

# Lighting Systems



**REGIOLUX**

# Lighting Systems

functional - effective - efficient

## Exclusion of Liability

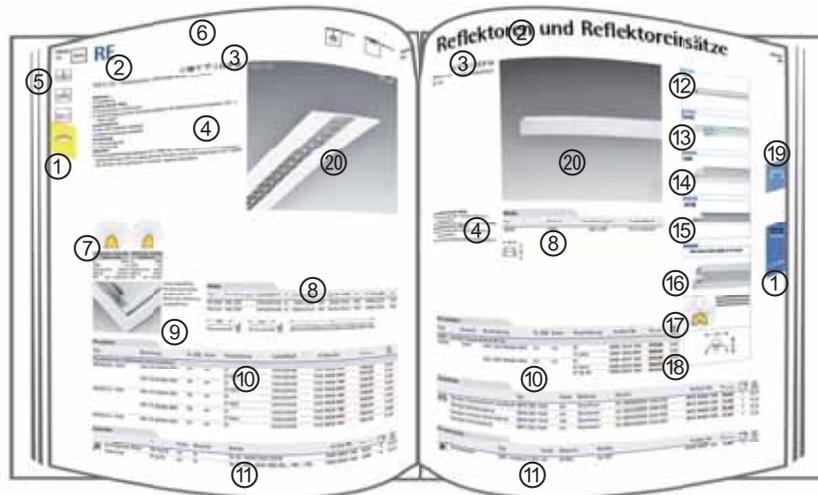
Illustrations, dimensions and weights in our catalogues, price lists and quotations are non-binding. Subject to technical changes, errors and color deviations. All luminaires have been designed for 230V 50Hz mains connection and ambient conditions according to DIN EN 60598 unless otherwise stated, and are supplied without lamps unless otherwise stated. Most of the indications with regard to certifications are presented in our catalogue in a general form. Verification with regard to products can be easily carried out on our website.

Because of the dynamics in the technical development especially in the field of LED modules and their drivers, the information in this paper can only be a snapshot of the current state and are therefore legally not binding. Please refer to our web site for current product specifications.

We point out that the orderer recognises our delivery and payment conditions unless he/she objects in writing when sending his/her order.

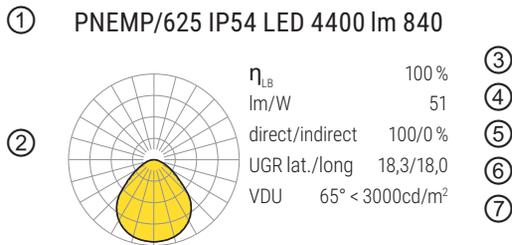


# Description of page layout



- ① Product group
- ② Luminaire family, type
- ③ Certification: Overview and explanation in Technical information chapter 8: 8.6 Certification, insulation class and protection rating
- ④ Description with regard to lighting technology, housing, miscellaneous
- ⑤ Indications with regard to ceiling systems
- ⑥ Reference to accessories pages and products in other product groups
- ⑦ Light distribution curve (LVK) with data with regard to lighting technology of the reference product.  
Explanations in the following area Explanations
- ⑧ Dimensional table and sectional drawings: Explanations of the variables in the following area Explanations
- ⑨ Detail image with explanation
- ⑩ Product table: Explanations of the abbreviations in the following area Explanations
- ⑪ Table with spare parts / accessories (if available): Explanations of the abbreviations in the following area Explanations
- ⑫ Combination quick-fit mounting system: Component mounting rail
- ⑬ Combination quick-fit mounting system: Component device mount
- ⑭ Combination quick-fit mounting system: Component light direction
- ⑮ Combination quick-fit mounting system: Component light direction insert
- ⑯ Quick-fit mounting system: Combination
- ⑰ Quick-fit mounting system: Light distribution curve of the combination, explanations in the following area Explanations
- ⑱ Quick-fit mounting system: Dimensioned drawing of the combination
- ⑲ Indication to the product area mounting rail / device mount / light direction
- ⑳ Product image with icons and indication for functions and features

## Explanation of lighting technological data



### 1. Configuration

Possible deviations of luminous flux between magnetic ballasts (Llb) and electronic ballasts (ECG) are not considered.

### 2. Luminous intensity distribution

Luminous intensity distribution curves shown in the catalogue are represented according to DIN 5032. Only both primary planes are displayed: 0°/180° planes (at right angles to luminaire axis) as a continuous line and 90°/270° (parallel to luminaire axis) as a dotted line. Curves are scaled to represent 1000 lumens of lamp luminous flux.

### 3. Light output ratios $\eta_{LB}$

Light output ratios specified for each luminaire are calculated from the relation of luminous flux  $\Phi_L(\tau)$  emitted from the luminaire with an ambient luminaire temperature  $\tau_a = 25^\circ\text{C}$  and further standardised conditions to the sum of measured luminous flux of the lamps with open distribution transferred individually to the luminaire ballast.

In the case of LED luminaires, the principle of absolute photometry is increasingly applied. In this case, the light output ratio is indicated with 100%. Additionally, the luminous flux is indicated in the form of the measured luminous flux of the luminaire.

### 4. Luminous efficiency

The luminous efficiency is the luminous flux of a bulb or luminaire related to its electrical power consumption.

In the case of LED luminaires presented according to the principle of absolute photometry (light output ratio 100%), the indication refers to the lumen output of the luminaire which is described by the ratio between luminous flux of the luminaire and system performance of the luminaire.

### 5. Direct and indirect light components

For evaluating the efficiency and lighting effect of a lighting system within a room, specification of the direct and indirect beam components is helpful.

### 6. Glare reduction according to UGR method

According to DIN EN 12464-1, not only is reflected glare considered but also direct glare within a specific room. As a standard evaluation system the UGR (Unified Glare Rating) method was introduced in Europe as part of the DIN EN 12464-1 standard. Details concerning the UGR method are described in the CIE 117 publication. The UGR values (lat. and long) of a lighting installation, determined according a table for the position of a standard viewer, are not permitted to exceed the value specified by the standard. In order to compare the direct glare of various luminaires, UGR values of a number of manufacturers are specified with reference to a so-called standard room. Please note that a correct comparison is only possible if all room conditions are identical. In addition it must be noted that UGR values for a real installation may significantly differ to those of the standard room.

Values given are based upon the following definitions.

Room dimensions:

Distance of eye level to luminaire level: H

Room width X = 4H

Room length Y = 8H

Standard reflection factors (0,7 ceiling; 0,5 walls; 0,2 floor)

Luminaire arrangement parallel to Y axis Luminaire distances:

Distance of luminaire to luminaire (spacing) S = 0,25H

Distance of luminaire to wall  $\frac{1}{2} S = 0,125H$

## Explanation of lighting technological data

### 7. Suitability for VDU workstations

Here, the suitability of luminaires for VDU workstations according to DIN EN 12464-1 is specified. The degree number means that the luminance in all luminaire planes beyond that angle does not exceed certain limitation values. Depending on screen quality and screen visualisation, the norm specifies different limitation values. In case of a positive display on screens with an own luminance (< 200 cd/m<sup>2</sup>), a maximum of 1500 cd/m<sup>2</sup> and in case of screens with a high luminance (> 200 cd/m<sup>2</sup>), a maximum of 3000 cd/m<sup>2</sup> is permissible.

## Control gear

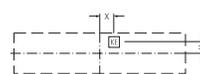
Abbr.	Description
ECG	Electronic ballast
Llb	Low-loss ballast
ind	Inductive, must be compensated on-site
multi	Multiwatt T5
ED	Electronic driver, not dimmable
EDM	Electronic driver Multi, not dimmable (8 or 16 adjustable lighting levels)
DALI	Electronic driver, DALI, dimmable
DALI DT8	Electronic driver, DALI, dimmable, change of light color (Tunable white)
LC.	Device with integrated LC components of special type
M.	Master unit Typ 1-N
S.	Sensor unit Typ 1-N
NL-B1, NL-B3	Emergency light single battery; 1=1h, 3=3h

# Explanations

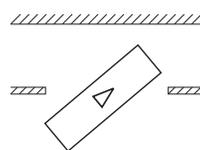
## Definition of measurement table variables

Abbr.	Description
A	Distance between the individual luminaires
A1	Fixing distance in case of single mounting
A2	Fixing distance for first or last luminaire in case of light run mounting
A3	Fixing distance for the middle luminaires or between the luminaires in case of light run mounting
A4	Fixing distance (width)
B	Width
D	Diameter
DA	Diameter of cut for recessed luminaires
DA <sub>b</sub>	Width of cut for recessed luminaires
DA <sub>L</sub>	Length of cut for recessed luminaires
DS min	Minimum ceiling thickness with suspended ceiling
DS max	Maximum ceiling thickness with suspended ceiling
Db	Sensor detection diameter
Dr	Sensor detection diameter ideal movement towards the sensor
Ds	Sensor detection diameter seated activity
Dt	Sensor detection diameter tangential movement parallel towards the sensor
Et	Mounting depth (necessary depth for luminaire mounting)
Et min	Minimum mounting depth (necessary depth for luminaire mounting during celing construction)
FB	Width of luminaire groundplate
FD	Diameter of luminaire groundplate
FL	Length of luminaire groundplate
H	Height
HS	Installation height of sensor
KB	Width of luminaire head or ballast box
KD	Diameter of luminaire head or ballast box
KE	Cable infeed
KH	Height of luminaire head or ballast box
KL	Length of luminaire head or ballast box
L	Length
L2	Additional length
MB	Modul (axes) width
ML	Modul (axes) length
P	Suspension length
Pmin	Minimum suspension length
Pmax	Maximum suspension length
P <sub>sys</sub>	Luminaire system performance
T	Depth
W	Wall distance
X	Distance from middel of the luminaire to the electrical feed in (X direction = length)
Y	Distance from middel of the luminaire to the electrical feed in (Y direction = width)

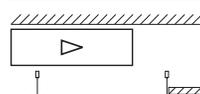
## Description of measurement table variables



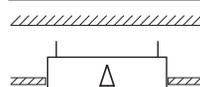
1. Positioning of electrical feed in.



2. Required installation depth "Et" for swivelling of luminaire in visible T rail constructions (lay-in luminaires). Required installation depth "Et" for swivelling luminaire and control gear (if applicable) through ceiling cut-out (clamp mounting).



