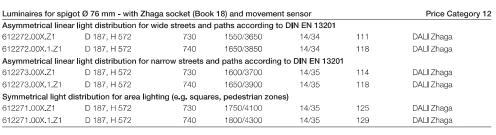
Housing made of corrosion-resistant die-cast aluminium, seawater resistant powder-coated. Pole attachment for 76 mm spigot. With stainless steel screws. Diffuser: glass, transparent. With membrane valve as a standard to avoid condensed water. Refractor optics with multichip LED, Light distribution optimised for road or area lighting. Control gear with integrated surge protection up to 10 kV. Constant light output (CLO). Converter compatible with DC, With NFC programming interface, Converter integrated in the luminaire head. Pre-assembled connection cable, length 6 m.

Available colours (X): 31 = anthracite, 4 = silver

The integrated Zhaga base allows sensors and light management systems to be retrofitted without the need for tools.

Passive infrared movement sensor (PIR) with 8-10 m detection range.

Reference number	Dimensions [mm]	Light colour	Luminous flux [Im]	System power [W]	System efficiency* [lm/W]	Lighting control
Luminaires for spigo	ot Ø 76 mm - Zhaga soc	ket				Price Category 12
Asymmetrical linear	light distribution for wid	de streets and	paths according to	o DIN EN 13201		
612269.00X.Z1	D 187, H 572	730	1550/3650	14/34	111	DALI Zhaga
612269.00X.1.Z1	D 187, H 572	740	1650/3850	14/34	118	DALI Zhaga
Asymmetrical linear	light distribution for na	rrow streets ar	nd paths according	to DIN EN 1320	1	
612270.00X.Z1	D 187, H 572	730	1600/3700	14/35	114	DALI Zhaga
612270.00X.1.Z1	D 187, H 572	740	1650/3900	14/35	118	DALI Zhaga
Symmetrical light di	stribution for area lighti	ng (e.g. square	es, pedestrian zon	es)		
612268.00X.Z1	D 187, H 572	730	1750/4100	14/35	125	DALI Zhaga
612268.00X.1.Z1	D 187, H 572	740	1800/4300	14/35	129	DALI Zhaga





Comparison
LED vs. conventional lamps

LED 14 W ≈
1 x 35 W HIT (43 W Psys)

LED 34 / 35 W ≈
1 x 70 W HIT (84 W Psys)

Top roof			Price Category 12
982752.00X	D 601, H 66	Aluminum, seawater-resistant powder-coated with 3 keyholes.	

Reducing adapters			Price Category 12
982762.000	D 84, H 85	Spigot adapter for mounting Ø 76 mm pole-top on Ø 60 mm spigot, with 2 headless screws.	











# STEEL POLES

Accessories

- CE-certified steel poles, compliant with EN 40, with continuous buried base as a standard, on request available with flange plate.
- Precise door cut out for accurate flush fitting.
- Powder-coated with RZB standard colours for optimum consistency with the luminaire paint, RAL colours possible on request.
- Careful smoothing of the visible area as pre-treatment for powder-coating.
- Direct transport with special vehicles from the production plant to the place of delivery to avoid transport damage.









#### Accessories | Steel poles, spigot Ø: 76 mm

Cylindrical stepped pole made of steel according to DIN EN 40. Hot-dip galvanised in compliance with DIN EN ISO 1461. Flush pole door,  $85 \times 400$  mm. Triangular lock, other locks on request. C-slot with two sliding nuts M6 and earthing stud M8. Cable hole  $50 \times 150$  mm (UKK 500 mm below level).

We charge additional shipping costs for small quantities up to 5 poles per place of delivery, regardless of the order value. Please ask for exact conditions for specific orders.

Available colours (X): 0 = blank, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]		
Straight light pole	es cylindrical, stepped with sw	aged joint, according to EN 40	Price Category 12
611891.000	D 114, H 3500, HE 600	uncoated	
611891.00X	D 114, H 3500, HE 600	powder-coated	
611892.000	D 114, H 4000, HE 800	uncoated	
611892.00X	D 114, H 4000, HE 800	powder-coated	
611893.000	D 114, H 4500, HE 800	uncoated	
611893.00X	D 114, H 4500, HE 800	powder-coated	
611894.000	D 114, H 5000, HE 800	uncoated	
611894.00X	D 114, H 5000, HE 800	powder-coated	
611895.000	D 114, H 6000, HE 1000	uncoated	
611895.00X	D 114, H 6000, HF 1000	powder-coated	







#### Accessories | Steel poles, spigot Ø: 76 mm

Conical steel pole, according to DIN EN 40. Hot-dip galvanised in compliance with DIN EN ISO 1461. Flush pole door,  $85 \times 400$  mm. Triangular lock, other locks on request. C-slot with two sliding nuts M6 and earthing stud M8. Cable hole  $50 \times 150$  mm (UKK 500 mm below level).

We charge additional shipping costs for small quantities up to 5 poles per place of delivery, regardless of the order value. Please ask for exact conditions for specific orders.

Available colours (X): 0 = blank, 31 = anthracite, 4 = silver

Reference number	Dimensions [mm]		
Straight light pol	es conical round according to E	N40	Price Category 12
611896.000	D 134, H 3500, HE 600	uncoated	
611896.00X	D 134, H 3500, HE 600	powder-coated	
611897.000	D 124, H 4000, HE 800	uncoated	
611897.00X	D 124, H 4000, HE 800	powder-coated	
611898.000	D 129, H 4500, HE 800	uncoated	
611898.00X	D 129, H 4500, HE 800	powder-coated	
611899.000	D 134, H 5000, HE 800	uncoated	
611899.00X	D 134, H 5000, HE 800	powder-coated	
611900.000	D 146, H 6000, HE 1000	uncoated	
611900.00X	D 146, H 6000, HE 1000	powder-coated	
611901.000	D 156, H 7000, HE 1000	uncoated	
611901.00X	D 156, H 7000, HE 1000	powder-coated	
611902.000	D 168, H 8000, HE 1200	uncoated	
611902.00X	D 168, H 8000, HE 1200	powder-coated	
611903.000	D 191, H 10000, HE 1500	uncoated	
611903.00X	D 191, H 10000, HE 1500	powder-coated	





#### Accessories | Fuse box

Housing: plastic. Contact protection in accordance with VBG 4. Input for 3 cables 5 x 16 mm². One D01 / E14 Fuse. 2 outgoing lines.

Fuse box			Price Category 12
61199.009	L 265, B 72, H 75	Fuse box.	

Base plate set - Mounting aid / protection against sinking			Price Category 12
982099.000	L 300, B 300, H 3	loose including fastening screws	
982100.000	L 400, B 400, H 3	loose including fastening screws	

Edge guard for cable hole	Price Category 12
982098.003	Edge guard for cable hole 50 x 150 mm

Shrink sleeve for	earth transition area, pla	stic	Price Category 12
982566.003	L 450, D 130	for pole diameter 110 - 130 mm	
982567.003	L 450, D 150	for pole diameter 125 - 150 mm	
982101.003	L 450, D 170	for pole diameter 145 - 170 mm	
982102.003	L 450, D 215	for pole diameter 170 - 195 mm	











