# lightlight 12 V product index Q2 2023



## lightlight - the classic systems for designing light for spaces

This booklet contains a complete overview of the LightLight range. LightLight provides a variety of lighting systems for architectural spaces - in the property sector or in high-quality private residences.

Designed by Prof. Hans Buschfeld in 1989, today the slimline 12 volt track system can be found in applications all over the world. On the following pages you will find all the relevant data you need for developing and installing your design, plus pricing information.

As of 2018, the Buschfeld range now includes the 48 volt Sense System.

A new product family that shows what light can do tomorrow: lighting that can be controlled digitally to respond to individual needs and wishes.

Based on the design of the LightLight components, a number of new features have been developed and specific details enhanced. All power feeds and connecting components can basically be used for both the LightLight and the Sense System.

A separate price list is available for the 48V Sense System, the three-dimensional Freestyler track structures and the digital luminaires.

## note on the price list

All prices are recommended sales prices + VAT.

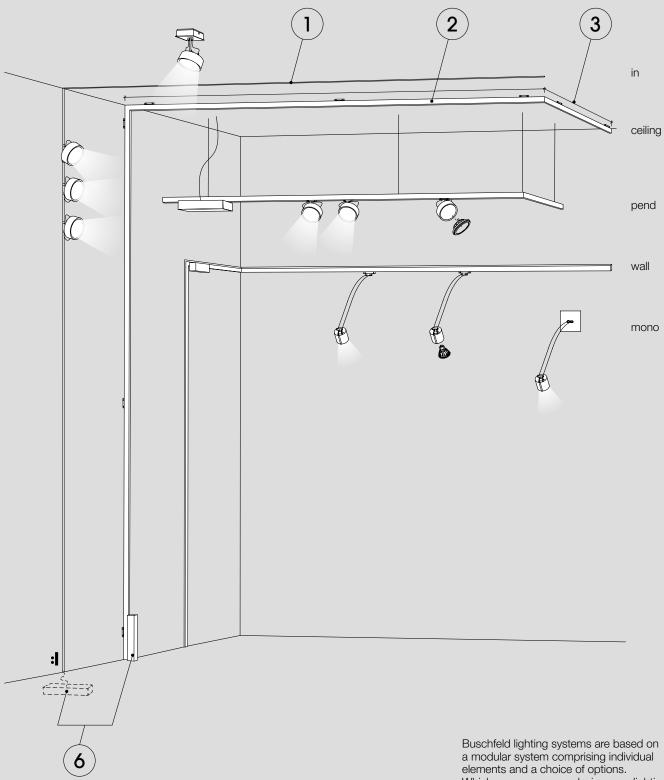
Dimensions are quoted in millimetres, unless otherwise stated.

# lightlight

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## lightlight

## design process and how to order



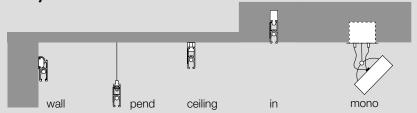
Buschfeld lighting systems are based on a modular system comprising individual elements and a choice of options. Which means you can design your lighting to suit individual requirements. Which and how many elements are required, and how and where are they to be applied?

The following seven points have been compiled to assist you with your planning

https://buschfeld.de/en/how-it-works/12101



### 1 system



Is the track system to be mounted on the wall or ceiling? Or is the system to be pendant-mounted? First decide which of the four LightLight track systems would best serve your purpose: Wall, Pend, Ceiling, In, or a Mono individual luminaire.

### 2 colour





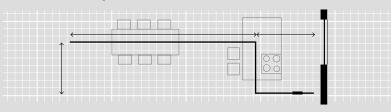




The finishes/colours available are marked in the product list as shown.

Custom colours available on request. page 98

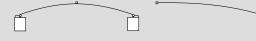
### 3 track layout



Make a rough sketch of how the track system is to run through the space (e.g. plan view) and note down the dimensions. Then select the sections of track, and the connectors and power feeds required. Mark in where the power supply is likely to be.

### 4 design of lumiaires







A wide variety of luminaires are available for every track system. Individual luminaires (Mono) are contained within the respective product range.

page 39 ff.

### 5 light sources

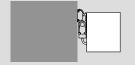




The design scope is further expanded given the choice of up to three shades/canopies available. The shades determine which light source is applicable. LightLight luminaires are replaceable Retrofit LEDs. Potential wattages and beam angles can be found on the following pages.

page 66 ff.