3. Reduced installation depth "Et min" with aligning of luminaire above T rail construction (during ceiling construction).



4. Required installation depth "Et" for swivelling of mounting bracket (clamp mounting).

## Ceiling systems



Ceilings with visible T-rails



For concealed symmetrical rail constructions



For concealed asymmetrical rail constructions



For recessed ceilings



For panel ceilings, module 100, 150, 200

## Cross references



Reference accessories



Reference mounting rail installation



Reference mounting note



Reference product groups

## Icons / functions features



Configuraton with sensor available



Configuraton with emergency light unit available



Luminaires for HCL (human Centric Lighting)



Luminaires suitable for Advanced Services



Luminaires suitable for IoT (Internet of Things)



LED (included)



Beam angle

Materials	
Abbr.	Description
A03S-U	Recognised national cable type: measurement voltage 300 V to 300 V; Silicone rubber isolation material, heat-resistant to +180° C; Single-wire conductor, round
ABS	Acrylonitrile Butadiene Styrene Copolymerisate
Al	Aluminium
AlMgSi	Aluminium magnesium silicon (extruded section)
Cu	Copper
EPDM	Synthetic rubber
Glass	Glass
Glass matt	Matt glass
Glass (ESG)	Tempered single-pane safety glass
H03VV-F	Harmonised cable: measurement voltage 300 V to 300 V; Isolation material PVC, heat-resistant to +70° C; sheathing material PVC, heat-resistant to +70° C; fine-strand conductor, flexible
H05HH-F	Harmonised cable: measurement voltage 300 V to 500 V; Isolation material flat, divisible cable; sheathing material flat, divisible cable; fine-strand conductor, flexible
H05S-U	Harmonised cable: measurement voltage 300 V to 500 V; silicone rubber isolation material, heat-resistant to +180° C; single-wire conductor, round
H05V2-U	Harmonised cable: measurement voltage 300 V to 500 V; Isolation material PVC, heat-resistant to +90° C; single-wire conductor, round
H05VV-F	Harmonised cable: measurement voltage 300 V to 500 V; isolation material PVC, heat-resistant to +70° C; sheathing material PVC, heat-resistant to +70° C; fine-strand conductor, flexible
H07V2-U	Harmonised cable: measurement voltage 450 V to 750 V; isolation material PVC, heat-resistant to +90° C; single-wire conductor, round
Inox	Stainless steel
Inox V2A	Stainless steel (alloy type 1.4301 or X5CrNi18-10)
Inox V4A	Stainless steel (alloy type 1.4401 or X5CrNiMo17-12-2)
Mix	Diverse materials
PA	Polyamide
PC	Polycarbonate
PMMA	Polymethylmethacrylate (acrylic glass)
Polymer	plastic (not defined specifically)
Polymer clear	Plastic (crystal clear)
Reinforced polymer	Plastic (with admixture of reinforcing materials)
PS	Polystyrene
PVC	Polyvinyl chloride
St	Steel
StZn	Steel with zinc coating

Colour code	
Abbr.	Colour
al	aluminium
aeH	aluminium high gloss
aeS	aluminium matt gloss
aeN	aluminium natural anodized
ap	aluminium plate finish
am	anthracite metallic
bl	blue
bl/cr	blue chrome
ce	cream
cr	chrome
eg	brushed stainless steel
ge	yellow
ge/cr	yellow chrome
ga	grey
gr	green
hg	light grey
hgl	high gloss
kg	pebble grey, RAL 7032
kgm	pebble grey metallic, RAL 7032
kl	clear
me	metallike
op	opal white
og	orange
ro	red
sw	black, RAL 9005
si	silver
sg	silver-grey, RAL 9006
tz	translucent
tp	transparent
vw	traffic white, RAL 9016
ws	white
wa	white-aluminium, RAL 9006



### rotara



### ►231

- 232 ROET LED
- 234 ROEQT LED

### zatta



### ►237

- 240 ZTTAB LED
- 240 ZTTADA LED
- 240 ZTTAXB LED



# Downlights, spotlights and tracks

doma



►215

- 216 DESB LED
- 217 DESSB LED

relo



►219

- 220 RDES-0 LED

loda



►223

- 224 LDESO LED

scota



►227

- 228 SDES-0 LED

emphara



►243

- 246 EMTT LED

spotty



►251

- 252 SYTT LED





# Downlights



for ceilings with panels

doma ▶ 228



for cut-out ceilings

doma ▶ 216



loda ▶ 224



relo ▶ 220



rotara ▶ 232



rotara ▶ 232



scota ▶ 228





# doma



## doma – high-quality downlight for many areas of application

- Universal downlight for recessed installation
- High-quality light technology with very good anti-glare effect
- IP54 possible on the room side



### Type overview

- ▶ DESB Mirror reflector, highly specular direct wide distribution
- ▶ DESSB Mirror reflector, highly specular direct wide distribution IP 54

# doma LED

LED A++ 1000lm 19 V CE IP 20

## Mounting:

- Ceiling recessed

## Housing:

- Sheet steel, die-cast aluminium with decor cover ring in white or pebble grey metallic
- Suitable for ceiling system: cut-out ceilings; panel ceiling

## Lighting technology DESB:

- Mirror reflector, highly specular
- Lighting characteristic direct wide distribution
- Suitable for VDU workstations,  $65^\circ < 1000 \text{ cd/m}^2$ ,  $\text{UGR} \leq 19$  in accordance with DIN-EN 12464-1

## Lamp:

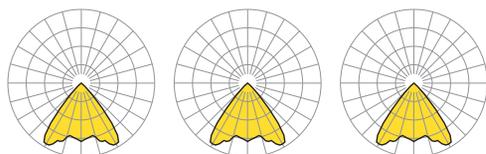
- LED 50000h L80/B10
- CRI  $\geq 80$  / 4000K

## Switching:

- 1 Controller
- Electronic driver

## Accessories:

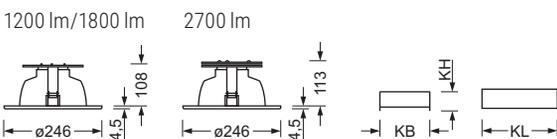
- Order mounting accessories separately:  
Insert DES-EP necessary for panel ceilings;  
DES-EM is available as an option for reinforcing cut-out ceilings



DES 195 LED	DES 195 LED	DES 195 LED
1200 lm 840	1800 lm 840	2700 lm 840
$\eta_{LB}$ 100% lm/W 129	$\eta_{LB}$ 100% lm/W 118	$\eta_{LB}$ 100% lm/W 115
direct/indirect 100/0%	direct/indirect 100/0%	direct/indirect 100/0%
UGR lat./long. 17,1/17,1	UGR lat./long. 18,5/18,5	UGR lat./long. 19,8/19,8
VDU $65^\circ < 1000 \text{ cd/m}^2$	VDU $65^\circ < 1000 \text{ cd/m}^2$	VDU $65^\circ < 1000 \text{ cd/m}^2$

## Dimensions

Type	Versions	DxH	T	KL	KB	KH	DA	Et	DS min/max
DES. 195	LED	246 x 113	108	157	67	30	229	165	10 - 25
DES. 2700 195	LED	246 x 117	113	157	67	30	229	165	10 - 25



## Products

Type	Lamps	lm/W	$P_{sys}$ [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg	
<i>Mirror reflector, highly specular direct wide distribution</i>									
doma-DESB 195	LED 1200 840	129	9	ws	ED	246 x 113	3694 0314 120	0,72	
					kgm	ED	246 x 113	3694 0314 125	0,72
	LED 1800 840	118	15	ws	ED	246 x 113	3694 0334 120	0,78	
					DALI <sup>1)</sup>	246 x 113	3694 0336 620	0,83	
					ED EM-B3 <sup>2)</sup>	246 x 113	3694 0337 720	2,48	
					kgm	ED	246 x 113	3694 0334 125	0,78
					DALI <sup>1)</sup>	246 x 113	3694 0336 625	0,83	
					LED 2700 840	115	23	ws	ED
	DALI <sup>1)</sup>	246 x 117	3694 0356 620	1,07					
	ED EM-B3 <sup>2)</sup>	246 x 117	3694 0357 720	2,48					
kgm	ED	246 x 117	3694 0354 125	1,02					
				DALI <sup>1)</sup>	246 x 117	3694 0356 625	1,07		

<sup>1)</sup> IoT: Luminaires suitable for IoT (Internet of Things)

<sup>2)</sup> +IoT: Luminaires with emergency light unit single battery 3h

## Accessories

Type	Colour	Material	Details	Art. no.	kg
<i>Mounting</i>					
Insert for panel ceilings	DES-EP 195	vw	St	Module 100/200 for DESB, DESSB	3699 8300 000
Reinforcing for mineral fibre ceilings	DES-EM 195	me	St	for DESB, DESSB	3699 8200 000
	DES-EM/6 195	me	St	for DESB, DESSB	3699 8260 000



### Mounting:

- Ceiling recessed

### Housing:

- Sheet steel, die-cast aluminium with decor cover ring in white or pebble grey metallic
- Suitable for ceiling system: cut-out ceilings; panel ceiling

### Lighting technology DESSB:

- Mirror reflector, highly specular; Glass
- Lighting characteristic direct wide distribution

### Lamp:

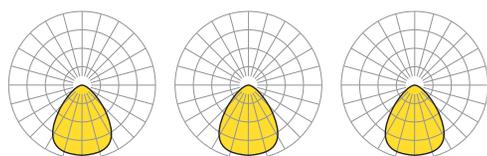
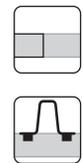
- LED 50000h L80/B10
- CRI ≥ 80 / 4000K

### Switching:

- 1 Controller
- Electronic driver
- 230V 50Hz

### Accessories:

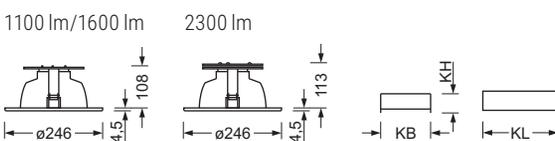
- Order mounting accessories separately:  
Insert DES-EP necessary for panel ceilings;  
DES-EM is available as an option for reinforcing cut-out ceilings