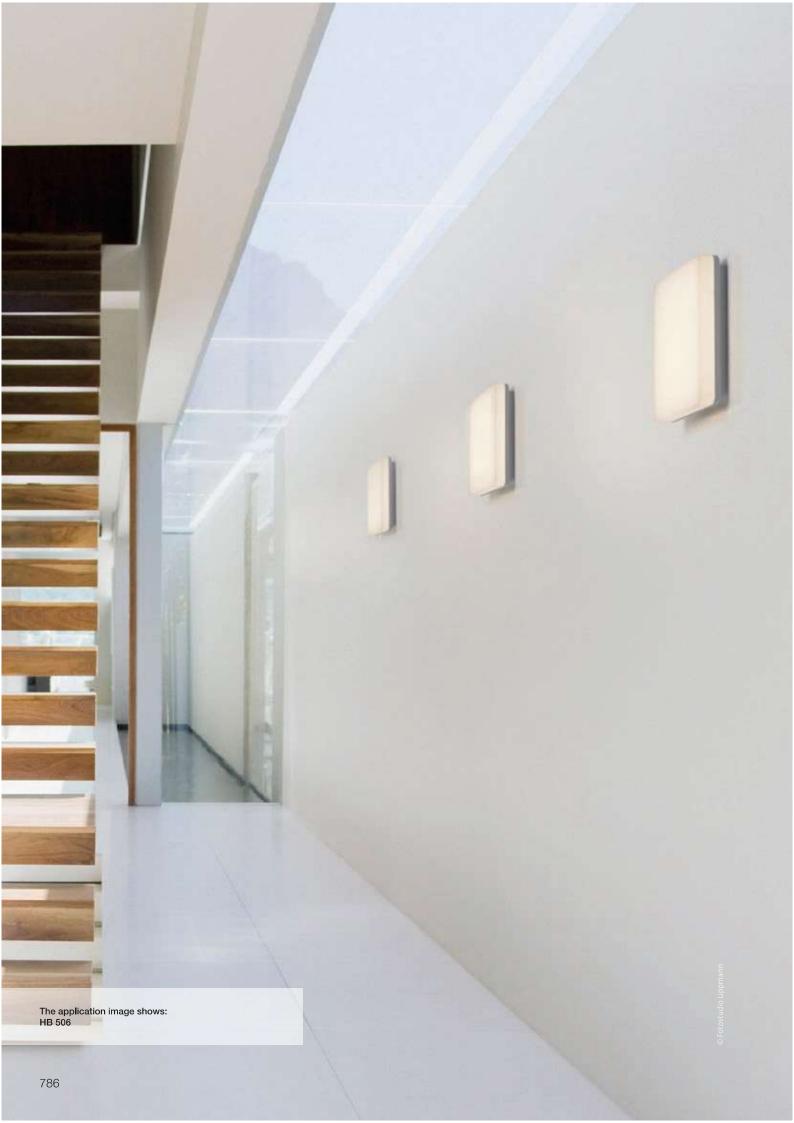


### **RZB HOME + BASIC**

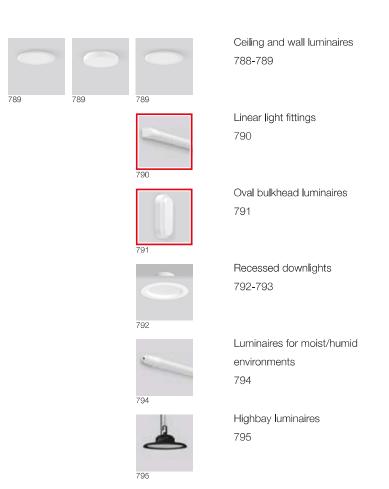
The RZB HOME + BASIC range includes a number of different indoor and outdoor luminaires. An almost unbeatable price-performance ratio makes the energy-saving, low-maintenance luminaires for private use as well as in public areas such as attractive as in stairwells, hallways, dormitories, schools and kindergardens. Thanks to the expanded product range, lighting tasks in basements, underground parking and workshops can also be easily realized. The diversity within the HOME + BASIC series leaves plenty of scope for a wide variety of design approaches and creative ideas.

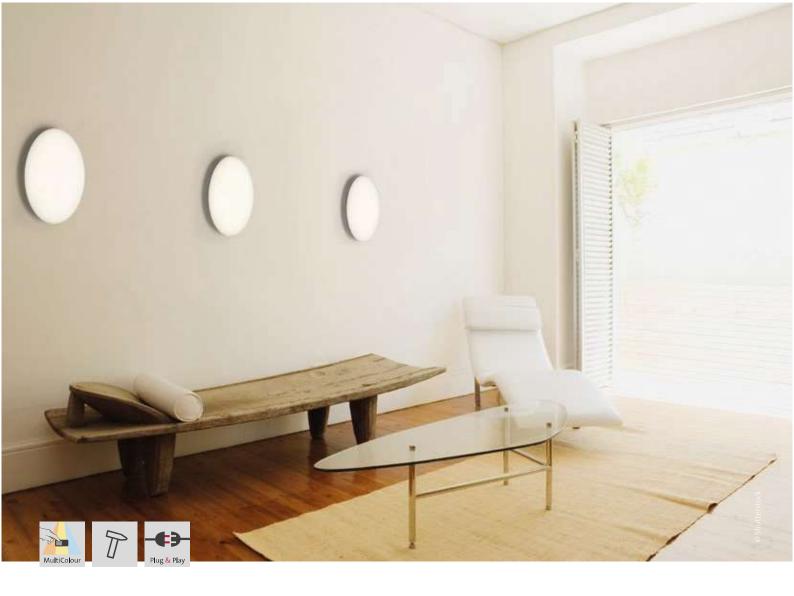
All products in the HOME + BASIC family are submitted to demanding RZB quality inspections and so, without exception, meet the high standards of the Bamberg luminaire manufacturer.











# HOME + BASIC

Ceiling and wall luminaires

- Convincing combination of design and value for money.
- Easy installation with Plug & Play plug connection.
- Low installation height.
- Homogeneous light distribution.
- For private and public use.



#### Ceiling and wall luminaires | HB 501

Type of protection: **IP 40**Protection class: I
Impact protection: **I**K06

Quick mounting adapter steel sheet, white powder-coated, with bayonet fastening, Housing: plastic (polycarbonate). Diffuser: plastic (polycarbonate), opal. Base and diffuser are sealed together, Driver integrated.

Available colour: 2 = white

MultiColour: Colour temperature adjustable via switching element, Factory setting is 3000 K.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency# [lm/W]	Lighting control
Ceiling and wall	luminaires		* *	. ,	,	Price Category 11
221174.002.2	D 250, H 48	830, 840, 857	1100	12	92	on/off
221175.002.2	D 300, H 48	830, 840, 857	1750	17	103	on/off
221176.002.2	D 400, H 63	830, 840, 857	2400	25	96	on/off

MultiColour: luminous flux and system power can vary depends on the light color. You will find more detailed information on www.rzb-lighting.com.





Comparison LED vs. conventional lamps

LED 12 W ≈

1 x 26 W TC-D (34 W Psys)

LED 17 W ≈

2 x 18 W TC-D (52 W Psys)

LED 25 W ≈

2 x 26 W TC-D (68 W Psys)

#### Ceiling and wall luminaires | HB 505

Type of protection: IP 20 Protection class: I Impact protection: IK06

Quick mounting adapter galvanized steel sheet, with fastening screws. Housing: plastic (polycarbonate). Diffuser: plastic (polycarbonate), opal. Base and diffuser are sealed together. Driver integrated.

Available colour: 2 = white

MultiColour: Colour temperature adjustable via switching element, Factory setting is 3000 K.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Ceiling and wall lu	minaires					Price Category 11
221186.002.2	D 220, H 53	830, 840	1350	15	93	on/off
221187.002.2	D 268, H 53	830, 840	1600	18	94	on/off

MultiColour: luminous flux and system power can vary depends on the light color. You will find more detailed information on www.rzb-lighting.com.



Comparison LED vs. conventional lamps

**LED 15 / 18 W ≈** 2 x 18 W TC-D (52 W Psys)

#### Ceiling and wall luminaires | HB 506

Type of protection: IP 20 Protection class: I Impact protection: IK06

Quick mounting adapter galvanized steel sheet, with fastening screws. Housing: plastic (polycarbonate). Diffuser: plastic (polycarbonate), opal.

Base and diffuser are sealed together. Driver integrated.

Available colour: 2 = white

MultiColour: Colour temperature adjustable via switching element. Factory setting is 3000 K.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Ceiling and wall lumi	naires					Price Category 11
221188.002.2	L 210, B 210, H 53	830, 840	1350	15	93	on/off
221189.002.2	L 260, B 260, H 53	830, 840	1700	18	100	on/off

MultiColour: luminous flux and system power can vary depends on the light color. You will find more detailed information on www.rzb-lighting.com.



Comparison LED vs. conventional lamps

**LED 15 / 18 W ≈** 2 x 18 W TC-D (52 W Psys)





Comparison LED vs. conventional lamps

LED 9,3 W ≈

1 x 24 W T16 (24 W Psys)

LED 11 W ≈

1 x 28 W T16 (31 W Psys)

### Linear light fittings | HB 507

Type of protection: **IP 40**Protection class: II
Impact protection: **I**K03

Body and end caps made of white plastic.

Diffuser: plastic, opal. Converter integrated and encapsulated.

Available colour: 2 = white

MultiColour: Colour temperature adjustable via switching element. Factory setting is 4000 K.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Linear luminaires						Price Category 11
451222.002	L 600, B 42, H 55	830, 840	1000	9,3	108	on/off
451223.002	L 1200, B 42, H 55	830, 840	1400	11	127	on/off



### Oval bulkhead luminaires | HB 710

Type of protection: **IP 54** Protection class: II Impact protection: **IK**07

Housing and diffusor: opal, made of shockproof plastic (polycarbonate). Convenient, flexible connection option using 2 rear and 4 lateral cable inlets. Internal fixing points mean no screws are visible. Simple, tool-free installation using the Plug & Play plug-in system. LED module can be connected without use of tools. Suitable for through-wiring.