### 6 power supply units





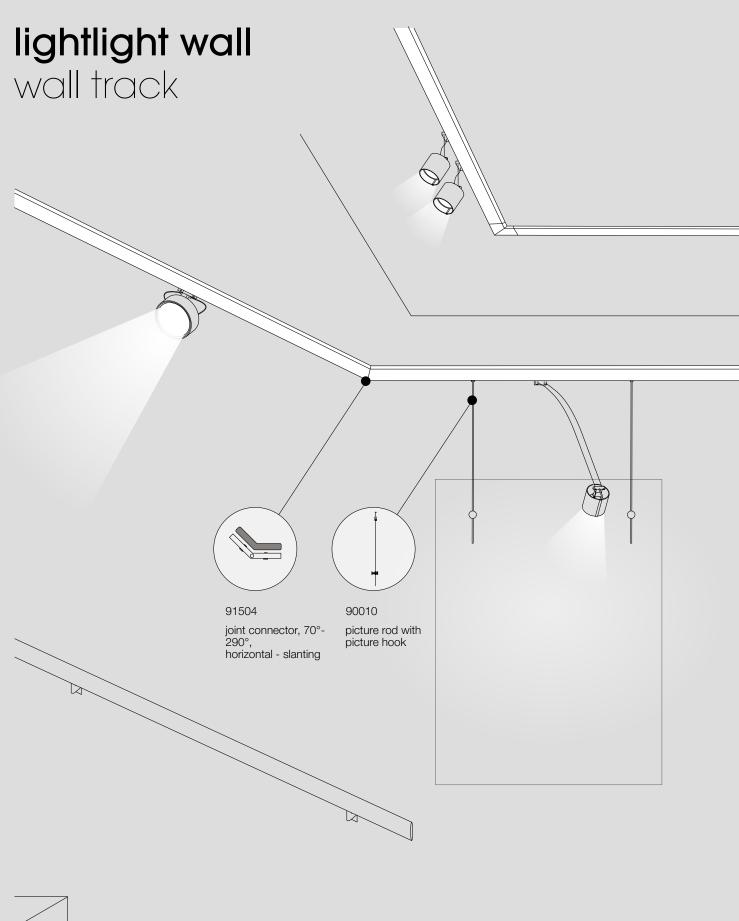
You can select between control gear in a design housing for visible mounting, or control gear for concealed mounting.

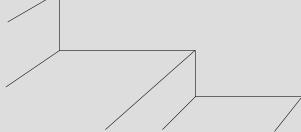
The sum of the total wattage plus the length of the track serve as a basis for the choice of control gear. Please refer to the recommendations listed in the tables.

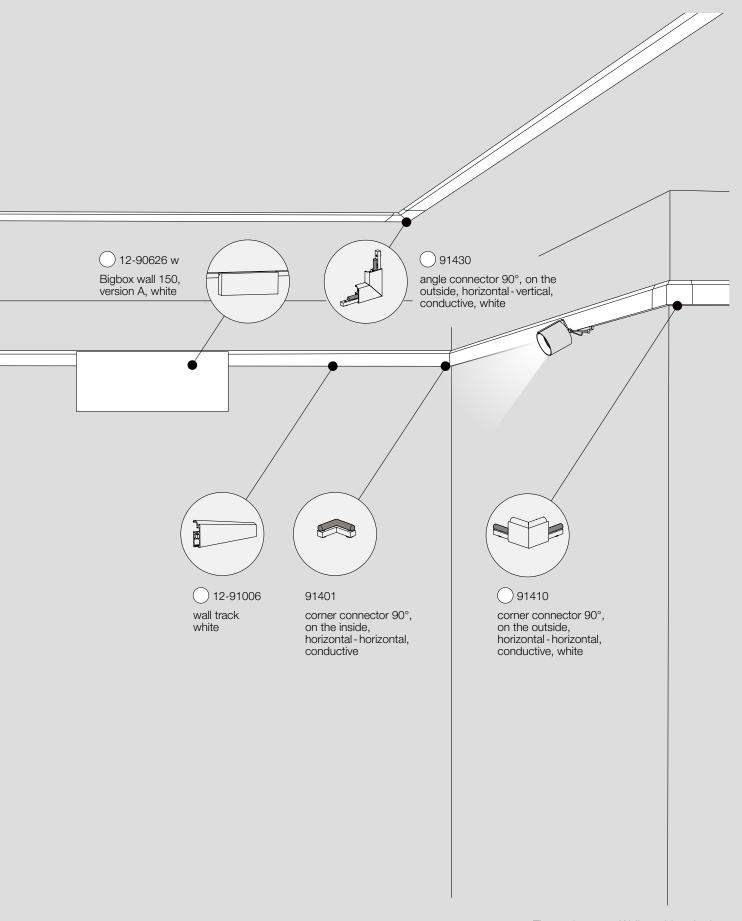
page 79 ff.

7 All prices are recommended sales prices + VAT.

Dimensions are quoted in millimetres, unless otherwise stated.