DESSB 195 IP54 LED 1100 lm 840	DESSB 195 IP54 LED 1600 lm 840	DESSB 195 IP54 LED 2300 lm 840
$\eta_{LB}$ 100% lm/W 113	$\eta_{LB}$ 100% lm/W 104	$\eta_{LB}$ 100% lm/W 101
direct/indirect 100/0%	direct/indirect 100/0%	direct/indirect 100/0%
UGR lat./long. 20,3/20,3	UGR lat./long. 21,7/21,7	UGR lat./long. 23,1/23,1

### Dimensions

Type	Versions	DxH	T	KL	KB	KH	DA	Et	DS min/max
DESS. 195	LED	246 x 113	108	157	67	30	229	165	10-25
DESS. 2300 195	LED	246 x 117	113	157	67	30	229	165	10-25



### Products

Type	Lamps	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg	
<i>Mirror reflector, highly specular direct wide distribution IP 54</i>									
doma-DESSB 195 IP54	LED 1100 840	113	9	ws	ED	246 x 113	3694 1314 120	0,93	
					kgm	ED	246 x 113	3694 1314 125	0,93
	LED 1600 840	104	15	ws	ED	246 x 113	3694 1334 120	0,99	
					DALI <sup>1)</sup>	246 x 113	3694 1336 620	1,04	
					kgm	ED	246 x 113	3694 1334 125	0,99
					DALI <sup>1)</sup>	246 x 113	3694 1336 625	1,04	
	LED 2300 840	101	23	ws	ED	246 x 117	3694 1354 120	1,23	
					DALI <sup>1)</sup>	246 x 117	3694 1356 620	1,28	
					kgm	ED	246 x 117	3694 1354 125	1,23
					DALI <sup>1)</sup>	246 x 117	3694 1356 625	1,28	

<sup>1)</sup> Luminaires suitable for IoT (Internet of Things)

### Accessories

Type	Colour	Material	Details	Art. no.	kg
<i>Mounting</i>					
Insert for panel ceilings	DES -EP 195	vw	St	Module 100/200 for DESB, DESSB	3699 8300 000 1 1,70
Reinforcing for mineral fibre ceilings	DES -EM 195	me	St	for DESB, DESSB	3699 8200 000 1 0,91
	DES -EM/6 195	me	St	for DESB, DESSB	3699 8260 000 1 0,87



# relo



## relo – simply versatile

- Universal LED downlight for recessed ceiling installation in IP44
- Robust, die-cast housing with driver, wired ready for use
- Direct light distribution using opal diffuser
- Choice of three different sizes and two light colours
- Recessed diffuser panel makes for an attractive appearance



## Type overview

- ▶ RDES-0 Diffuser, opal direct wide distribution

# relo LED



LED A+ □ ▽ ⚡ CE IP 44

**Mounting:**

- Ceiling recessed

**Housing:**

- Die-cast aluminium
- Suitable for ceiling system: cut-out ceilings

**Lighting technology RDES-0:**

- Diffuser, opal; PC plastic
- Lighting characteristic direct wide distribution

**Lamp:**

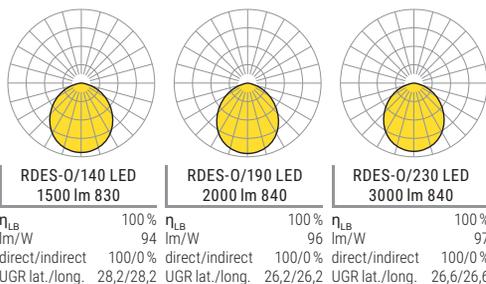
- LED 50000h L70/B10
- CRI ≥ 80 / 3000K , 4000K

**Switching:**

- 1 Controller
- Electronic driver
- 230V 50Hz

**Miscellaneous:**

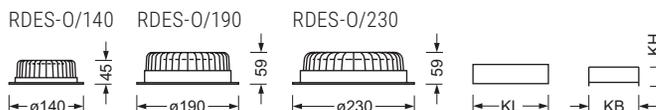
- External LED driver wired ready for operation via 0.4m flexible connection cable, access cable 1.0m, 2x0.75 mm<sup>2</sup> with wire end sleeves



**Dimensions**

Type	Versions	DxH	T	KL	KB	KH	DA	Et	DS min/max
RDES-0/140	LED	140 x 45	45	145	43	30	125	95	10 - 20
RDES-0/190	LED	190 x 59	59	145	43	30	175	110	10 - 20
RDES-0/230	LED	230 x 59	59	145	43	30	215	110	10 - 20

Type	η <sub>LB</sub> lm/W	100% η <sub>LB</sub> lm/W	Type	η <sub>LB</sub> lm/W	100% η <sub>LB</sub> lm/W
RDES-0/140 LED	1500	94	RDES-0/190 LED	2000	96
RDES-0/140 LED	830	94	RDES-0/190 LED	840	96
RDES-0/230 LED	3000	97	RDES-0/230 LED	840	97
	direct/indirect	100/0%		direct/indirect	100/0%
	UGR lat./long.	28,2/28,2		UGR lat./long.	26,2/26,2



Ready for operation connecting kit

**Products**

Type	Lamps	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg
<i>Diffuser, opal direct wide distribution</i>								
relo-RDES-0/140	LED 1500 830	94	16	ws	ED	140 x 45	3767 1114 140	0,58
	LED 1500 840	97	16	ws	ED	140 x 45	3767 1104 140	0,58
relo-RDES-0/190	LED 2000 830	93	21	ws	ED	190 x 59	3767 2114 140	0,91
					DALI <sup>1)</sup>	190 x 59	3767 2116 640	0,91
	LED 2000 840	96	21	ws	ED	190 x 59	3767 2104 140	0,91
					DALI <sup>1)</sup>	190 x 59	3767 2106 640	0,91
relo-RDES-0/230	LED 3000 830	94	31	ws	ED	230 x 59	3767 3114 140	1,21
					DALI <sup>1)</sup>	230 x 59	3767 3116 640	1,21
	LED 3000 840	97	31	ws	ED	230 x 59	3767 3104 140	1,21
					DALI <sup>1)</sup>	230 x 59	3767 3106 640	1,21

<sup>1)</sup> IoT: Luminaires suitable for IoT (Internet of Things)





# loda



## loda – harmony in shape and light

- LED downlight for recessed installation in IP44
- Robust, die-cast housing with driver, wired ready for use
- Direct light distribution using opal diffuser
- Choice of warm white or neutral white light colours
- Pragmatic and economic solution for development areas



## Type overview

- ▶ LDES0 Diffuser, opal direct wide distribution

# Ioda LED



LED A+ □ ▽ ⚡ CE IP 44

**Mounting:**

- Ceiling recessed

**Housing:**

- Die-cast aluminium
- Suitable for ceiling system: cut-out ceilings

**Lighting technology LDES0:**

- Diffuser, opal; PC plastic
- Lighting characteristic direct wide distribution

**Lamp:**

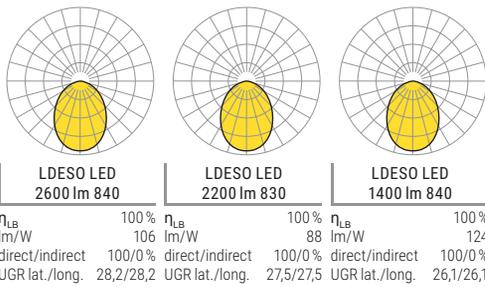
- LED 50000h L80/B10
- CRI ≥ 80 / 3000K, 4000K

**Switching:**

- 1 Controller
- Electronic driver
- 230V 50Hz

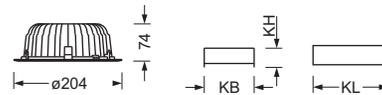
**Miscellaneous:**

- External LED driver wired ready for operation via 0.4m flexible connection cable, access cable 1.0m, 2x0.75 mm<sup>2</sup> with wire end sleeves



**Dimensions**

Type	Versions	DxH	T	KL	KB	KH	DA	Et	DS min/max
LDES0	LED	204 x 74	74	240	30	21	190	105	10-20



Ready for operation  
connecting kit

**Products**

Type	Lamps	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg
<i>Diffuser, opal direct wide distribution</i>								
Ioda-LDES0	LED 1200 830	102	12	ws	ED	204 x 74	3767 0214 140	1,10
	LED 1400 840	124	12	ws	ED	204 x 74	3767 0204 140	1,10
	LED 2200 830	88	25	ws	ED	204 x 74	3767 0114 140	1,10
					DALI <sup>1)</sup>	204 x 74	3767 0116 640	1,10
	LED 2600 840	106	25	ws	ED	204 x 74	3767 0104 140	1,10
					DALI <sup>1)</sup>	204 x 74	3767 0106 640	1,10

<sup>1)</sup> IoT: Luminaires suitable for IoT (Internet of Things)





# scota

## scota – square, practical, good

- Universal square LED downlight for recessed ceiling installation in IP44
- Robust, die-cast housing with driver, wired ready for use
- Direct light distribution using opal diffuser
- Choice of two different sizes and two light colours
- Recessed diffuser panel makes for an attractive appearance



## Type overview

- ▶ SDES-0 Diffuser, opal direct wide distribution

# scota LED



A+ □ ▽ ⚡ CE IP 44

**Mounting:**

- Ceiling recessed

**Housing:**

- Die-cast aluminium
- Suitable for ceiling system: cut-out ceilings

**Lighting technology SDES-O:**

- Diffuser, opal; PC plastic
- Lighting characteristic direct wide distribution

**Lamp:**

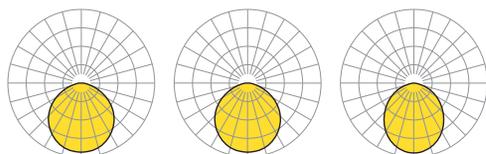
- LED 50000h L70/B10
- CRI ≥ 80 / 3000K, 4000K

**Switching:**

- 1 Controller
- Electronic driver
- 230V 50Hz

**Miscellaneous:**

- External LED driver wired ready for operation via 0.4m flexible connection cable, access cable 1.0m, 2x0.75 mm<sup>2</sup> with wire end sleeves