Available colour: 2 = white

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency# [lm/W]	Lighting control
Ceiling and wall lu	minaires					Price Category 11
501050.002 .Q	L 207, B 97, H 56	840	700/1100	6/9,5	117	on/off



Ceiling and wall luminaires with integrated HF movement sensor						Price Category 11
501050.002.19	L 207, B 97, H 56	840	700/1100	7/10	110	Sensor



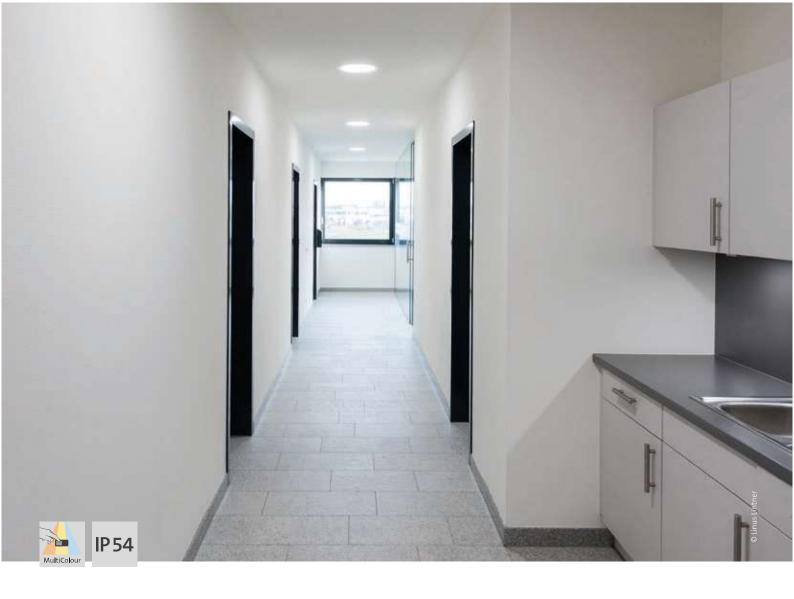
Comparison LED vs. conventional lamps

LED 6 / 7 W ≈

1 x 18 W TC-D (26 W Psys)

LED 9,5 / 10 W ≈

1 x 26 W TC-D (34 W Psys)







LED 13 W ≈

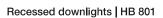
1 x 26 W TC-D (34 W Psys)

LED 16 W ≈

1 x 32 W TC-TEL (36 W Psys)

LED 20 W ≈

1 x 42 W TC-TEL (47 W Psys)



Type of protection: IP 40, IP 54 on room side

Protection class: II
Ceiling thickness S: 5-22 mm Impact protection: IK03

 $\label{thm:loss} \mbox{Housing: aluminium, plastic-coated. Passive cooling. Diffuser: plastic (polycarbonate), opal. \\ \mbox{Spring fastening system. } \mbox{Driver included.}$ 

Available colour: 2 = white

MultiColour: Colour temperature adjustable via switching element. Factory setting is 4000 K.

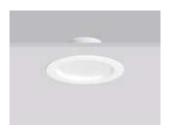
Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>√</b> a [°]	UGR	Lighting control
Recessed downligh	nts							Price Category 21
Ceiling cut out DA	125 mm							
901695.002	D 145, H 3, HE 80	830, 840, 857	1250	13	96	107	27,929	on/off
Ceiling cut out DA	165 mm							
901696.002	D 190, H 3, HE 92	830, 840, 857	1550	16	97	105	26,827,4	on/off
Ceiling cut out DA 205 mm								
901697.002 .Q	D 225, H 3, HE 103	830, 840, 857	1950	20	98	106	26,426,9	on/off

MultiColour: luminous flux and system power can vary depends on the light color. You will find more detailed information on www.rzb-lighting.com.



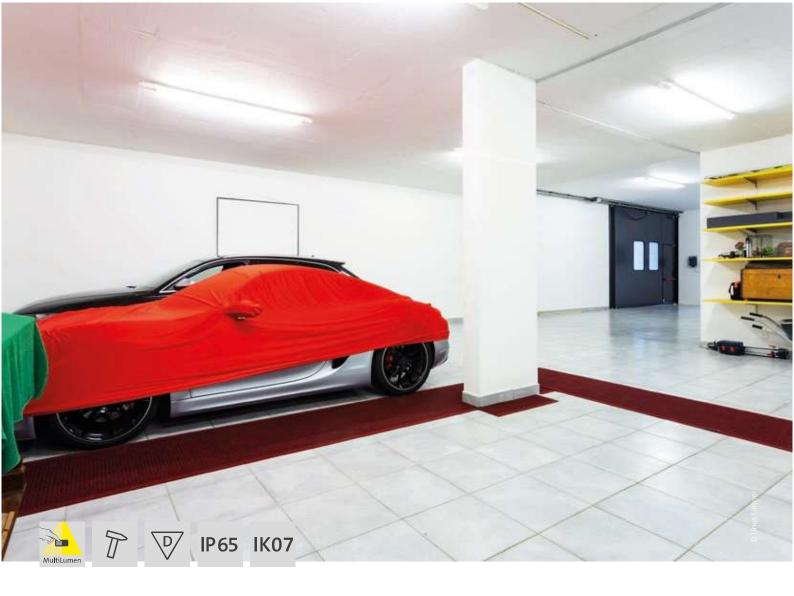
MultiColour - Colour temperature adjustable via switching element.













# Comparison LED vs. conventional lamps

# LED 20 W ≈

1 x 49 W T16 (53 W Psys)

# LED 35 W ≈

1 x 80 W T16 (86 W Psys)

# LED 52 W ≈

2 x 54 W T16 (115 W Psys)



Type of protection: **IP 65**Protection class: II
Impact protection: **IK**07

Side panels: plastic, white polycarbonate. Diffuser: plastic (polycarbonate), opal. Converter encapsulated, integrated and permanently connected to the diffuser and side panel. Cable screw fittings for convenient wiring. Easy installation with removable end caps at both ends. Luminaire with integrated 3-phase through-wiring to connect multiple luminaires. Ceiling mounting stainless steel brackets and triangular brackets for pendant mounting included in delivery.

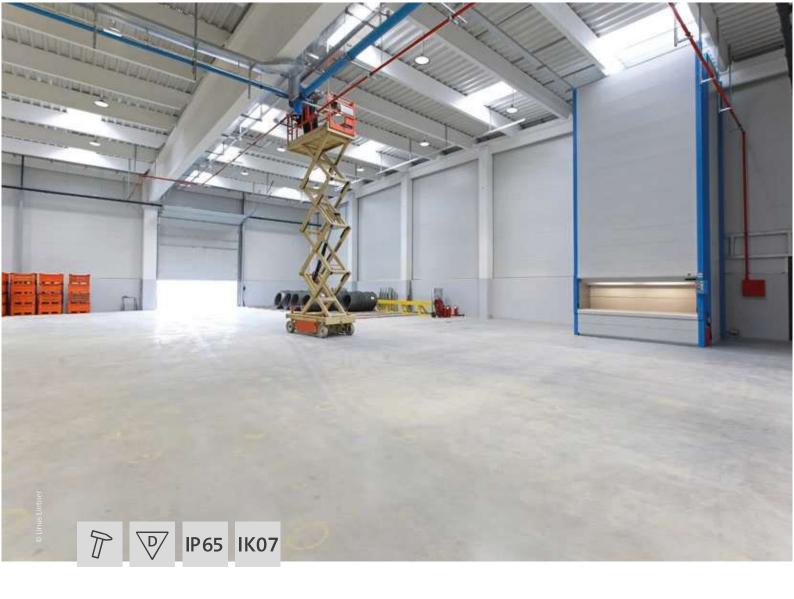
 $\ensuremath{\mathbb{V}}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

Available colour: 2 = white

MultiLumen: 2 steps adjustable luminous flux. Factory setting is the highest luminous flux.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control	
Ceiling, wall and	pendant luminaires					Price Cate	gory 11
451216.002 .Q	L 1260, B 53, H 53	840	2300/4000	20/35	115	on/off	
451217.002 .Q	L 1560, B 53, H 53	840	4000/6000	35/52	115	on/off	





# Highbay luminaires | HB 720

Type of protection: **IP 65**Protection class: I
Impact protection: **IK**07



 $\ \ \, \mathbb{V}$  Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

Available colour: 3 = black

7

	Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	UGR	Lighting control
,	Highbay luminaires								Price Category 11
	921678.003	D 320, H 105	840	20000	145	138	74	28,7	on/off
	921679.003	D 365, H 115	840	25000	180	139	64	28,9	on/off





Comparison LED vs. conventional lamps

### LED 145 W ≈

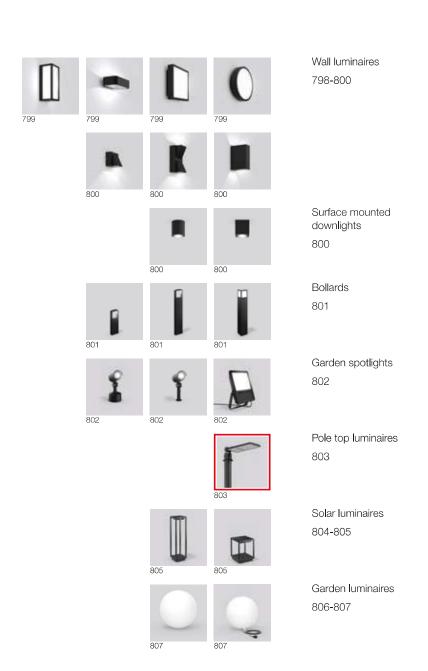
1 x 250 W HST (285 W Psys) 2 x 150 W HIT (320 W Psys)

# LED 180 W ≈

1 x 400 W HIE (440 W Psys)









# HOME + BASIC

Wall luminaires, Surface mounted downlights, Spotlights, Garden spotlights, Bollards, Pole top luminaires

- Housing made of powder-coated die-cast aluminium.
- Architectural design.
- Diffuser out of impact resistant plastic (polycarbonate) or glass.
- High type of protection: IP 54 or IP 65.
- Equipped with LEDs or COB-LEDs of recognised brands.