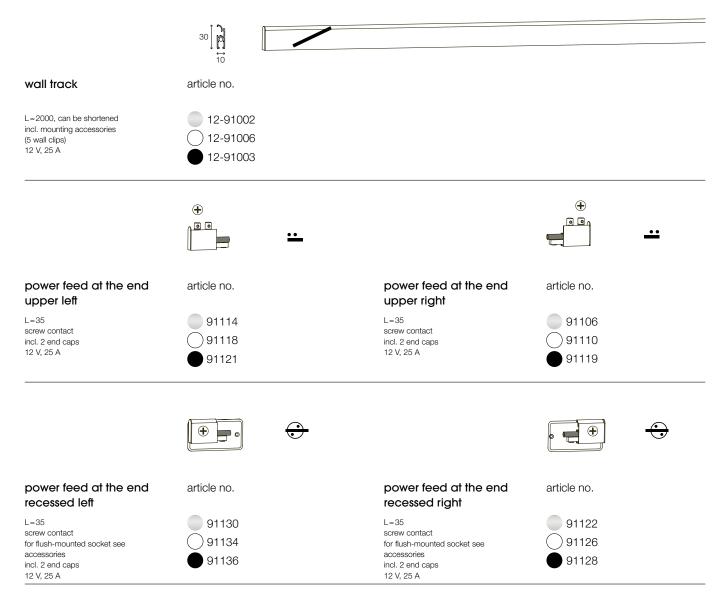


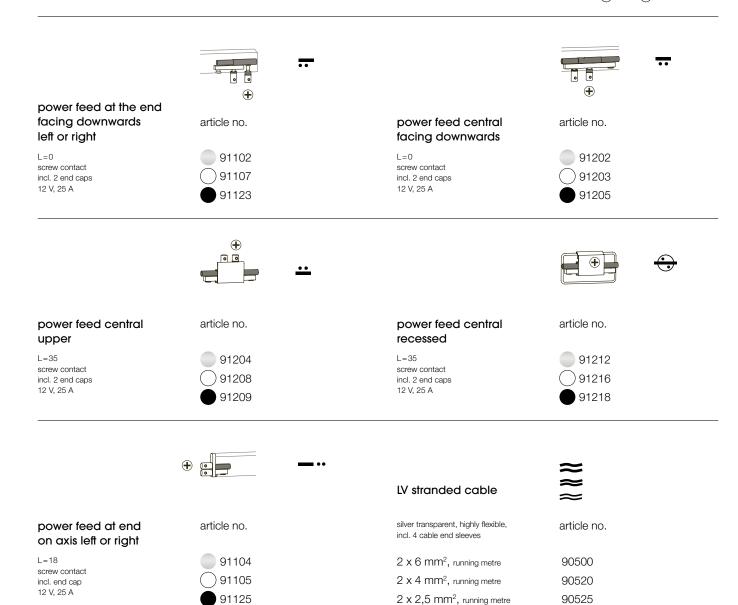


The track system Wall combines both the illumination and hanging of pictures. The track layout can be designed to align with the project at hand. Illuminate your pictures and spaces to meet your wishes and requirements.



### Wall track and power feeds





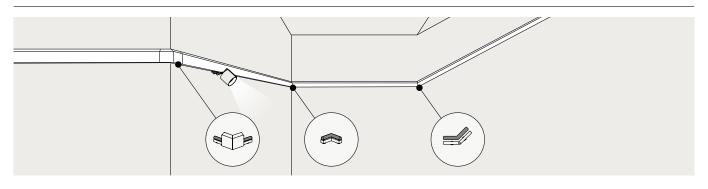


#### recessed socket

article no.

socket type: Kaiser 1048-00

90007



### Connectors







linear connector conductive

L=0

article no.

91302

linear connector insulated

L=1

article no.

91304 91305





corner connector 90°, on the inside, horizontal-horizontal, conductive

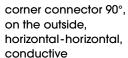
L=0

mitre cut required on site



article no.

91401



L=35



article no.

91410 91414









#### joint connector 80-280° horizontal-horizontal

mitre cut required on site

conductive non-conductive h = o = h article no.

91502 95208

#### joint connector 70-290° horizontal-slanting

mitre cut required on site suitable for staircases

conductive non-conductive h—. article no.

91504 91505

### angle connector 90°, on the inside, horizontal - vertical,

inner conductor on the inside

conductive





### angle connector 90°, on the outside, horizontal-vertical,

conductive

L=50

inner conductor on the outside

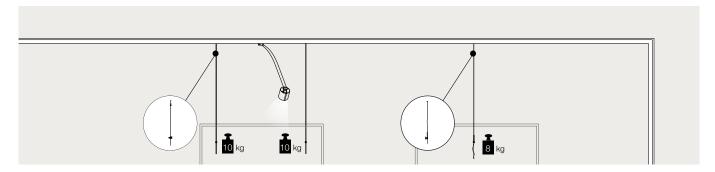


article no.

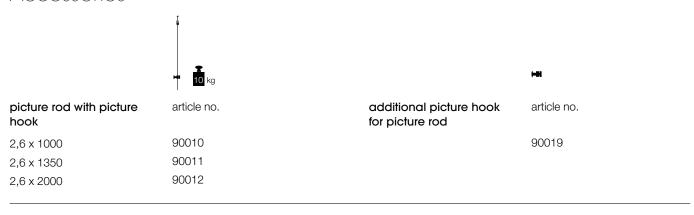




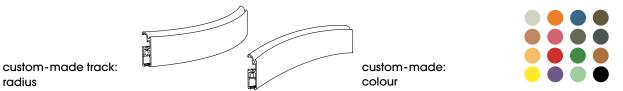
wall lightlight 12 V



### Accessories





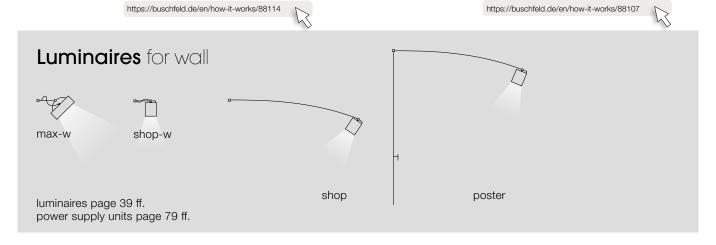


Curved upright sections of track, convex or concave (min. radius of 500 mm), are also available.

Please send us an e-mail with the data applicable for your planned track layout to info@buschfeld.de. See page 95 for further information.