SDES-O/120 LED 1000 lm 830		SDES-O/120 LED 1000 lm 840		SDES-O/220 LED 2500 lm 840	
$\eta_{LB}$ lm/W	100% 93	$\eta_{LB}$ lm/W	100% 96	$\eta_{LB}$ lm/W	100% 99
direct/indirect	100/0%	direct/indirect	100/0%	direct/indirect	100/0%
UGR lat./long.	29,4/29,4	UGR lat./long.	29,5/29,5	UGR lat./long.	27,2/27,2

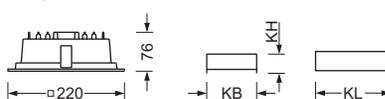
**Dimensions**

Type	Versions	LxBxH/DxH	T	KL	KB	KH	DA <sub>1</sub> xDA <sub>2</sub>	Et	DS min/max
SDES-O/120	LED	120 x 120 x 53	53	145	44	30	100 x 100	83	10 - 20
SDES-O/220	LED	220 x 220 x 76	76	145	44	30	200 x 200	106	10 - 20

SD../120



SD../220



Ready for operation  
connecting kit

**Products**

Type	Lamps	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg
<i>Diffuser, opal direct wide distribution</i>								
scota-SDES-O/120	LED 1100 830	93	12	ws	ED	120 x 120 x 53	3767 6224 140	0,52
	LED 1200 840	96	12	ws	ED	120 x 120 x 53	3767 6214 140	0,52
scota-SDES-O/220	LED 2500 830	97	25	ws	ED	220 x 220 x 76	3767 6124 140	1,15
					DALI <sup>1)</sup>	220 x 220 x 76	3767 6126 640	1,15
	LED 2500 840	99	26	ws	ED	220 x 220 x 76	3767 6114 140	1,15
					DALI <sup>1)</sup>	220 x 220 x 76	3767 6116 640	1,15

<sup>1)</sup> : Luminaires suitable for IoT (Internet of Things)





# rotara

## rotara – create a great atmosphere in showrooms

- Recessed LED spotlights for ceiling cut-outs
- High-quality reflectors with MIRO-SILVER® coating
- UGR ≤ 19 in accordance with DIN-EN 12464-1
- Choice of round or square in two different sizes
- Also available with DALI for dynamic lighting
- High degree of flexibility thanks to cardanic suspension



### Type overview

- ▶ ROET Reflector, faceted, highly specular  
direct narrow distribution
- ▶ ROEQT Reflector, faceted, highly specular  
direct narrow distribution

# rotara LED

LED A+ 3000h L9 CE IP 20

**Mounting:**

- Ceiling recessed

**Housing:**

- Die-cast aluminium, powder-coated, die-cast aluminium heat sink
- Suitable for ceiling system: cut-out ceilings

**Lighting technology ROET:**

- Reflector, faceted, highly specular; aluminium MIRO-SILVER®
- Beam angle 30°
- Lighting characteristic direct narrow distribution
- **ROE./144:** Suitable for VDU workstations, 65° < 3000 cd/m<sup>2</sup>, UGR ≤ 19 in accordance with DIN-EN 12464-1
- **ROE./160:** Suitable for VDU workstations, 65° < 1000 cd/m<sup>2</sup>, UGR ≤ 19 in accordance with DIN-EN 12464-1

**Lamp:**

- LED 50000h L80/B50
- CRI ≥ 80 / 3000K, 4000K

**Switching:**

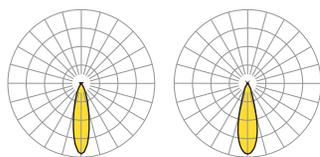
- 1 Controller
- Electronic driver
- 230V 50Hz

**Miscellaneous:**

- High mobility of 360° pivoting with swivel range of 30° (ROE/144) and 45° (ROE/160)
- External LED driver wired ready for operation via 0.4m flexible connection cable, access cable 1.0m, 2x0.75mm<sup>2</sup> with wire end sleeves

**Accessories:**

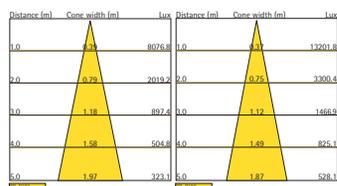
- Exchange reflectors available as accessories



**ROET/144 LED**  
2500 lm 830

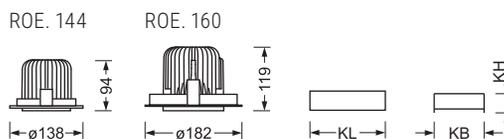
**ROET/160 LED**  
4300 lm 840

$\eta_{LB}$	100 %	$\eta_{LB}$	100 %
lm/W	109	lm/W	121
direct/indirect	100/0 %	direct/indirect	100/0 %
UGR lat./long.	16,5/16,5	UGR lat./long.	15,5/15,5
VDU	65° < 3000cd/m <sup>2</sup>	VDU	65° < 1000cd/m <sup>2</sup>



**Dimensions**

Type	Versions	DxH	KL	KB	KH	DA	Et	DS min/max
ROE./144	LED	138 x 94	115	53	23	120	140	10 - 20
ROE./160	LED	182 x 119	170	45	35	170	160	10 - 20



General view



## Products

Type	Lamps	$\alpha$	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg
<i>Reflector, faceted, highly specular direct narrow distribution</i>									
rotara-ROET/144	LED 2500 830	30	109	23	vw	ED	138 x 94	3757 0034 130	0,40
						DALI <sup>1)</sup>	138 x 94	3757 0036 630	0,40
	LED 2600 840	30	114	23	vw	ED	138 x 94	3757 0044 130	0,40
						DALI <sup>1)</sup>	138 x 94	3757 0046 630	0,40
rotara-ROET/160	LED 4100 830	30	114	36	vw	ED	182 x 119	3757 0054 130	1,70
						DALI <sup>1)</sup>	182 x 119	3757 0056 630	1,70
	LED 4300 840	30	121	36	vw	ED	182 x 119	3757 0064 130	1,70
						DALI <sup>1)</sup>	182 x 119	3757 0066 630	1,70

<sup>1)</sup> : Luminaires suitable for IoT (Internet of Things)

## Accessories

Type	Colour	Material	Details	Art. no.	kg	
<i>Lighting technology</i>						
Reflector	30°-110/144-REFLEKTOR	aeh	Al	Exchangeable reflector, highly specular faceted, beam angle 30°, for EMTT/110, ROE./144	3750 0004 130	1 0,01
	40°-110/144-REFLEKTOR	aes	Al	Exchangeable reflector, highly specular faceted, beam angle 40°, for EMTT/110, ROE./144	3750 4014 140	1 0,01
	60°-160-REFLEKTOR	aes	Al	Exchangeable reflector, matt segmented, beam angle 60°, for ROE./160,	3750 5014 140	1 0,03

# rotara LED

LED A+ 3000lm 9 CE IP 20

**Mounting:**

- Ceiling recessed

**Housing:**

- Die-cast aluminium, powder-coated, die-cast aluminium heat sink
- Suitable for ceiling system: cut-out ceilings

**Lighting technology ROEQT:**

- Reflector, faceted, highly specular; aluminium MIRO-SILVER®
- Beam angle 30°
- Lighting characteristic direct narrow distribution
- **ROEQ./144:** Suitable for VDU workstations, 65° < 3000 cd/m<sup>2</sup>, UGR ≤ 19 in accordance with DIN-EN 12464-1
- **ROEQ./160:** Suitable for VDU workstations, 65° < 1000 cd/m<sup>2</sup>, UGR ≤ 19 in accordance with DIN-EN 12464-1

**Lamp:**

- LED 50000h L80/B50
- CRI ≥ 80 / 3000K, 4000K

**Switching:**

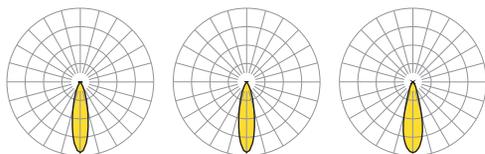
- 1 Controller
- Electronic driver
- 230V 50Hz

**Miscellaneous:**

- High mobility, 360° pivoting with swivel range of 30° (ROEQ./144), 45° fully cardanic (ROEQ)
- External LED driver wired ready for operation via 0.4m flexible combination cable, connection cable 1.0m, 2x0.75mm<sup>2</sup> with wire end sleeves

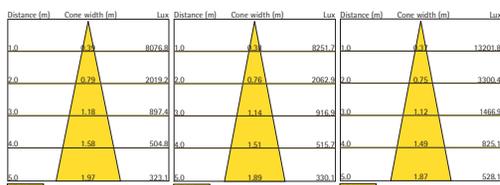
**Accessories:**

- Exchange reflectors available as accessories



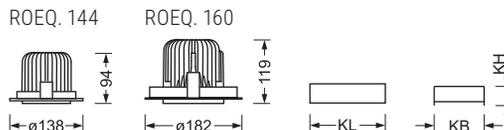
**ROEQT/144 LED 2500 lm 830**      **ROEQT/144 LED 2600 lm 840**      **ROEQT/160 LED 4300 lm 840**

$\eta_{LB}$	100%	$\eta_{LB}$	100%	$\eta_{LB}$	100%
lm/W	109	lm/W	114	lm/W	121
direct/indirect	100/0%	direct/indirect	100/0%	direct/indirect	100/0%
UGR lat./long.	16,5/16,5	UGR lat./long.	16,6/16,6	UGR lat./long.	15,5/15,5
VDU	65° < 3000cd/m <sup>2</sup>	VDU	65° < 3000cd/m <sup>2</sup>	VDU	65° < 1000cd/m <sup>2</sup>



**Dimensions**

Type	Versions	LxBxH	KL	KB	KH	DA <sub>A</sub> xDA <sub>B</sub>	Et	DS min/max
ROEQ./144	LED	151 x 151 x 94	115	53	23	135 x 135	140	10 - 20
ROEQ./160	LED	175 x 175 x 119	170	45	35	155 x 160	160	10 - 20



General view



## Products

Type	Lamps	$\alpha$	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg
<i>Reflector, faceted, highly specular direct narrow distribution</i>									
rotara-ROEQT/144	LED 2500 830	30	109	23	vw	ED	151 x 151 x 94	3758 0034 130	0,40
						DALI <sup>1)</sup>	151 x 151 x 94	3758 0036 630	0,40
	LED 2600 840	30	114	23	vw	ED	151 x 151 x 94	3758 0044 130	0,40
						DALI <sup>1)</sup>	151 x 151 x 94	3758 0046 630	0,40
rotara-ROEQT/160	LED 4100 830	30	114	36	vw	ED	175 x 175 x 119	3758 0054 130	1,70
						DALI <sup>1)</sup>	175 x 175 x 119	3758 0056 630	1,70
	LED 4300 840	30	121	36	vw	ED	175 x 175 x 119	3758 0064 130	1,70
						DALI <sup>1)</sup>	175 x 175 x 119	3758 0066 630	1,70