# Wall luminaires | HB 101

Type of protection: **IP 54** Protection class: I Impact protection: **IK**06

Housing: die-cast aluminium, powder-coated. Diffuser: plastic (polycarbonate), opal. Driver integrated.

Available colour: 31 = anthracite







# Wall luminaires | HB 103

Type of protection: **IP 54**Protection class: I
Impact protection: **I**K06

Housing: die-cast aluminium, powder-coated. Diffuser: plastic (polycarbonate), opal.

Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
Double-side light	output					
611982.0031	L 220, B 130, H 55	830	300	9	33	on/off



# Wall luminaires | HB 107

Type of protection: **IP 54** Protection class: I Impact protection: **IK**03

Housing: die-cast aluminium, powder-coated. Diffuser: plastic (polycarbonate), opal.

Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Wall luminaires						Price Category 12
612140.0031	L 236, B 236, H 68	830	1100	15	73	on/off



# Wall luminaires | HB 108

Type of protection: **IP 54**Protection class: I
Impact protection: **IK**03

Housing: die-cast aluminium, powder-coated. Diffuser: plastic (polycarbonate), opal.

Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
612141.0031	D 250, H 68	830	1050	15	70	on/off



Comparison

LED vs. conventional lamps

LED 9 W ≈

1 x 10 W TC-D (16 W Psys)

LED 13 W ≈

1 x 26 W TC-D (34 W Psys)

LED 15 W ≈

2 x 18 W TC-D (52 W Psys)





# Wall luminaires | HB 105

Type of protection: **IP 54** Protection class: I Impact protection: **I**K06

Housing: die-cast aluminium, powder-coated. Clear glass cover. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 1:
Light emission: o	ne side					
611984.0031	L 80, B 66, H 75	830	110	4	28	on/off



# Wall luminaires | HB 106

Type of protection: **IP 54**Protection class: I
Impact protection: **IK**06

Housing: die-cast aluminium, powder-coated. Clear glass cover. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
Double-side light	output					
611985.0031	L 80, B 66, H 141	830	220	6	37	on/off



# Wall luminaires | HB 113

Type of protection: **IP 54**Protection class: I
Impact protection: **IK**03

Housing: die-cast aluminium, powder-coated. Clear glass cover. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Wall luminaires						Price Category 12
Double-side light ou	tput					
612143.0031	L 90, B 43, H 125	830	280	11	25	on/off



# Surface mounted downlights | HB 110

Type of protection: **IP 54** Protection class: I Impact protection: **I**K06

Housing: die-cast aluminium, powder-coated. Clear glass cover. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Surface mounted	downlights					Price Category 12
931186.0031	D 90, H 95	830	570	9	63	on/off



# Surface mounted downlights | HB 111

Type of protection: **IP 54** Protection class: I Impact protection: **IK**06

Housing: die-cast aluminium, powder-coated. Clear glass cover. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control	
Surface mounted	downlights					Price Categ	ory 12
931187.0031	L 90, B 90, H 94	830	590	9	66	on/off	





# Bollards | HB 202

Type of protection: IP 54 Protection class: I Impact protection: IK06

Bollard for socket mounting. Housing: die-cast aluminium, powder-coated. Diffuser: plastic (polycarbonate), opal. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards						Price Category 12
611975.0031	L 40, B 120, H 350	830	290	9	32	on/off





# Bollards | HB 203

Type of protection: IP 54 Protection class: I Impact protection: IK06

Bollard for socket mounting. Housing: die-cast aluminium, powder-coated. Diffuser: plastic (polycarbonate), opal. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency# [lm/W]	Lighting control
Bollards						Price Category 12
611976.0031	L 40, B 120, H 650	830	290	9	32	on/off



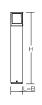
# Bollards | HB 205

Type of protection: IP 54 Protection class: I Impact protection: IK06

Bollard for socket mounting. Housing: die-cast aluminium, powder-coated. Diffuser: plastic (polycarbonate), opal. Driver integrated.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	Lighting control
Bollards						Price Category 12
611978.0031	L 108, B 108, H 650	830	390	12	33	on/off





# Comparison LED vs. conventional lamps

LED 9 W ≈

1 x 20 W QT12 (24 W Psys)

LED 12 W ≈

1 x 35 W QT12 (40 W Psys)

to page 800

# Comparison

LED vs. conventional lamps

LED 4 W ≈

1 x 10 W QT9 (12 W Psys)

LED 6 / 11 W ≈

LED 9 W ≈

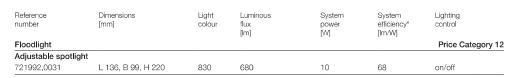


#### Spotlights | HB 109

Type of protection: **IP 65**Protection class: I
Impact protection: **I**K06

 $\label{thm:loss} \mbox{Housing: die-cast aluminium, powder-coated. Clear glass cover. With mains voltage LED module.}$ 

Available colour: 31 = anthracite





#### With in

Impact protection: IK06
Housing: die-cast aluminium, powder-coated. Clear glass cover. With mains voltage LED module.

With integral peg and 5 m power cord including Schuko-plug.

Available colour: 31 = anthracite

Garden spotlights | HB 207 Type of protection: IP 65 Protection class: I

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Garden spotlight	with earth spike					Price Category 12
Adjustable spotlig	ght					
721993.0031	L 136, B 90, H 210	830	680	10	68	on/off



**LED 10 W ≈** 1 x 50 W QT12 (54 W Psys)



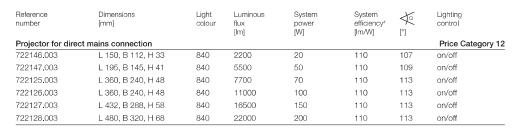
# Spotlights | HB 450

Type of protection: **IP 65**Protection class: I
Impact protection: **IK**08

Housing: die-cast aluminium, powder-coated. Bracket: steel, powder-coated.

Clear glass cover. Pre-wired with 500 mm connection cable.

Available colour: 3 = black





LED 20 W ≈

1 x 35 W HIT (43 W Psys)

LED 50 W ≈

1 x 70 W HIT (80 W Psys)

LED 70 W  $\approx$ 

2 x 50 W HIT (112 W Psys)

LED 100 W ≈

2 x 70 W HIT (159 W Psys)

LED 150 W ≈

2 x 100 W HIT (212 W Psys)

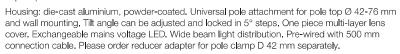
LED 200 W ≈

2 x 150 W HIT (320 W Psys)



# Pole top luminaires | HB 610

Type of protection: **IP 65**Protection class: I
Impact protection: **IK**06



Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Pole top luminaires						Price Category 12
612322.0031	L 445, B 154, H 112	830	5600	50	112	on/off
612323.0031	L 520, B 175, H 112	830	11100	101	110	on/off





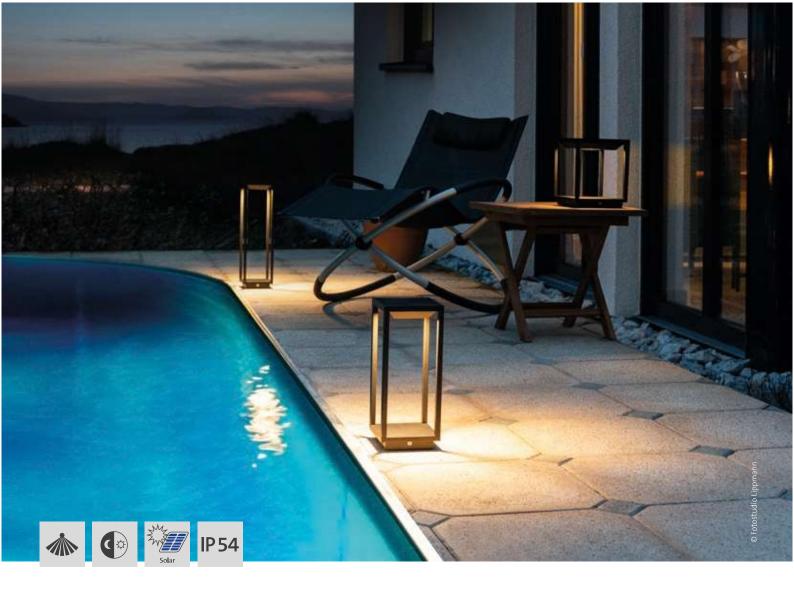
Comparison LED vs. conventional lamps

LED 50 W ≈

1 x 70 W HIT (80 W Psys)

LED 101 W ≈

2 x 70 W HIT (159 W Psys)



# HOME + BASIC

Solar luminaires

- Decorative garden luminaire in square cross section.
- The symmetrical light distribution creates a harmonious lighting image.
- The light source is not directly visible, so creates a pleasant glare-free lighting.
- Thanks to integrated solar panel, no connecting cable required (battery operation).
- Movement detector with 120° detection area, integrated dusk switch.