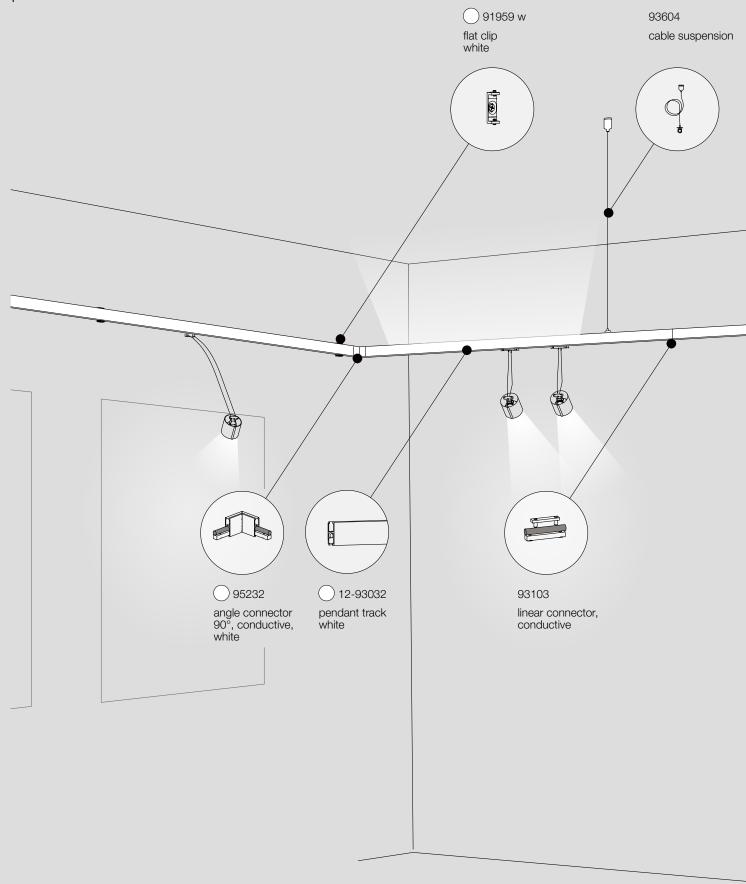
All track and shades can be custom made in the colour (RAL-compliant) of your choice.

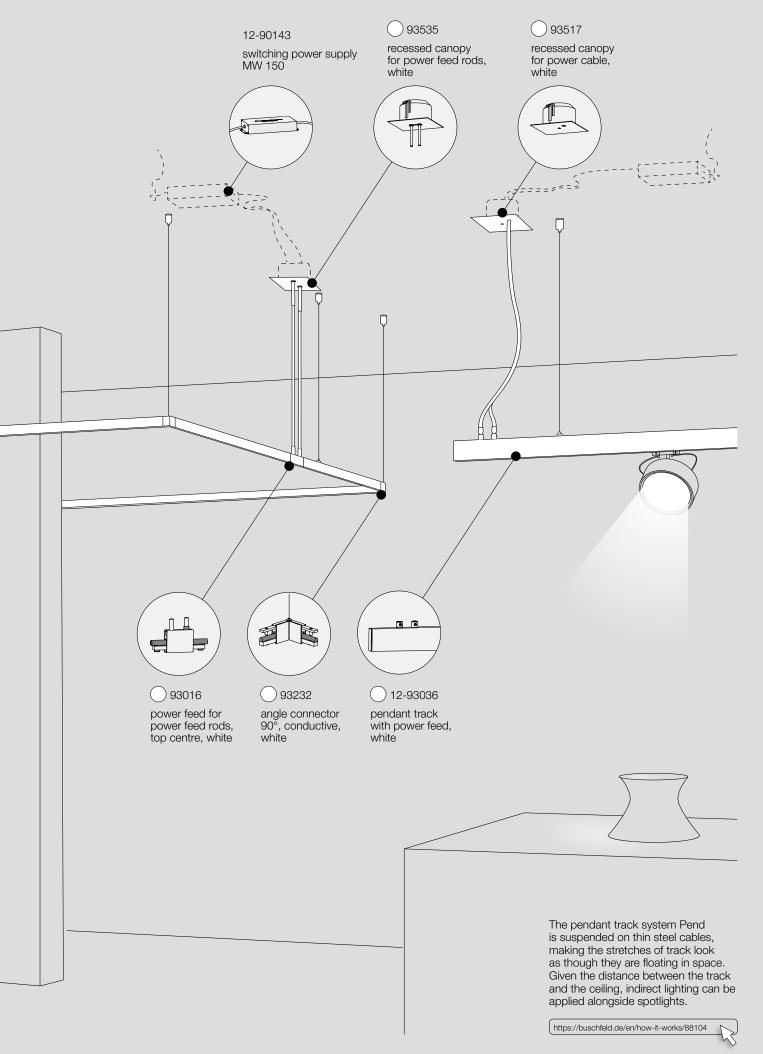
Please send us an e-mail with information with the layout of the track, the number of luminaires, choice of colour(s) to: info@buschfeld.de. See page 96 for further information.