<sup>1)</sup> : Luminaires suitable for IoT (Internet of Things)

## Accessories

Type	Colour	Material	Details	Art. no.	kg	
<i>Lighting technology</i>						
Reflector	30°-110/144-REFLEKTOR	aeh	Al	Exchangeable reflector, highly specular faceted, beam angle 30°, for EMTT/110, ROE./144	3750 0004 130	1 0,01
	40°-110/144-REFLEKTOR	aes	Al	Exchangeable reflector, highly specular faceted, beam angle 40°, for EMTT/110, ROE./144	3750 4014 140	1 0,01
	60°-160-REFLEKTOR	aes	Al	Exchangeable reflector, matt segmented, beam angle 60°, for ROE./160,	3750 5014 140	1 0,03



# zatta

**zatta - with this light raft  
you will be riding on the wave of success**

- Gracefully lightweight general lighting
- Outstanding for low installation heights
- Light distribution from wide to extra-wide to double asymmetrical distribution
- Output levels from 6,100 up to 8,000 lumen
- Suitable for suspended installation or attachment to 3-phase tracks



## Type overview

- ▶ ZTTAB Individual.Lens.Optic direct wide distribution
- ▶ ZTTADA Individual.Lens.Optic direct double asymmetrical distribution
- ▶ ZTTAXB Individual.Lens.Optic direct extremely wide distribution





Low installation height



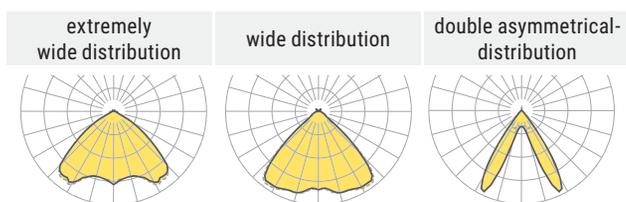
Time for you to make a move

## Our new format for surface luminaires

- New option – surface luminaire on tracks
- Object areas: general lighting/aisle lighting/retail/logistics
- Extremely flat housing with driver
- Track and suspended mounting
- Excellent surface luminaire with flexible lighting technology
- Efficient, anti-glare lighting technology with Individual.Lens.Optic
- Output levels from 6,100 up to 8,000 lumen

# zatta + DPSN

## Lighting technology\*



\* Other lighting technologies possible

## Suspended mounting



Optional:  
noble & black





LED A++ CE IP 20

**Mounting:**

- 3-phase track

**Housing:**

- Sheet steel housing, powder-coated

**Lighting technology ZTTAB:**

- Individual.Lens.Optic; PMMA plastic
- Lighting characteristic direct wide distribution

**Lighting technology ZTTADA:**

- Individual.Lens.Optic; PMMA plastic
- Lighting characteristic direct double asymmetrical distribution

**Lighting technology ZTTAXB:**

- Individual.Lens.Optic; PMMA plastic
- Lighting characteristic direct extremely wide distribution

**Lamp:**

- LED 50000h L80/B10
- CRI ≥ 80 / 3000K, 4000K

**Switching:**

- 1 Controller
- Electronic driver
- 230V 50Hz

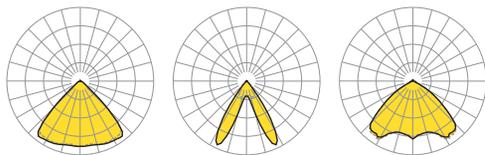
**Miscellaneous:**

- Track adapter included in scope of delivery. Black available on request. DPSN FUNK adapter DT8 EnOcean available as accessory. Information about further EnOcean components via Dali@regiolux.de

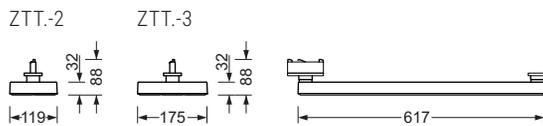


**Dimensions**

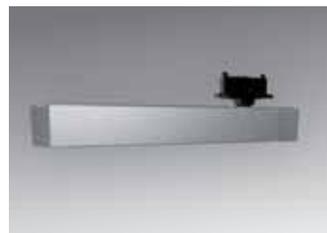
Type	Versions	LxBxH/DxH
ZTT-2	LED	617 x 119 x 32
ZTT-3	LED	617 x 175 x 32



ZTTAB-3 LED 7900 lm 840		ZTTADA-3 LED 8000 lm 840		ZTTAXB-2 LED 6100 lm 830	
$\eta_{LB}$	100%	$\eta_{LB}$	100%	$\eta_{LB}$	100%
lm/W	160	lm/W	162	lm/W	144
direct/indirect	100/0%	direct/indirect	100/0%	direct/indirect	100/0%
UGR lat./long.	20,8/20,9	UGR lat./long.	19,9/18,5	UGR lat./long.	23,5/23,4



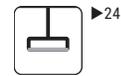
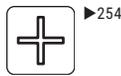
zatta-ZTTAB-2 LED sg



DPSN FUNK reciever



Tool for removal on DPSN



## Products

Type	Lamps	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	
<i>Individual. Lens. Optic direct wide distribution</i>								
zatta-ZTTAB-2	LED 6100 830	143	42	vw	ED	617 x 119 x 32	4123 1034 120	2,52
					DALI <sup>1)</sup>	617 x 119 x 32	4123 1036 620	2,62
					sg	ED	617 x 119 x 32	4123 1034 125
	LED 6500 840	154	42	vw	ED	617 x 119 x 32	4123 1044 120	2,52
					DALI <sup>1)</sup>	617 x 119 x 32	4123 1046 620	2,62
					sg	ED	617 x 119 x 32	4123 1044 125
zatta-ZTTAB-3	LED 7400 830	149	49	vw	ED	617 x 175 x 32	4123 0014 120	3,22
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0016 620	3,33
					sg	ED	617 x 175 x 32	4123 0014 125
	LED 7900 840	160	49	vw	ED	617 x 175 x 32	4123 0024 120	3,22
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0026 620	3,32
					sg	ED	617 x 175 x 32	4123 0024 125
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0026 625	3,32
<i>Individual. Lens. Optic direct double asymmetrical distribution</i>								
zatta-ZTTADA-2	LED 6200 830	145	42	vw	ED	617 x 119 x 32	4123 1034 110	2,52
					DALI <sup>1)</sup>	617 x 119 x 32	4123 1036 610	2,62
					sg	ED	617 x 119 x 32	4123 1034 115
	LED 6600 840	155	42	vw	ED	617 x 119 x 32	4123 1044 110	2,52
					DALI <sup>1)</sup>	617 x 119 x 32	4123 1046 610	2,62
					sg	ED	617 x 119 x 32	4123 1044 115
zatta-ZTTADA-3	LED 7500 830	151	49	vw	ED	617 x 175 x 32	4123 0014 110	3,22
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0016 610	3,33
					sg	ED	617 x 175 x 32	4123 0014 115
	LED 8000 840	162	49	vw	ED	617 x 175 x 32	4123 0024 110	3,22
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0026 610	3,32
					sg	ED	617 x 175 x 32	4123 0024 115
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0026 615	3,32
<i>Individual. Lens. Optic direct extremely wide distribution</i>								
zatta-ZTTAXB-2	LED 6100 830	144	42	vw	ED	617 x 119 x 32	4123 1034 130	2,52
					DALI <sup>1)</sup>	617 x 119 x 32	4123 1036 630	2,62
					sg	ED	617 x 119 x 32	4123 1034 135
	LED 6600 840	154	42	vw	ED	617 x 119 x 32	4123 1044 130	2,52
					DALI <sup>1)</sup>	617 x 119 x 32	4123 1046 630	2,62
					sg	ED	617 x 119 x 32	4123 1044 135
zatta-ZTTAXB-3	LED 7400 830	150	49	vw	ED	617 x 175 x 32	4123 0014 130	3,22
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0016 630	3,33
					sg	ED	617 x 175 x 32	4123 0014 135
	LED 8000 840	161	49	vw	ED	617 x 175 x 32	4123 0024 130	3,22
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0026 630	3,32
					sg	ED	617 x 175 x 32	4123 0024 135
					DALI <sup>1)</sup>	617 x 175 x 32	4123 0026 635	3,32

<sup>1)</sup> : Luminaires suitable for IoT (Internet of Things)

## Accessories

Type	Colour	Material	Details	Art. no.	
<i>Mounting</i>					
Tool	ZTTA-ERW	vw	St	for zatta for removal on DPSN	4123 9000 100 1 0,15
<i>Structure</i>					
Mounting rail	DPSN-FUNK	sg	PC	Wireless receiver for DSPN	3754 5000 205 1 0,50

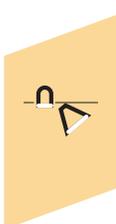


# emphara



## emphara – effective presentation

- LED track spotlight with high-quality reflectors with MIRO SILVER® coating
- 7 different light colours and CRI values 80 and up
- Coherent and simple design
- Adapter for DPSN 3-phase tracks with DALI
- Flexible use as it can be rotated and swivelled through 350° and 90° respectively



## Type overview

- ▶ EMTT Reflector, faceted, highly specular direct narrow distribution



Setting new accents with the optimal colour temperatures

1900K

2000K

2200K

3000K

4000K



## Colour temperature and CRI/Ra

Together with light colours, the colour rendering index (CRI) denoted by the symbol Ra is the indicator for the quality of colour rendering.

The CRI provides information about the quality with which the colours of illuminated objects are rendered or reflected.