#### Solar luminaires | HB 402

Type of protection: **IP 54** Protection class: III Impact protection: **IK**02

Housing: die-cast aluminium, powder-coated. With light emission diffuser plastic (polycarbonate) clear. With integrated movement sensor (PIR) and daylight sensor. Solar module for LED with lithium battery. Charging time: at least 6-8 hours at daylight (depending on the place of installation, solar radiation and season). Operating time: 2,5 - 3 hours max. (100 % light output), 20 - 25 hours max. (10 % light output from dusk to dawn), 12 - 15 hours max. (changing light output, light output rises up to 100 % for a duration of 45 seconds when a motion is detected, afterwards it drops down to 10 %). With plastic ground spike.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency <sup>#</sup> [lm/W]	Lighting control
Solar luminaires						Price Category 12
2 W solar module for	or LED with lithium battery	3.7V / 2.2Ah				
612155.0031.19	L 140, B 140, H 500	830	120	2,2	55	on/off







# Solar luminaires | HB 403

Type of protection: **IP 54**Protection class: III
Impact protection: IK02

Housing: die-cast aluminium, powder-coated. With light emission diffuser plastic (polycarbonate) clear. With integrated movement sensor (PIR) and daylight sensor. Solar module for LED with lithium battery. Charging time: at least 6-8 hours at daylight (depending on the place of installation, solar radiation and season). Operating time: 2,5 - 3 hours max. (100% light output), 20 - 25 hours max. (10% light output from dusk to dawn), 12 - 15 hours max. (changing light output, light output rises up to 100% for a duration of 45 seconds when a motion is detected, afterwards it drops down to 10%). With plastic ground spike.

Available colour: 31 = anthracite

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency# [lm/W]	Lighting control
Solar luminaires						Price Category 12
5 W solar module fo	or LED with lithium battery	3.7V / 4.4Ah				
612156.0031.19	L 200, B 200, H 245	830	250	3,5	71	on/off









# HOME + BASIC

Garden luminaires

- Durable plastic base featuring stable opal plastic diffuser (PE), silk finish.
- Good stability due to low balance point.



# Garden luminaires | HB 301, HB 302, HB 303, HB 304

Type of protection: **IP 68**Protection class: III (II while charging)
Impact protection: IK10

Plastic base with opal plastic (polyethylene) diffuser sphere, satin finish. LED with colour change sequencer for battery operation - tuneable coloured light RGB or white. Full charge service life 8 to 12 hours (continuous operation). Light control via IR remote control. External charger for 100 - 240 V / 50 - 60 Hz with an inductive cradle included.

# T T D D



# Charge in dry rooms only!

Available colour: 2 = white

Reference number	Dimensions [mm]	Light colour	System power [W]	System efficiency* [lm/W]	Lighting control
Decorative garder	n luminaires				Price Category 12
612106.002	D 200, H 200	RGBW	9	44	IR
612107.002	D 300, H 300	RGBW	9	44	IR
612108.002	D 400, H 400	RGBW	9	44	IR
612109.002	D 500, H 500	RGBW	9	44	<b>I</b> R

# Garden luminaires | HB 309, HB 310, HB 311

Type of protection: **IP 54**Protection class: II
Impact protection: **I**K06

Plastic base with opal plastic (polyethylene) diffuser sphere, satin finish. Fixture with pedestals and seperate adapter for fixed and ground-spike mounting. With 5 m connection cable including safety plug (Schuko), IP44.



# RGB lamp and accessory for ground installation must be ordered separately!

Available colour: 2 = white

Reference number	Dimensions [mm]		Lighting control
Decorative garde	en luminaires		Price Category 12
612157.002	D 300, H 300	1 x E27 <sup>®</sup> max. 60 W	on/off
612158.002	D 400, H 400	1 x E27º max. 60 W	on/off
612159.002	D 500, H 500	1 x E27 <sup>©</sup> max, 60 W	on/off



Accessories			Price Category 12
982240 003	D 90 H 245	Farth spike	







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# Types of protection according to EN 60598/VDE 0711

1st digit: Protection against solid objects

	IP 2X	Protection against penetration of solid objects ≥ 12.5 mm
	IP 3X	Protection against penetration of solid objects ≥ 2.5 mm
	IP 4X	Protection against penetration of solid objects ≥ 1 mm
*	<b>I</b> P 5X	Protection against dust penetration
-	IP 6X	Dust-proof
Onal aliaite	Drotooti	an against water

2nd digit: Protection against water IP X1 Protected against water drops (vertically falling drops of water) IP X2 Protected against water drops (up to 15° from the vertical) IP X5 Luminaires are protected against water jets IP X6 Protected against rough sea or heavy jets of water ♣ ♣ \_\_m IP X8 Protection against continuous immersion

The type of protection indicated for surface mounted, recessed, pole or pendant luminaires only applies to the defined and/or permitted type of luminaire installation.

#### Electrotechnical variants and additions

Codes are marked by a two-digit suffix separated by a point at the end of the

Code .19	Movement sensor
	With movement sensor (stand-alone or master)
Code .191	Slave luminaire
	for operation with .19 master luminaires
Code .25	Light-sensitive switch
	Integrated light-sensitive switch
Code .730	smart+free
00dc .700	Sinartinee
00de ./00	Light management for wireless light control via Bluetooth®
Code .76	
	Light management for wireless light control via Bluetooth®
	Light management for wireless light control via Bluetooth®  EB, digitally dimmable (DALI)

#### Protection classes

#### Protection class I



Protection against electric shock is not derived solely from the basic insulation. Accessible conductive parts are also connected to the protective conductors on the on-site installation to prevent them from going live if the basic insulation fails.

#### Protection class II



Protection against electric shock is not derived solely from the basic insulation, but also assured by double- or triple-reinforced insulation. Neither has provision been made to connect a protective conductor nor is the protection derived from the construction conditions.

#### Protection class III



Protection against electric shock is derived from using the safety extra-low voltage (SELV), No voltages above SELV (max, 50 V AC or 120 V DC) are generated. Appropriate converters reliably separate SELV circuits in luminaires from other electric circuits.

# IK code: Impact protection

The IK degree of impact protection is a classification for the resistance of housing for electrical equipment to mechanical impacts. It is standardised in accordance with IEC EN 50102 and describes how much impact energy in joules the housing can withstand without breaking. The higher the IK code, the more robust and resistant is the luminaire.

IK class (DIN EN 50102)	Impact energy (joules)
<b>I</b> K00	No impact resistance
IK01	up to 0,15 J
IK02	up to 0,20 J
IK03	up to 0,35 J
IK04	up to 0,50 J
IK05	up to 0,70 J
IK06	up to 1,00 J
IK07	up to 2,00 J
IK08	up to 5,00 J
IK09	up to 10,0 J
IK10	up to 20,0 J

#### Ballasts

Our luminaires are mainly fitted with low-loss ballasts. They are designed for 230 V/50 Hz (ballasts with other specifications available on request).

#### Service life criteria

The luminous flux of LEDs and LED luminaires declines slowly as the operating time increases. The parameters Lx, By describe the condition after a rated time of operation.

In the expression Lx.By, x stands for the remaining proportion of initial luminous flux in %, and y stands for the proportion of LEDs or luminaires that still supply luminous power flux but at a level lower than x%.

These parameters are used, for example, for drawing up maintenance plans for lighting systems. Correctly dimensioned LED luminaires continue to provide light for a long time even after the rated time of operation.

You can find more detailed explanations about the operating performance of LEDs in: Guide to reliable planning with LED lighting published by ZVEI, Revised 3rd edition.

# Binning

The term "binning" describes the classification of LEDs in the ongoing production process, in particular with respect to their colour quality, Light colour (the most similar colour temperature), colour rendering index (Ra) and colour coordinate tolerance (MacAdam's ellipses) are the common terms generally used to describe the binning of an LED.



Abbreviations	s
L	Length
В	Width
Н	Height
D	Diameter
Т	Depth
LP	Pendant length
AL	Extension
BA, LA, DA	Cut out (width, length or Ø)
HE	Required minimum recess depth including ceiling thickness (for mechanical and thermal reasons)
TE	Recess height of luminire (ceiling)
HEL	Recessed height of the luiminaire including ceiling thickness
Le	Recess length
Тд	Operating temperature in °C at the centre of the luminaire surface
ta	Luminaires marked "ta 15°C" are designed for ambient temperatures of 15°C and are also suitable for outdoors.
LVK	Light distribution curve
LED	stands for light emitting diode, an electronic semi-conductor component offering excellent energy efficiency and a long service life.
(I)	Our Edison socket luminaires are mainly compatible with halo- gen and compact fluorescent lamps, as well as LED lamps, as an alternative to conventional general service lamps. All such

our Edison socker furnificates are mainly compatible with malogen and compact fluorescent lamps, as well as LED lamps, as an alternative to conventional general service lamps. All such luminaires are marked in the catalogue with ①, furthermore socket size and maximum lamp wattage are indicated. The indicated maximum wattage refers to the conventional general service lamp. When using non-conventional lamps, please follow the vendor's instructions concerning conversion of the relevant wattage. In determining which light source is suitable, you will need to consider the size of the light source and the number of times it can be switched on and off.