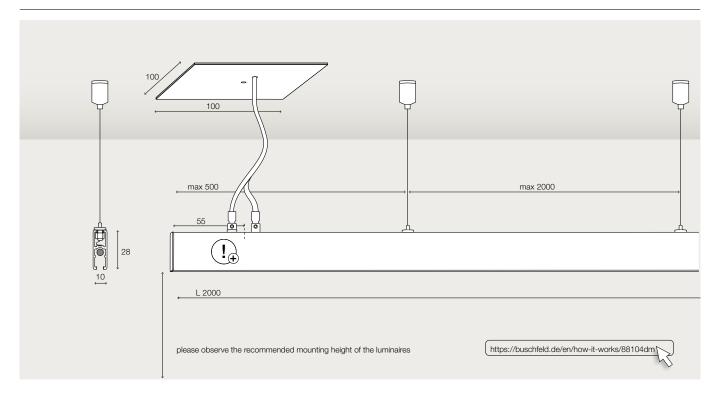


# lightlight pend

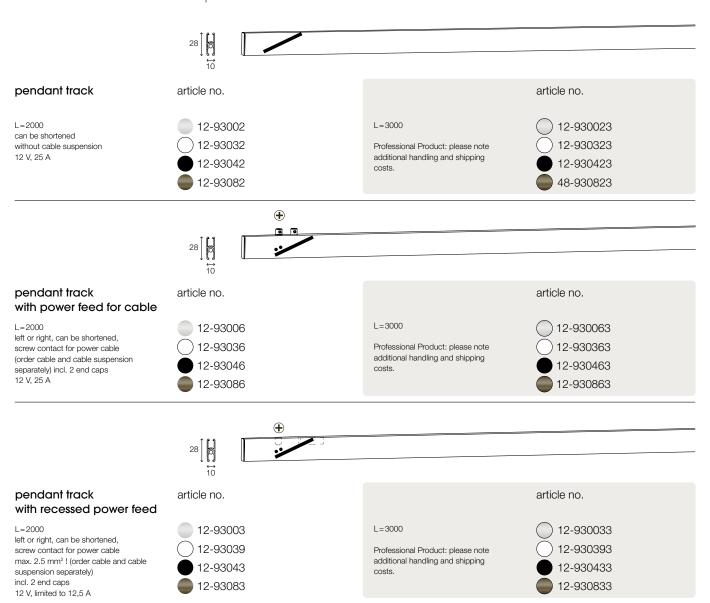
# pendant track

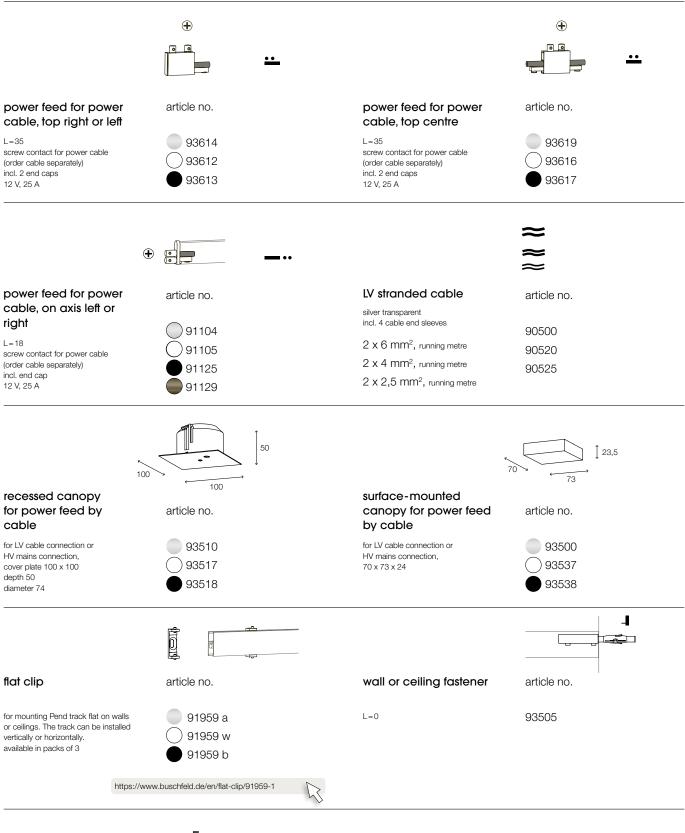






### Pendant track with power feed for cable





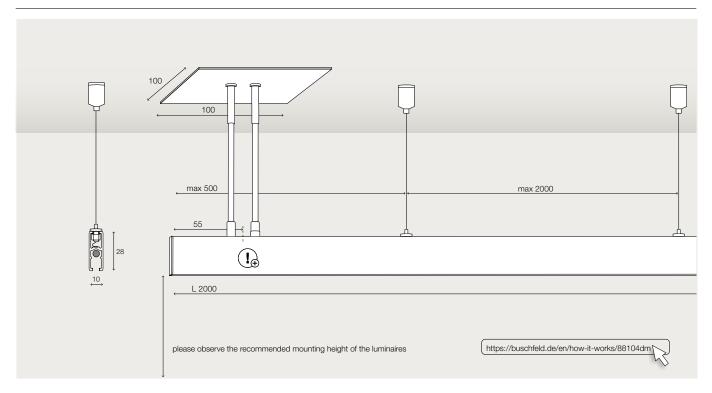


cable suspension article no.

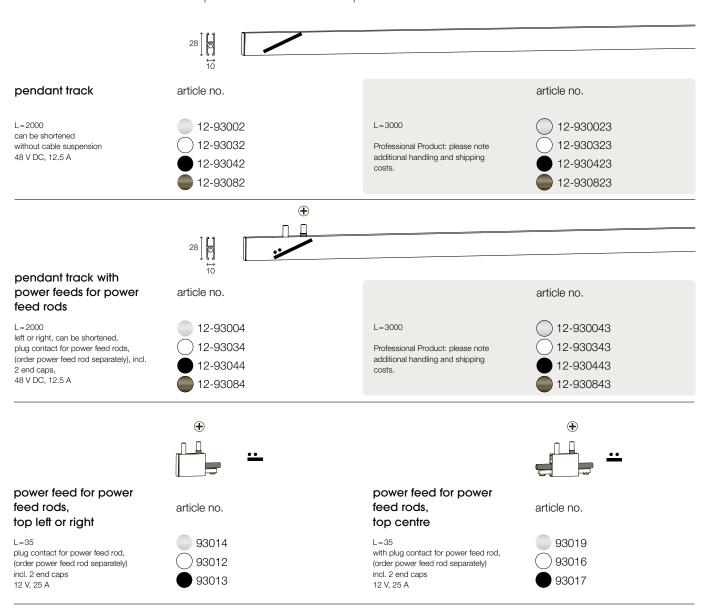
without power feed L=1500 can be positioned as required 93604