≥90  
CRI



≥80  
CRI

## Highlight the presentation of the merchandise with high-contrast accents

- High quality low glare reflectors (beam angles 30°, 40°, 60°)
- 7 different light colours
- CRI values 80 and up
- Coherent and simple design
- Adapter for 3-phase tracks with DALI for DPSN
- Flexible use as it can be rotated and swivelled through 350° and 90° respectively

5000K

6500K

+ CRI 90



# emphara LED with special light colours



LED A+ A 3000 9 CE IP 20

**Mounting:**

- 3-phase track

**Housing:**

- Spotlight unit made of die-cast aluminium, powder-coated

**Lighting technology EMTT:**

- Reflector, faceted, highly specular; aluminium MIRO-SILVER®
- Beam angle 30°
- Suitable for VDU workstations, 65° < 3000 cd/m², UGR ≤ 19 in accordance with DIN-EN 12464-1

**Lamp:**

- LED 50000h L80/B50
- CRI ≥ 80 / 1900K, 2200K, 2700K
- CRI ≥ 90 / 4000K, 6300K

**Switching:**

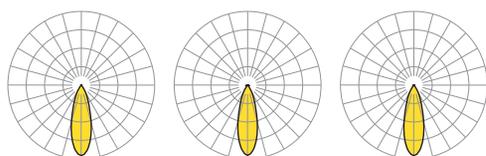
- 1 Controller
- Electronic driver
- 230V 50Hz

**Miscellaneous:**

- Head can be rotated 350° and swivelled 90°
- Luminaire including LED and driver

**Accessories:**

- Exchange reflectors 40° and 60° available as accessories

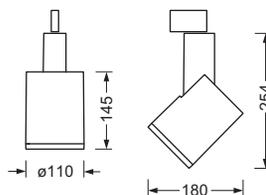


EMTT/110 LED 2900 lm 963	EMTT/110 LED 2700 lm 940	EMTT/110 LED 2400 lm 819
$\eta_{LB}$ 100%	$\eta_{LB}$ 100%	$\eta_{LB}$ 100%
lm/W 100	lm/W 76	lm/W 67
direct/indirect 100/0%	direct/indirect 100/0%	direct/indirect 100/0%
UGR lat./long. 16,7/16,7	UGR lat./long. 16,3/16,3	UGR lat./long. 16,0/16,0
VDU 65° < 3000cd/m²	VDU 65° < 1500cd/m²	

Distance (m)	Cone width (m)	Lux	Distance (m)	Cone width (m)	Lux	Distance (m)	Cone width (m)	Lux
3,0	0,71	1043,2	3,0	0,63	836,7	3,0	0,71	676,2
5,0	3,42	260,8	5,0	3,36	209,2	5,0	3,42	169,1
9,0	5,14	115,9	9,0	5,05	93,0	9,0	5,14	75,1
12,0	6,85	65,2	12,0	6,73	52,3	12,0	6,85	42,3
15,0	8,56	41,7	15,0	8,41	33,5	15,0	8,56	27,0

**Dimensions**

Type	Versions	LxBxH/DxH	KL	KB	KH
EMT./110	LED	110 x 180 x 254	133	42	53





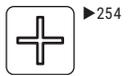
## Products

Type	Lamps	$\alpha$	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	kg
<i>Reflector, faceted, highly specular direct narrow distribution</i>									
emphara-EMTT/110	LED 2300 822	30	64	36	vw	ED	110 x 180 x 254	3751 2044 130	1,20
					sw	ED	110 x 180 x 254	3751 2044 134	1,20
					sg	ED	110 x 180 x 254	3751 2044 135	1,20
	LED 2400 819	30	67	36	vw	ED	110 x 180 x 254	3751 2034 130	1,20
					sw	ED	110 x 180 x 254	3751 2034 134	1,20
					sg	ED	110 x 180 x 254	3751 2034 135	1,20
LED 2700 940	30	75	36	vw	ED	110 x 180 x 254	3751 2054 130	1,20	
				sw	ED	110 x 180 x 254	3751 2054 134	1,20	
				sg	ED	110 x 180 x 254	3751 2054 135	1,20	
LED 2900 963	30	97	29	vw	ED	110 x 180 x 254	3751 2064 130	1,20	
				sw	ED	110 x 180 x 254	3751 2064 134	1,20	
				sg	ED	110 x 180 x 254	3751 2064 135	1,20	
LED 3700 827	30	103	36	vw	ED	110 x 180 x 254	3751 2074 130	1,20	
				sw	ED	110 x 180 x 254	3751 2074 134	1,20	
				sg	ED	110 x 180 x 254	3751 2074 135	1,20	

## Accessories

Type	Colour	Material	Details	Art. no.	kg	
<i>Lighting technology</i>						
Reflector	30°-110/144-REFLEKTOR	aeh	Al	Exchangeable reflector, highly specular faceted, beam angle 30°, for EMTT/110, ROE./144	3750 0004 130	1 0,01
	40°-110/144-REFLEKTOR	aes	Al	Exchangeable reflector, highly specular faceted, beam angle 40°, for EMTT/110, ROE./144	3750 4014 140	1 0,01
	60°-110/144-REFLEKTOR	aes	Al	Exchangeable reflector, matt segmented, beam angle 60°, for EMTT/110	3750 0004 160	1 0,01

# emphara LED with proven light colours



LED A++ A+ 19 CE IP 20

**Mounting:**

- 3-phase track

**Housing:**

- Spotlight unit made of die-cast aluminium, powder-coated

**Lighting technology EMTT:**

- Reflector, faceted, highly specular; aluminium MIRO-SILVER®
- Beam angle 30°
- Lighting characteristic direct narrow distribution
- Glare evaluation UGR ≤ 19

**Lamp:**

- LED 50000h L80/B50
- CRI ≥ 80 / 3000K, 4000K

**Switching:**

- 1 Controller
- Electronic driver
- 230V 50Hz

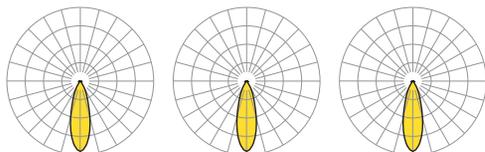
**Miscellaneous:**

- Head can be rotated 350° and swivelled 90°
- Luminaire including LED and driver

**Accessories:**

- Exchange reflectors 40° and 60° available as accessories

emphara-EMTT/110 LED vw

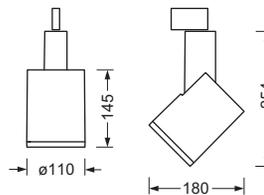


EMTT/110 LED 2900 lm 830		EMTT/110 LED 3900 lm 830		EMTT/110 LED 4100 lm 840	
$\eta_{LB}$	100%	$\eta_{LB}$	100%	$\eta_{LB}$	100%
lm/W	115	lm/W	108	lm/W	114
direct/indirect	100/0%	direct/indirect	100/0%	direct/indirect	100/0%
UGR lat./long.	16,5/16,5	UGR lat./long.	17,5/17,5	UGR lat./long.	17,7/17,7

Distance (m)	Cone width (m)	Lux	Distance (m)	Cone width (m)	Lux	Distance (m)	Cone width (m)	Lux
3,0	1,68	877,6	3,0	1,68	1186,7	3,0	1,68	1246,8
6,0	3,36	219,4	6,0	3,36	296,7	6,0	3,36	311,7
9,0	5,05	97,5	9,0	5,05	131,9	9,0	5,05	138,5
12,0	6,73	54,9	12,0	6,73	74,2	12,0	6,73	77,9
15,0	8,41	35,1	15,0	8,41	47,5	15,0	8,41	49,9

**Dimensions**

Type	Versions	LxBxH/DxH	KL	KB	KH
EMT./110	LED	110 x 180 x 254	133	42	53




**Products**

Type	Lamps	$\alpha$	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	
<i>Reflector, faceted, highly specular direct narrow distribution</i>									
emphara-EMTT/110	LED 2900 830	30	115	25	vw	ED	110 x 180 x 254	3751 1014 130	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 1016 630	1,20
					sw	ED	110 x 180 x 254	3751 1014 134	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 1016 634	1,20
					sg	ED	110 x 180 x 254	3751 1014 135	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 1016 635	1,20
	LED 3000 840	30	121	25	vw	ED	110 x 180 x 254	3751 1024 130	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 1026 630	1,20
					sw	ED	110 x 180 x 254	3751 1024 134	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 1026 634	1,20
					sg	ED	110 x 180 x 254	3751 1024 135	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 1026 635	1,20
	LED 3900 830	30	108	36	vw	ED	110 x 180 x 254	3751 2014 130	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 2016 630	1,20
					sw	ED	110 x 180 x 254	3751 2014 134	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 2016 634	1,20
					sg	ED	110 x 180 x 254	3751 2014 135	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 2016 635	1,20
	LED 4100 840	30	114	36	vw	ED	110 x 180 x 254	3751 2024 130	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 2026 630	1,20
					sw	ED	110 x 180 x 254	3751 2024 134	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 2026 634	1,20
					sg	ED	110 x 180 x 254	3751 2024 135	1,20
						DALI <sup>1)</sup>	110 x 180 x 254	3751 2026 635	1,20

<sup>1)</sup> : Luminaires suitable for IoT (Internet of Things)

**Accessories**

Type	Colour	Material	Details	Art. no.		
<i>Lighting technology</i>						
Reflector	30°-110/144-REFLEKTOR	aeh	Al	Exchangeable reflector, highly specular faceted, beam angle 30°, for EMTT/110, ROE./144	3750 0004 130	1 0,01
	40°-110/144-REFLEKTOR	aes	Al	Exchangeable reflector, highly specular faceted, beam angle 40°, for EMTT/110, ROE./144	3750 4014 140	1 0,01
	60°-110/144-REFLEKTOR	aes	Al	Exchangeable reflector, matt segmented, beam angle 60°, for EMTT/110	3750 0004 160	1 0,01

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# spotty

## spotty – high-quality, compact and true colour

- LED track spotlight with high-quality reflectors with MIRO SILVER® coating
- Compact design, very good colour rendering (CRI 90)
- Driver thermally separated for long service life
- With universal adapter for 3-phase track
- Flexibly deployable as it can be rotated and swivelled through 350° and 90° respectively



## Type overview

- ▶ SYTT Reflector, segmented, highly specular direct narrow distribution



# spotty LED



LED A+  $\leq 19$   $\leq 19$  CE IP 20

**Mounting:**

- 3-phase track

**Housing:**

- Spotlight unit made of die-cast aluminium, powder-coated

**Lighting technology SYTT:**

- Reflector, segmented, highly specular; aluminium MIRO-SILVER®
- Beam angle 36°
- Lighting characteristic direct narrow distribution
- Glare evaluation UGR  $\leq 19$