Please note that the "Comparison of LED and conventional lamps" is based on hypothetical averages and not on exact figures.

# Symbol explanations



Directive 2012/19/EU (WEEE)

Electrical and electronic equipment should never be disposed of with general household waste. The devices must be delivered to an appropriate facility to allow for environmentally sound disposal, recovery of recyclable materials and the possibility of re-use.

Registration with the German Clearing House, stiftung ear, under WEEE reg. no.: 15524944

# General information

#### Indoor lighting

For recessed luminaires, the indicated type of protection only applies to luminaires installed in closed, dry ceilings.

The requirements to be met during installation of the luminaire concerning distance and recess height are specified in the relevant installation instructions for open and closed ceilings. These installation instructions are also available at www.rzb-lighting.com.

#### Outdoor lighting

Possibility of condensation

Condensation can arise in outdoor luminaires with a high type of protection.

A vacuum occurs while the luminaires are cooling down and/or after they were switched off or when temperatures fluctuate strongly. This can result in moisture getting in the inside of the luminaire, where it condenses.

As such, the accumulation of condensation in an outdoor luminaire is by no means an indication that the luminaire is not watertight.

# Care of stainless steel luminaires

Stainless steel is corrosion resistant and therefore does not require any organic nor metallic coating to improve its corrosion resistance or appearance.

To keep the luminaires looking good, they should occasionally be treated with a suitable cleaning agent.

# Safety and quality

To reduce development times and produce high-quality, safe and standard-compliant luminaires, we have a modern electrical laboratory that is certified according to the Test Data Acceptance Programme (TDAP) by the VDE Testing and Certification Institute. In it, we carry out measurings according to the relevant guidelines and standards. In addition to running protection-type, glow-wire, heat, temperature, humidity, high-voltage and power tests with the latest test devices, we can also measure electromagnetic compatibility (EMC). Alongside our electrical laboratory, we also have a light laboratory with goniophotometer, spectrometer and flicker meter for measuring photometric data.

All the luminaires in this catalogue, and all our customised luminaires, are produced in accordance with the applicable European directives and regulations and the European standard EN 60598 (VDE 0711). For our extensive product portfolio we have VDE test certificates as well as the ENEC (European Norms Eletrical Certification) safety mark. The manufacture of these luminaires is monitored by regular factory inspections by the VDE Testing and Certification Institute.

From product development, goods entry, production, logistics up to our after sales service, every step of the process is strictly controlled, continuously optimised and, if necessary redefined. Our quality management system has been continuously certified since 1996.

RZB is certified according to DIN EN ISO 9001:2015.

# Safety marks



The ENEC mark is a European test and certification mark for luminaires and electrical luminaire components.



Putting on the CE mark on our luminaires we certify that our products fulfill the basic requirements of European regulations and standards. The respective CE declaration of conformity is available for download on our website www.rzb-lighting.com within the download section of each product.



# Explanation of values indicated in this catalogue

#### Light colour

To indicate the "light colour" and the colour rendering quality of a light source, the lighting industry uses a three-digit light colour code, where the first digit defines the colour rendering index (CRI) while the second and third denote the correlated colour temperature of the light emitted by the light source in Kelvin [K].

#### Examples:



# Luminous flux [lm]

is defined as the total quantity of light emitted by a luminaire and is measured in lumens [lm].

The values indicated in this catalogue are rated values.

# System power [W]

Indicates the luminaire 's total power requirements, i.e. the total watts [W] required to power the light source and any ballast or driver needed for operation. The values indicated in this catalogue are rated values.

# System efficiency [lm/W]

System efficiency describes the ratio of luminaire luminous flux (Im) to system power (W) used. Power losses due to control gear are already taken into account in the Im/W value. For multi-lumen versions, the nominal value is indicated.

#### Beam angle (≼) [°]

also called half-peak angle of a luminaire is defined as that part of the beam where the light level varies between its peak intensity and half the peak level. This angle indicates whether the light distribution of a luminaire is narrow, medium or wide beam.

superspot	<10°
spot	10°-20°
medium	>20°-35°
flood	>35°-45°
wide flood	>45°-70°
extra wide flood	>70°

#### Lighting control

Indicates whether the luminaire is dimmable and which system is used.

#### **UGR**

The UGR value (Unified Glare Rating) allows for the rating of direct glare resulting from indoor lighting installations. The higher the UGR value, the higher is the risk of glare. Standardized limit values are defined for specific types of activities and areas and must not be exceeded (see e.g. DIN EN 12464-1).



This luminaire is also available as self-contained and/or emergency luminaire for central battery systems according to EN 60598 2-22 - further information is available in the Emergency lighting catalogue.

# System power LED ≈ Conventional lamp (system power)

This comparison is for a better orientation with respect to the light output of LED luminaires based on the comparison of luminous flux. The specified system power of the illustrated LED luminaires is compared with the appropriate luminaires with conventional lamps. To make the power consumption clear, the system power (Psys) of the conventional lamps is given in brackets.

# Comparison LED vs. conventional lamps

# LED 28 W ≈

2 x 26 W TC-D (68 W Psys) 1 x 40 W T16-R (43 W Psys)

# LED 35 W ≈

4 x 18 W TC-D (104 W Psys) 1 x 55 W T16-R (60 W Psys)





# Recessed downlights | TOLEDO FLAT round

Type of protection: **IP 54**Protection class: II
Ceiling thickness S: 1-20 mm
Impact protection: **IK**06

Housing: die-cast aluminium. Lightguide and diffuser made of non-yellowing plastic (PMMA). Ceiling installation with spring system. Mounting depth depends on ceiling strength. Including separate LED converter with connecting cable 250 mm.

Available colour: 2 = white

Versions with Casambi smart+free Bluetooth® control for wireless network and operation using Android / iOS devices, free app available for download.

Reference number	Dimensions [mm]	Light colour	Luminous flux [lm]	System power [W]	System efficiency* [lm/W]	<b>₹</b>	Lighting control	亢	
Recessed downli	ghts						F	rice C	ategory 21
Diffuser: plastic, o	opal								
Ceiling cut out DA	\ 128 mm								
901451.002 .Q	D 148, H 2, HE 27-53	830	470	5	94	110	on/off	1	
901451.002.76	D 148, H 2, HE 31-53	830	470	5	94	110	DALI		
901451.002.1	D 148, H 2, HE 27-53	840	530	5	106	110	on/off	1	
901451.002.1.76	D 148, H 2, HE 31-53	840	530	5	106	110	DAL		
Ceiling cut out DA	4 170 mm								
901452.002 .Q	D 190, H 2, HE 27-53	830	780	7,7	102	110	on/off	1	
901452.002.76	D 190, H 2, HE 31-53	830	780	7,7	102	110	DALI		
901452.002.1 .Q	D 190, H 2, HE 27-53	840	840	7,7	110		on/off	1	
901452.002.1.76	D 190, H 2, HE 31-53	840	840	7,7	110		DAL		
Ceiling cut out DA	A 234 mm								
901453.002 .Q	D 255, H 3, HE 30-56	830	1650	17	98	110	on/off	1	
901453.002.76 .Q	D 255, H 3, HE 31-56	830	1650	17	98	110	DALI		
901453.002.1 .Q	D 255, H 3, HE 30-56	840	1800	17	106	110	on/off	1	
901453.002.1.76	Q D 255, H 3, HE 31-56	840	1800	17	106	110	DALI		
Tunable White - 2	700 K to 6500 K								
901666.002.76	D 255, H 3, HE 30-56	827-865	1700	19	90	110	DALI		
901666.002.730	D 255, H 3, HE 55-75	827-865	1700	19	90	110	smart+free		
Ceiling cut out DA	A 288 mm								
901484.002 .Q	D 317, H 3, HE 31-54	830	2150	22	98	108	on/off	1	
901484.002.76	D 317, H 3, HE 31-54	830	2150	22	98	108	DAL		
901484.002.1 .Q	D 317, H 3, HE 31-54	840	2250	22	103	108	on/off	1	
901484.002.1.76	D 317, H 3, HE 31-54	840	2250	22	103	108	DALI		
Tunable White - 2	700 K to 6500 K								
901667.002.76	D 317, H 3, HE 31-54	827-865	2450	24	105	108	DALI		
901667.002.730	D 317, H 3, HE 55-75	827-865	2350	24	98	108	smart+free		
Ceiling cut out DA									
901585.002	D 495, H 6, HE 40-59	830	3550	30	119	113	on/off		
901585.002.76	D 495, H 6, HE 40-59	830	3550	30	119	113	DALI		
901585.002.1	D 495, H 6, HE 40-59	840	3600	30	120	113	on/off		
901585.002.1.76	D 495, H 6, HE 40-59	840	3600	30	120	113	DALI		
Tunable White - 2									
901668.002.76	D 495, H 6, HE 35-55	827-865	3150	30	105	113	DALI		
901668.002.730	D 495, H 6, HE 55-75	827-865	3150	30	105	113	smart+free		
Diffuser: plastic, r	microprismatic								
Ceiling cut out DA	\ 470 mm								
901586.002	D 495, H 6, HE 40-59	830	3450	30	115	88	on/off		
901586.002.76	D 495, H 6, HE 40-59	830	3450	30	115	88	DALI		
901586.002.1	D 495, H 6, HE 40-59	840	3550	30	119	88	on/off		
901586.002.1.76	D 495, H 6, HE 40-59	840	3550	30	119	88	DALI		
Tunable White - 2	700 K to 6500 K								
901669.002.76	D 495, H 6, HE 35-55	827-865	2900	30	97	88	DAL		
901669.002.730	D 495, H 6, HE 55-75	827-865	2900	30	97	88	smart+free		





# Comparison LED vs. conventional lamps

LED 5 W ≈

1 x 10 W TC-D (16 W Psys)

LED 7,7 W ≈

1 x 18 W TC-D (26 W Psys)

LED 17 / 19 W ≈

1 x 32 W TC-TEL (36 W Psys)

LED 22 / 24 W  $\approx$ 

2 x 26 W TC-D (68 W Psys)

LED 30 W ≈

3 x 26 W TC-D (102 W Psys)



This luminaire is also available as selfcontained and/or emergency luminaire for central battery systems according to EN 60598 2-22.