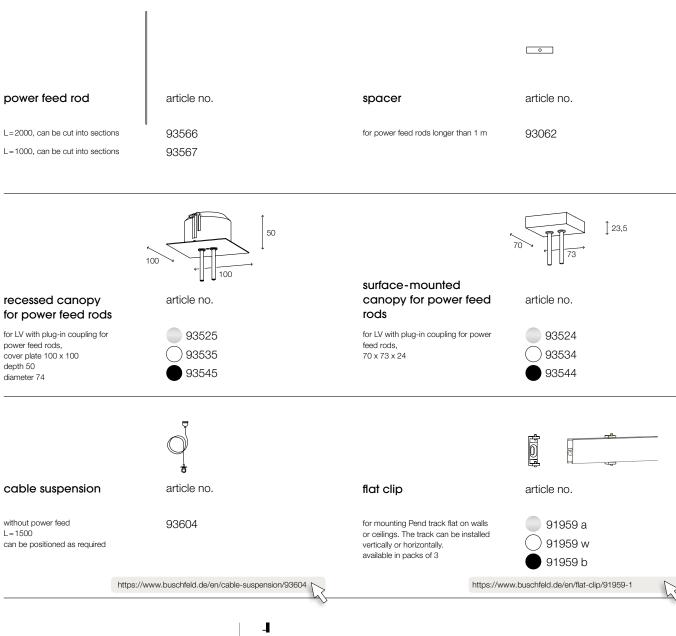
https://www.buschfeld.de/en/cable-suspension/93604





### Pendant track with power feed for power feed rods





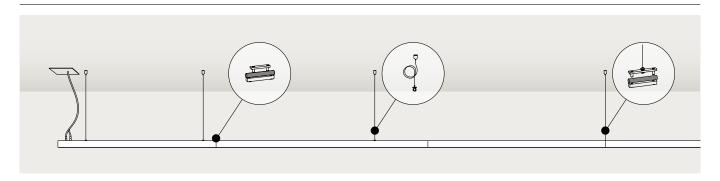
-

wall or ceiling fastener

article no.

L=0

93505

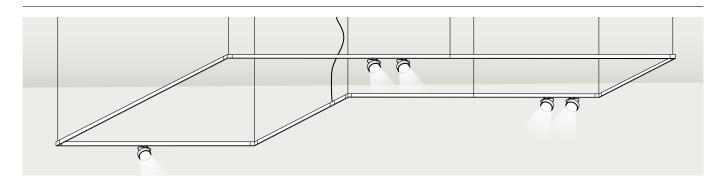


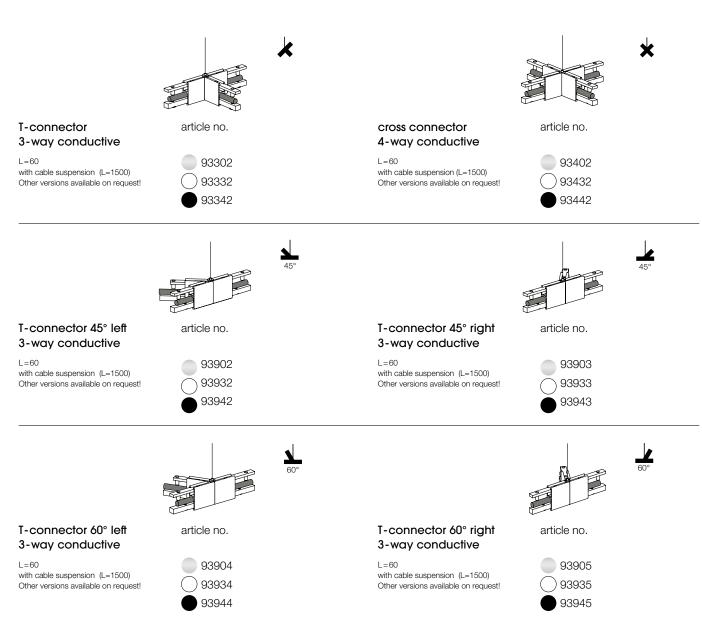
### Connectors



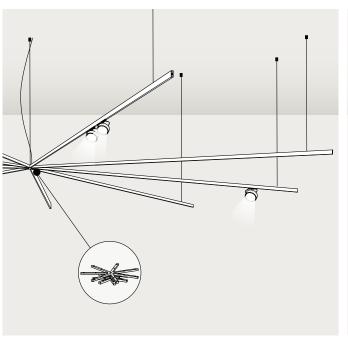
with cable suspension (L=1500)

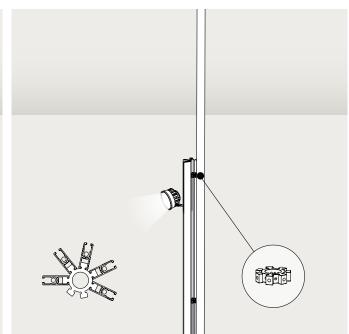
with cable suspension (L=1500)





lightlight 12 V pend





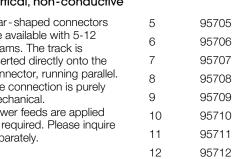
### Connectors



		· U			
star-shaped connectors horizontal, conductive	rays	article no.	star-shaped connectors vertical, non-conductive	rays	article no.
Available with 5-12 beams. 5 The track is inserted directly onto the connector, leading to a central point. 7 The sections of track (the beams) are electrically interconnected. 9	5	95805	Star-shaped connectors	5	95705
	6	95806	are available with 5-12 beams. The track is	6	95706
	7	95807	inserted directly onto the	7	95707
	8	95808	connector, running parallel. The connection is purely	8	95708
	9	95809	mechanical.	9	95709
We are glad to help you achieve your design ideas.	10	95810	Power feeds are applied as required. Please inquire	10	95710
	11	95811	separately.	11	95711
	12	95812		12	95712