**Lamp:**

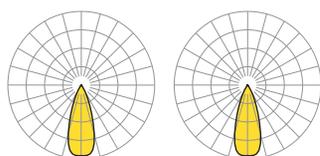
- LED 50000h L80/B50
- CRI  $\geq 90$  / 3000K, 4000K

**Switching:**

- 1 Controller
- Electronic driver
- 230V 50Hz

**Miscellaneous:**

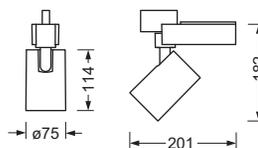
- Head can be rotated 350° and swivelled 90°
- Luminaire including LED and driver



SYTT LED 2600 lm 930		SYTT LED 2700 lm 940	
$\eta_{LB}$	100%	$\eta_{LB}$	100%
lm/W	108	lm/W	113
direct/indirect	100/0%	direct/indirect	100/0%
UGR lat./long.	15,6/15,6	UGR lat./long.	15,8/15,8

**Dimensions**

Type	Versions	LxBxH/DxH	KL	KB	KH
SYT.	LED	75 x 201 x 182	150	51	38




**Products**

Type	Lamps	$\alpha$	lm/W	P <sub>sys</sub> [W]	Colour	Ballast	LxBxH/DxH	Art. no.	$\Omega$ kg
<i>Reflector, segmented, highly specular direct narrow distribution</i>									
spotty-SYTT	LED 2600 930	36	108	24	vw	ED	75 x 201 x 182	3759 1014 130	0,88
					sw	ED	75 x 201 x 182	3759 1014 134	0,88
					sg	ED	75 x 201 x 182	3759 1014 135	0,88
	LED 2700 940	36	112	24	vw	ED	75 x 201 x 182	3759 1024 130	0,88
					sw	ED	75 x 201 x 182	3759 1024 134	0,88
					sg	ED	75 x 201 x 182	3759 1024 135	0,88

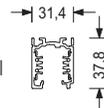


# Accessories 3-phase track DPSN ED + DALI



## Phase track IP 20

Aluminium extruding press profile in white (RAL 9010), black or aluminium natural anodized, rail can be shortened to any length. Voltage 230V/400 16 A + 2 control cable DALI

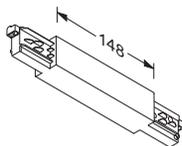
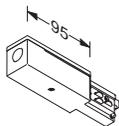


### Products

Type	Colour	Details	Art. no.	kg	1
DPSN-1000	aen	3~, max. 16A, +DALI, L=1000mm	3764 4100 105	1,10	1
	sw	3~, max. 16A, +DALI, L=1000mm	3764 4100 104	1,10	1
	ws	3~, max. 16A, +DALI, L=1000mm	3764 4100 100	1,10	1
DPSN-2000	aen	3~, max. 16A, +DALI, L=2000mm	3764 4200 105	2,10	1
	sw	3~, max. 16A, +DALI, L=2000mm	3764 4200 104	2,10	1
	ws	3~, max. 16A, +DALI, L=2000mm	3764 4200 100	2,10	1
DPSN-3000	aen	3~, max. 16A, +DALI, L=3000mm	3764 4300 105	3,40	1
	sw	3~, max. 16A, +DALI, L=3000mm	3764 4300 104	3,40	1
	ws	3~, max. 16A, +DALI, L=3000mm	3764 4300 100	3,40	1
DPSN-4000	aen	3~, max. 16A, +DALI, L=4000mm	3764 4400 105	4,50	1
	sw	3~, max. 16A, +DALI, L=4000mm	3764 4400 104	4,50	1
	ws	3~, max. 16A, +DALI, L=4000mm	3764 4400 100	4,50	1

### Accessories

Type	Colour	Material	Details	Art. no.	kg	1
DPSN-ESL	sw	PC	Power supply for DSPN, left	3764 4002 104	0,10	1
	ws	PC	Power supply, for DSPN left	3764 4002 100	0,10	1
DPSN-ESR	sw	PC	Power supply, for DSPN right	3764 4001 104	0,10	1
	ws	PC	Power supply, for DSPN right	3764 4001 100	0,10	1



DPSN-ESM	sw	PC	Power supply for DSPN, center	3764 4003 104	0,19	1
	ws	PC	Power supply for DSPN, center	3764 4003 100	0,19	1

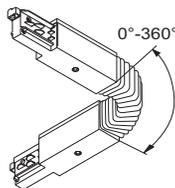


DPSN-KE	sw	PC	Rail connector for DSPN, electrical	3764 4004 104	0,05	1
	ws	PC	Rail connector for DSPN, electrical	3764 4004 100	0,05	1



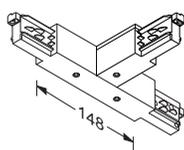
DPSN-KM	sw	PC	Rail connector for DSPN, mechanical	3764 4005 104	0,05	1
	ws	PC	Rail connector for DSPN, mechanical	3764 4005 100	0,05	1

DPSN-KF



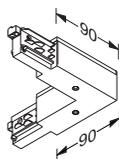
Type	Colour	Material	Details	Art. no.	kg	1
DPSN-KF	sw	PC	Multiflex rail connector, 0°-360°, horizontal and vertical	3764 4006 104	0,24	1
	ws	PC	Multiflex rail connector, 0°-360°, horizontal and vertical	3764 4006 100	0,24	1

DPSN-KTIL/KTIR



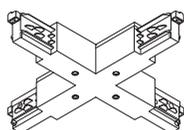
DPSN-KTIL	sw	PC	Rail connector for DSPN, left inside	3764 4018 104	0,29	1
	ws	PC	Rail connector for DSPN, left inside	3764 4018 100	0,29	1
DPSN-KTIR	sw	PC	Rail connector for DSPN, right inside	3764 4015 104	0,29	1
	ws	PC	Rail connector for DSPN, right inside	3764 4015 100	0,29	1

DPSN-KWA/KWI



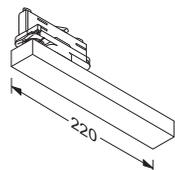
DPSN-KWA	sw	PC	Rail connector for DSPN, left	3764 4017 104	0,19	1
	ws	PC	Rail connector for DSPN, left	3764 4017 100	0,19	1
DPSN-KWI	sw	PC	Rail connector for DSPN, right	3764 4014 104	0,19	1
	ws	PC	Rail connector for DSPN, right	3764 4014 100	0,19	1

DPSN-KX



DPSN-KX	sw	PC	Rail connector for DSPN	3764 4019 104	0,38	1
	ws	PC	Rail connector for DSPN	3764 4019 100	0,38	1

DPSN-wireless



DPSN-wireless sg		PC	Wireless reciever for DSPN	3754 5000 205	0,50	1
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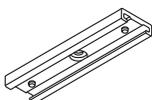
DPSN-ADA



DPSN-ADA	ws	PC	DPSN-DALI adapter	3764 4022 100	0,06	1
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# Accessories 3-phase track DPSN ED + DALI



Type	Colour	Material	Details	Art. no.		
DPSN-AET	ws	PC	DPSN-ED-adapter	3764 4023 100	0,04	1

DPSN-EK	sw	Polymer	End cap for DSPN	3764 4007 104	0,01	1
	ws	Polymer	End cap for DSPN	3764 4007 100	0,01	1

DPSN-DB	sg	Al	Ceiling mounting for DSPN	3764 4008 105	0,02	1
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DPSN-AK	sg	Al	Suspension clamp for DSPN	3764 4011 105	0,02	1
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DPSN-SV	sg	Al	Rail connector for DSPN	3764 4012 105	0,03	1
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DPSN-TSB	ws	Al	Mounting rail attachment for DSPN	3764 4020 100	0,01	1
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DPSN-TSB	ws	Al	Mounting rail attachment for DSPN	3764 4020 100	0,01	1
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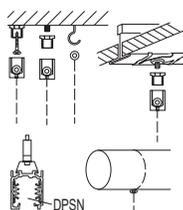
DPSN-DH



Type	Colour	Material	Details	Art. no.	kg	
DPSN-DH	sg	St	Ceiling hook for DSPN	3764 4021 105	0,01	1
DPSN-DH	ws	St	Ceiling hook for DSPN	3764 4021 100	0,01	1



DPSN-CS



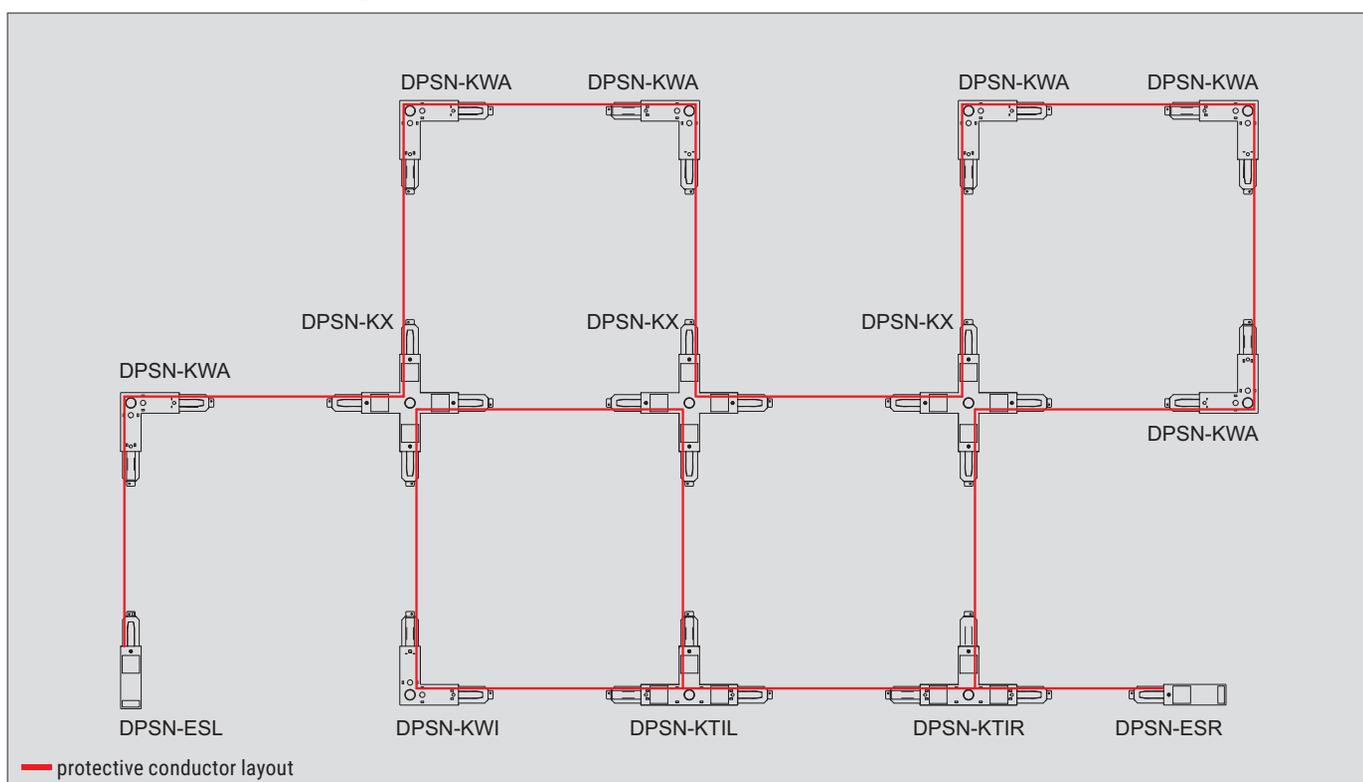
DPSN-CS	sg	Mix	Wire suspension for DPSN, up to 15kg, L=100mm-5200mm	3764 4009 115	0,04	1
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DPSN-LBW