# Chemical Resistance

to the plastics used in the manufactured luminaires

Chemical Agents	max. concen- tration	PC	PMMA
Acetone		-	-
Battery Acid		0	-
Aliphate. Hydrocarbons		+	0
Alcohol	30%	+	+
Alcohol concentrate		-	-
Aluminium sulphate	10%	+	
Formic acid	30%	-	0
Ammonia	5%	-	+
Ammonia	25%	-	+
Aniline		-	-
Aromatic hydrocarbons		-	-
Arsenic acid		+	+
Ether		-	-
Caustic potash		-	
Benzene		-	-
Beer		+	+
Blood		+	+
Bromic acid		-	-
Calcium Chloride		+	+
Chloroform		-	-
Chlorophenol		-	-
Chromic acid	40%	0	0
Diesel fuel		0	+
Dioxane		-	-
Acetic acid	5%	+	0
Acetic acid	30%	+	-
Ethyl acetate (ester)		-	-
Ethanol	30%	+	0
Ethanol	50%	+	-
Ethyl acetate		-	-
Ethyl alcohol		+	0
Mineral fat		-	+
Vegetable fat		-	+
Animal fat		-	+
Glycerin		0	+
Glycol		+	+
Glysantin		+	+
Glycerine		0	+
Fuel oil		-	0
Caustic potash	30%	-	+
Potassium nitrate		+	+
milk of lime		0	+
Ketone		-	-
Saline solution	20%	+	+
Carbon dioxide		+	+
Carbon monoxide		+	+

Chemical Agents	max, concen- tration	PC	PMMA
Hydrocarbons		-	0
Lye		0	+
Lysol		-	-
Sea water		+	+
Methanol		-	-
Methyl chloride		-	-
Lactic acid, aqueous	10%	+	+
Mineral oils		+	+
Sodium hydroxide solution	2%	-	+
Sodium hydroxide solution	10%	-	+
Regular petrol (ROZ 91)		0	-
Petroleum ether		0	+
Phenol		-	-
Nitric acid	10%	+	+
Nitric acid	20%	0	0
Hydrochloric acid	5%	+	+
Hydrochloric acid	15%	+	+
Hydrochloric acid	20%	0	+
Sulfur dioxide		0	-
Sulphuric acid	30%	+	+
Sulphuric acid	50%	+	+
Sulphuric acid	70%	0	0
Hydrogen sulfide		+	+
Soap sud		+	+
Silicone oils		+	0
Soda bleach		+	+
Premium petrol		-	+
Turpentine oil		0	О
Carbon tetrachloride		-	-
Toluene		-	-
Trichloroethylene		-	-
Hydrogen peroxide	30%	0	-
Hydrogen sulfide		+	+
Xylene / Dimethylbenzene		-	-
Citric acid	20%	+	+

- + resistant
- o partially resistant
- non-resistant



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01-8613.002	573, 583, 590	221167.00X	644	311611.002.8	194	311931.002	316
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10-2334	245	221174.002	789	311612.002.6.19	195	311934.002	315
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as of November 17, 2020

#### Article I: General provisions

- 1. All legal relationships between Supplier and Purchaser with regard to deliveries and/or performance by Supplier ("Deliveries") are governed solely by these terms and conditions. Purchaser's general terms and conditions of business only apply if Supplier has expressly acknowledged them in writing. The scope of Deliveries is governed by the mutually agreed written declarations.
- 2. Supplier reserves the unrestricted rights of use to any quotations, drawings and other literature ("Documents") under possession and copyright law. Documents may only be made accessible to third parties with Supplier's prior consent. If Supplier is not awarded the contract, said Documents are to be returned immediately on request. Sentences 1 and 2 apply accordingly for Purchaser's Documents, although these may be made accessible to those third parties to whom Supplier has permissibly transferred Deliveries.
- 3. Purchaser is granted the non-exclusive right to utilise the standard software and firmware with the performance characteristics agreed, without modifying the same, on the devices specified. Purchaser may make a back-up copy of the standard software without obtaining express agreement.
- 4. Partial shipments are permissible.
- The term "claims for damages" in these Terms and Conditions of Delivery also encompasses claims for reimbursement of futile expenses.

#### Article II: Prices, terms of payment and offsetting

- Prices are quoted ex works excluding packaging plus any applicable statutory sales tax and other taxes and duties that may be levied.
- If Supplier is responsible for setup or assembly, and unless otherwise agreed, Purchaser is responsible for all necessary ancillary costs, such as travel and shipping costs and accommodation allowances, in addition to the agreed payment.
- 3. Payments are due to Supplier's designated paying agent free of charges.
- 4. Purchaser may only offset against undisputed or legally established receivables.

#### Article III: Retention of title and payment protection

- Items representing Deliveries (retained goods) remain the property of Supplier until Purchaser has satisfied each and every claim of Supplier under the business relationship.
- 2. For the duration of retention of title, Purchaser may not pledge the retained goods or use them as security, and they may only be resold by resellers in the ordinary course of their business and only on condition that the reseller receives payment from its customer or makes the transfer of ownership to the customer dependent upon the customer fulfilling its payment obligations.
- Purchaser agrees to inform Supplier immediately and in writing of any seizures, confiscations or other disposals or acts of intervention by third parties.
- 4. If Purchaser fails to fulfil its duties, especially in rendering due payments, Supplier is entitled to take back the goods and cancel the contract if Purchaser fails to provide remedy within a reasonable period set by Supplier. Purchaser is obliged to relinquish the goods. Supplier's demand for return of the goods, exercise of retention of title, or seizure of the retained goods does not constitute termination of the contract unless Supplier expressly declares the same.

#### Article IV: Delivery periods; delays

- Adherence to stipulated delivery periods is conditional upon timely receipt of all documents, necessary permits and releases, especially of plans to be provided by Purchaser, and upon the latter's fulfilment of the agreed terms of payment and other obligations. Failure to meet these conditions on time will extend the delivery periods; this is not applicable if Supplier is responsible for the delay.
- 2. If failure to adhere to the delivery periods is due to
  - a) force majeure, e.g. mobilisation, war, terrorist attacks, rebellion or similar events (e.g. strike, lockout),
  - b) virus and other third-party attacks on Supplier's IT systems despite Supplier exercising due caution in implementing safeguards,
  - c) hindrances under German, Swiss, US and other applicable national, EU or international laws governing external trade, or other circumstances beyond Supplier's control,
  - d) late or incorrect delivery to Supplier, the deadlines will be extended by a reasonable period.



- 3. If Supplier delays delivery, Purchaser may subject to provision of evidence of any loss suffered – demand compensation for each complete week of delay of 0.5% (up to a maximum of 5%) of the price for the part of the Deliveries that could not be put to intended use as a result of the delay.
- 4. Purchaser's claims for damages on grounds of late Deliveries as well as claims for damages in lieu of performance [Note: this issue must be checked under Swiss law] that exceed the limits specified in 3. above are excluded in all cases of delayed Deliveries, even after Supplier has failed to meet a deadline set for delivery. The aforementioned does not apply in cases of unlawful intent or gross negligence on Supplier's part, nor if it contravenes mandatory law. Purchaser may only withdraw from the contract if Supplier is at fault with regard to the late Deliveries and if Supplier has failed to meet a previously specified, reasonable deadline.
- At Supplier's request, Purchaser must within a reasonable period state whether it wishes to withdraw from the contract due to the delay in Deliveries, or insists on the Deliveries.
- 6. If dispatch or delivery is delayed at Purchaser's request by more than one month after giving notice of readiness for dispatch, Purchaser may be charged storage costs of 0.5% of the price of the Deliveries for every additional month or part thereof. The parties to the contract are at liberty to prove the incurrence of higher or lower storage costs.

#### Article V: Transfer of risk

- If not expressly otherwise agreed upon in writing between the Purchaser and the Supplier, all goods shall be delivered FCA RZB premises Bamberg (Incoterm 2020) at the time when the goods are loaded onto the Purchaser's transport.
- The risk passes to Purchaser if the dispatch, delivery, commencement or execution of setup or assembly, adoption into Purchaser's own operation or trial run is delayed for reasons for which Purchaser is responsible, or if the latter otherwise delays acceptance of the goods.