https://buschfeld.de/en/how-it-works/88111





https://buschfeld.de/en/how-it-works/88112



### **Luminaires** for pend

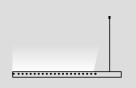












max

flex

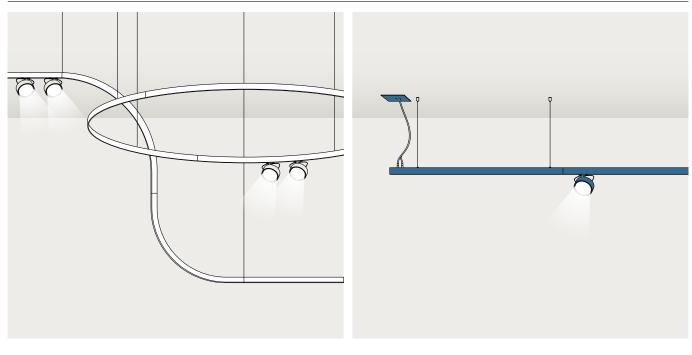
spot 5

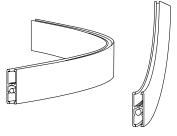
shop 13

shop-v 5

led line

luminaires page 39 ff. power supply units page 79 ff. pend lightlight 12 V





custom-made track: radius

Curved sections of track, flat or upright (min. radius of 500 mm), are also available.

Please send us an e-mail with the data applicable for your planned track layout to info@buschfeld.de See page 95 for further information.

https://buschfeld.de/en/how-it-works/88114





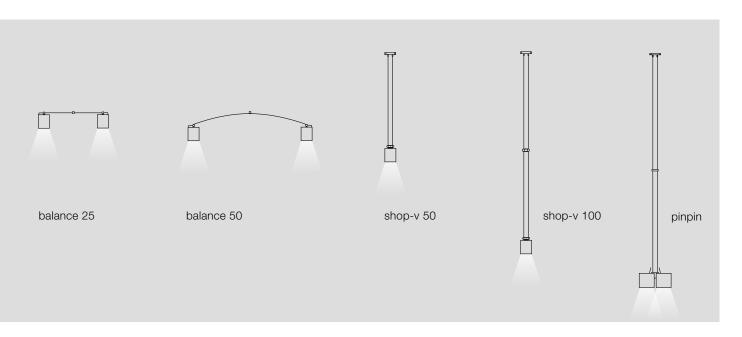
### custom-made: colour

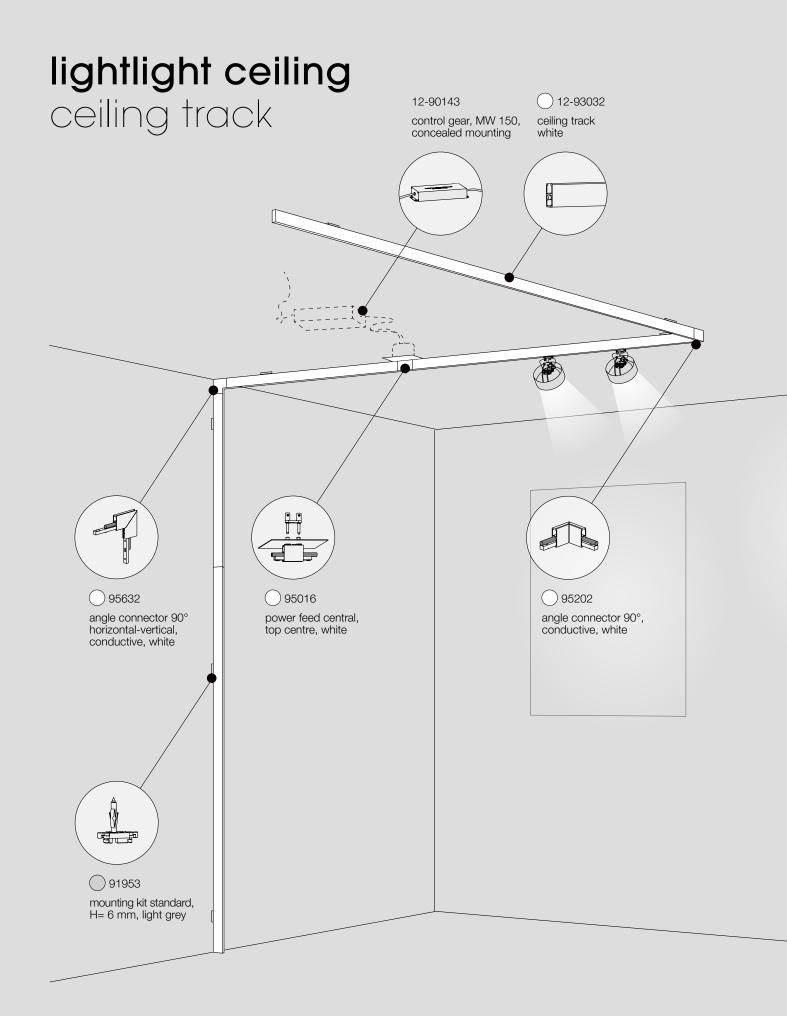
All track and shades can be custom made in the colour (RAL-compliant) of your choice.