DPSN-LBW	sw	Steel	Conductor bending tool	3764 4010 100	0,10	1
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## DPSN wiring scheme



# Application pictures

Photographer	Project	Page
Paul Zanre, Milton Bridge UK	South Rotunda, Glasgow UK	1
Boris Golz, Arnsberg DE	IGS - Integrierte Gesamtschule Nienburg, Nienburg, DE	8
Inga Paas, Köln DE	Werner-Wicker-Klinik, Bad Wildungen-Reinhardshausen, DE	10
Jana Wenderoth, Kassel DE	Firmenzentrale medDV, Fernwald, DE	12
Hermann Kaufmann, Euro Unitech GmbH, Wien AT	Vienna-City-Marathon, Wien, AT	17
Inga Paas, Köln DE	Goldener Ring, Düsseldorf, DE	18
denisismagilov	fotolia.com	22
Jeff Baumgart	fotolia.com	25
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Christian Tech, Fulda DE	Autohaus Herold, Heiligenstadt Ofr. DE	29
Jana Wenderoth, Kassel DE	Einkaufsmarkt, Sandershausen DE	29
Christian Tech, Fulda DE	ZEE - Zentrum für Elektromobilität und Energieeffizienz, Barleben DE	29
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Alex	fotolia.com	72
Robert Endres, Regiolux GmbH, Königsberg DE	Regiolux GmbH, Königsberg, DE	75
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Frank Freihofer, Kitzingen DE	Christian-von-Bomhard-Schule Uffenheim, Uffenheim, DE	82
Frank Freihofer, Kitzingen DE	TGZ Würzburg, Würzburg, DE	86
Gerhard Hagen, Bamberg DE	Georg Hartmann Realschule, Forchheim, DE	88
Gerhard Hagen, Bamberg DE	Georg Hartmann Realschule, Forchheim, DE	92
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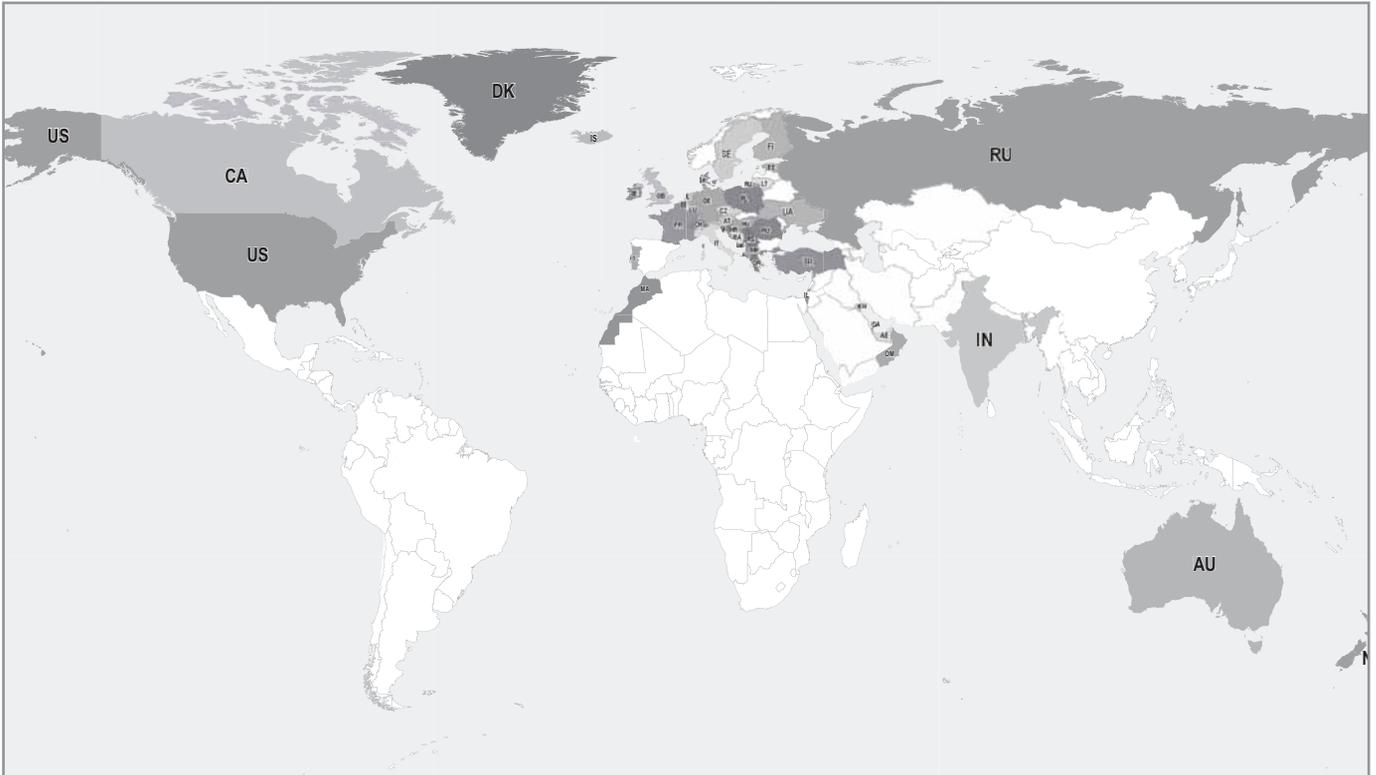
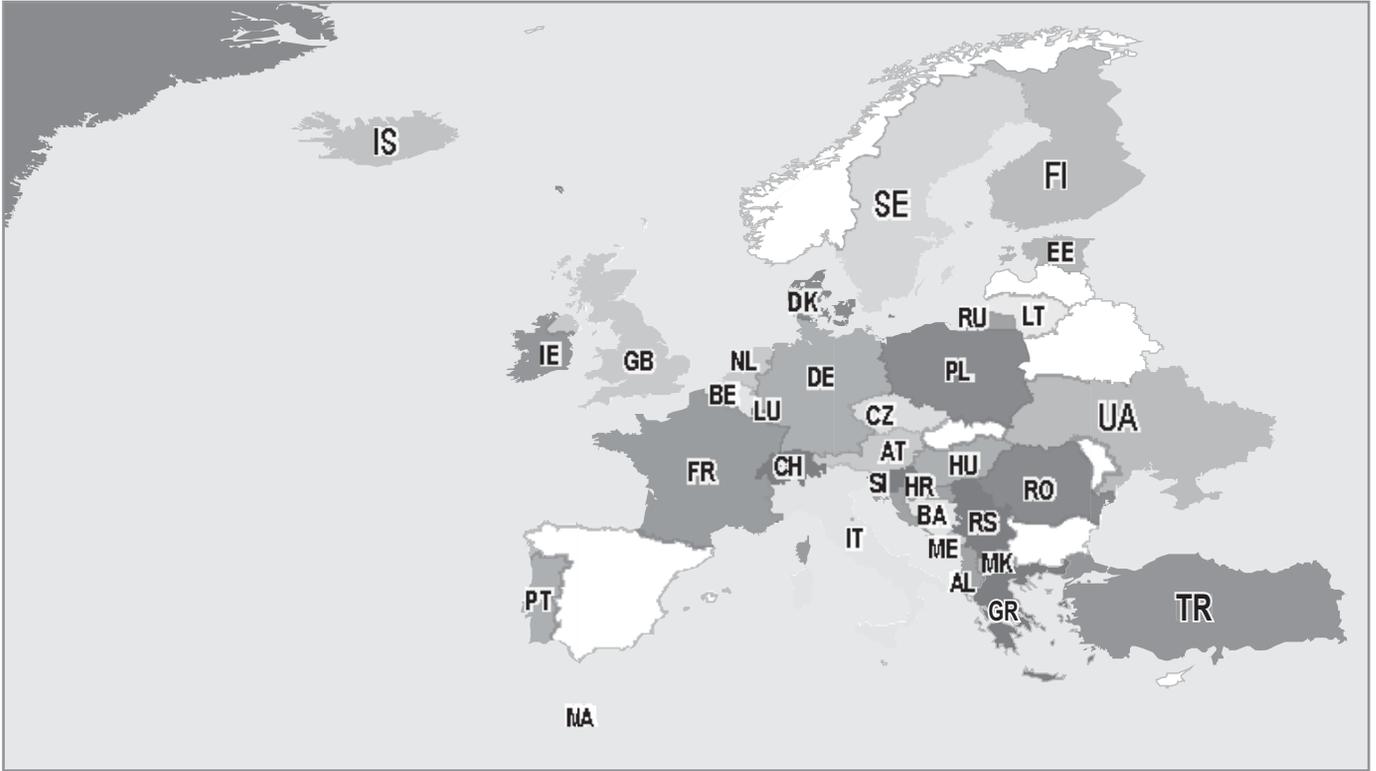
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