#### Article VI: Acceptance

Purchaser may not refuse to accept Deliveries on grounds of minor defects.

#### Article VII: Material defects

- 1. The warranty period is 12 months. It commences when the Deliveries leave the factory or, if appropriate, following agreed acceptance of the Deliveries or, if Supplier is responsible for assembly, upon completion of the same. If dispatch, acceptance or assembly are delayed for reasons beyond Supplier's control, the warranty lapses at the latest 18 months after notification of readiness for dispatch. The warranty lapses prematurely in case of unauthorised modifications or repairs by Purchaser or third parties, or failure by Purchaser to immediately take all suitable steps to mitigate the damage in the event of a defect and to give Supplier the opportunity to remedy the defect.
- 2. During the warranty period and at Purchaser's request, Supplier undertakes to either remedy or replace at Supplier's discretion as quickly as possible any and all parts of Supplier's Deliveries that are demonstrably damaged or unusable at the time of risk transfer due to material defects, design flaws or poor workmanship. Purchaser's warranty claims are excluded after the warranty period has lapsed. Replaced parts become Supplier's property unless Supplier expressly waives its right of title. Supplier must bear all the rectification costs incurred at its facility. If rectification is not possible at Supplier's facility, Purchaser must bear the associated costs to the extent that they exceed the normal transport and staff costs, travel and accommodation expenses, and the cost of installation and disassembly of the defective parts.
- 3. Damages that are not demonstrably due to material defects, design flaws or poor workmanship, e.g. normal wear, poor maintenance, failure to follow operating instructions, excessive stress, unsuitable operating equipment, chemical or electrolytic influences, construction or assembly work not performed by Supplier, and any other reasons beyond Supplier's control, are excluded from Supplier's warranty and liability.
- Supplier only accepts liability for supplies from subcontractors designated by Purchaser within the framework of the warranty obligations of the relevant subcontractors.
- Purchaser can claim no rights or entitlements for material, design or workmanship defects above and beyond those listed in 1, to 4, above.
- Guaranteed properties must be expressly designated accordingly. The provisions governing material defects in Article VII 1. 5, above apply accordingly.



#### Article VIII: Industrial property rights and copyrights; defects of title

- 1. Unless otherwise agreed, Supplier's obligation to execute the Deliveries free of third party industrial property rights and copyrights ("Property Rights") only applies in the country of the delivery location. If a third party raises justified claims against Purchaser on the grounds of infringement of Property Rights by Deliveries executed by Supplier and used in accordance with the contract, Supplier's liability to Purchaser within the period set out in Art. VII 1. above is as follows:
  - a) At its own discretion and expense, Supplier can acquire the right of use for the relevant Deliveries, modify the Deliveries so that they no longer infringe the Property Rights, or replace them. If it is not possible for Supplier to reasonably do so, Purchaser is entitled to exercise its statutory rights of cancellation or price reduction.
  - b) Supplier's obligation to pay damages is governed by Art. XII.
  - c) The aforementioned obligations of Supplier are only applicable if Purchaser promptly notifies Supplier in writing of any claims filed by a third party, does not concede an infringement, and all defence measures and settlement negotiations remain reserved for Supplier. If Purchaser discontinues the use of the Deliveries on grounds of loss mitigation or for other good reason, it must notify the third party that the discontinuation of use does not constitute acknowledgement of an infringement of Property Rights.
- 2. Purchaser is not entitled to assert claims for any infringement of Property Rights for which Purchaser is responsible.
- 3. Nor is Purchaser entitled to assert claims if the infringement of Property Rights results from specifications made by the Purchaser, usage that Supplier could not have foreseen, or is caused by the Deliveries being modified by Purchaser or used in conjunction with products not provided by Supplier.
- 4. If Property Rights are infringed, the provisions of Art. VIII apply accordingly for Purchaser claims governed by 1 a) above.
- 5. In the event of other defects in title, the provisions of Art. VIII apply accordingly.
- Any other claims or claims not provided for in this Art. IX asserted by Purchaser against Supplier and the latter's agents on grounds of defect of title are excluded.

## Article IX: Conditional performance

- Contract performance is conditional upon the absence of any hindrances under German, Swiss, US or any other applicable national, EU or international laws governing external trade, embargoes or any other sanctions.
- Purchaser undertakes to provide all information and documentation necessary to enable export, shipment and import.

# Article X: Impossibility of performance; contract amendments

- 1. If Deliveries prove to be impossible, Purchaser is entitled to claim damages unless Supplier is not responsible for the impossibility. However, Purchaser's entitlement to damages is limited to 10% of the value of the part of the Deliveries that cannot be put to its intended use due to the impossibility. This limitation does not apply in cases of unlawful intent or gross negligence on Supplier's part, but does apply to unlawful intent or gross negligence on the part of Supplier's agents.
- 2. The parties agree to amend the contract appropriately and in good faith if events as defined in Art. IV, 2 a) c) above substantially alter the economic significance or content of the Deliveries, or considerably impact Supplier's business. If this is not economically viable, Supplier is entitled to withdraw from the contract. The same applies if the requisite export permits are not granted or cannot be used. If Supplier wishes to exercise its right of rescission, it must inform Purchaser immediately on learning the implications of the event concerned, even if an extension of the delivery period had initially been agreed with Purchaser.

#### Article XI: Returns of goods

- The possibility of cancelling in full, or in part, the order is only given if case of agreement of the Supplier. In that case, we are entitled to invoice 30% of the order value in order to cover our costs. This applies only to standard products from our portfolio. In case of custom made products, we will invoice 100% of the order value.
- Goods that have already been delivered may be returned if at all in a re-sellable condition and in their original packaging. Modified or custom products are not returnable.
- 3. In the event that we consent to the return, we will issue a return slip which must be included with the return. Standard and undamaged goods in original packaging will be credited at a maximum of 70% of the invoiced price. All reconditioning, freight and packaging costs must, moreover, be borne by the purchaser. Returns are always shipped at the risk of the customer returning the goods. No credit will be issued for goods returned without a written declaration of consent by RZB. Such goods may be disposed of at the sender's expense.

#### Article XII: Place of jurisdiction and applicable law

- 1. All disputes, differences in opinion or claims arising from or in connection with this contract, including the validity, invalidity, infringement or cancellation of the same, are subject to final settlement under the Rules of Arbitration of the International Chamber of Commerce (ICC). The Court of Arbitration must be composed of one or three arbitrators. If the Court is composed of three arbitrators, each party appoints one arbitrator, who must be confirmed by the ICC. These two arbitrators nominate the third arbitrator within thirty (30) days of their own appointment. If the two arbitrators are unable to agree on a third arbitrator within this period, the ICC will appoint the third arbitrator. The responsible Court of Arbitration is [Zurich] unless the parties agree on a different venue. Arbitration proceedings must be conducted in German.
- This contract and its interpretation are subject to pertinent Swiss laws to the exclusion of the United Nations Convention on Contracts for the International Sale of Goods (CISG).

#### Article XIII: Contract validity

If individual provisions of this contract prove to be invalid, the remaining parts are nevertheless binding unless continuation of the contract would constitute undue hardship for one of the parties.





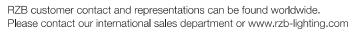


<b>3</b> RZB SWITZERLAND	<b></b> RZB AUSTRIA	€ RZB FRANCE	€ RZB ESPAÑA
RZB Swiss Lighting AG	RZB Lighting Austria GmbH	RZB Lighting France Sarl	RZB Lighting Spain
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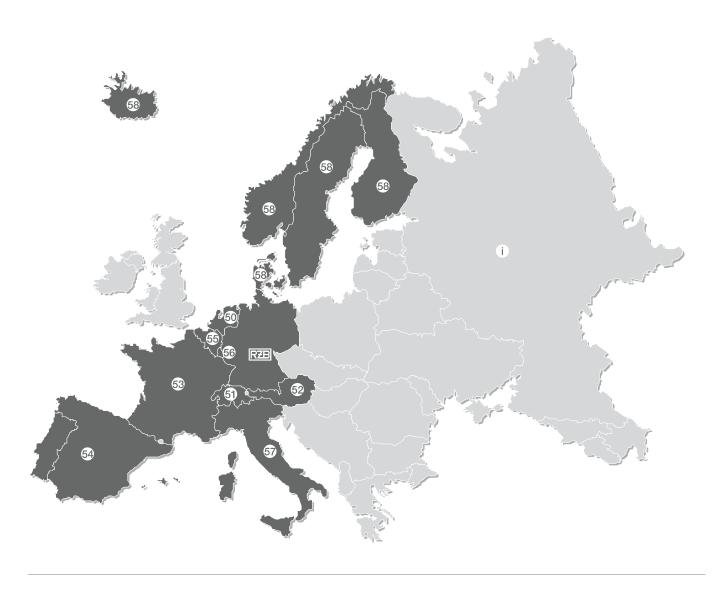
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