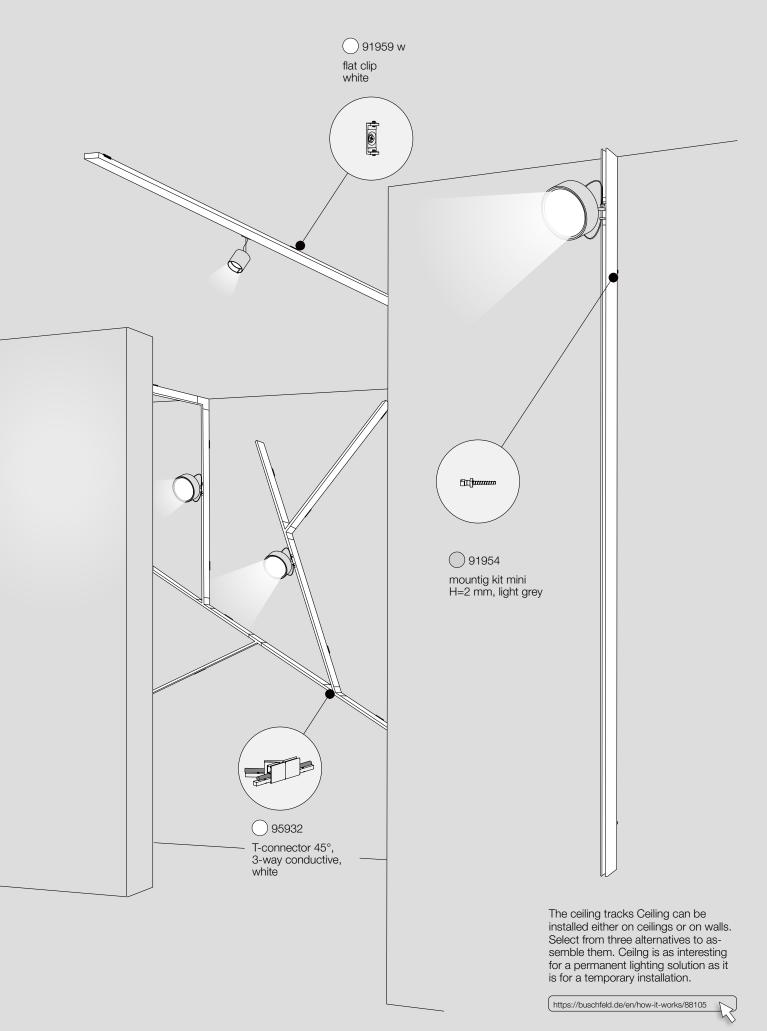
Please send us an e-mail with information with the layout of the track, the number of luminaires, choice of colour(s) to: info@buschfeld.de. See page 96 for further information.

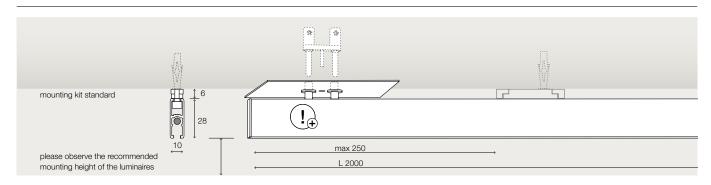
https://buschfeld.de/en/how-it-works/88107







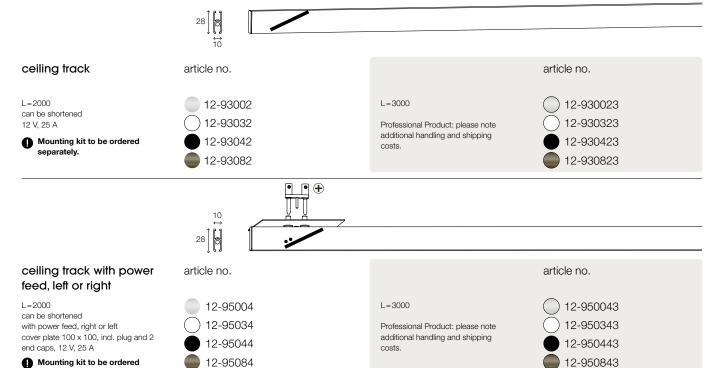




### Ceiling track, power feeds and accessories

28

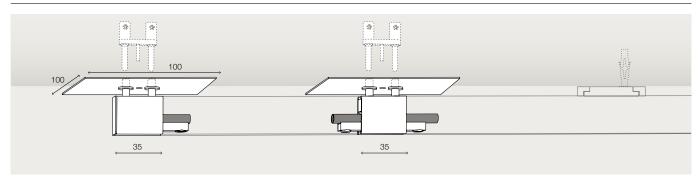
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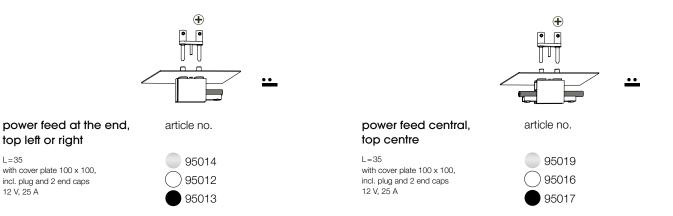


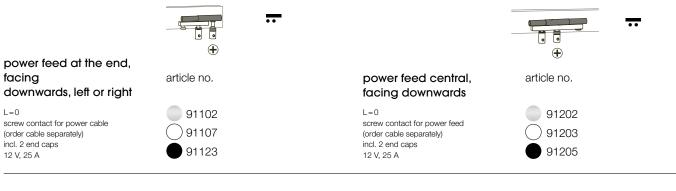


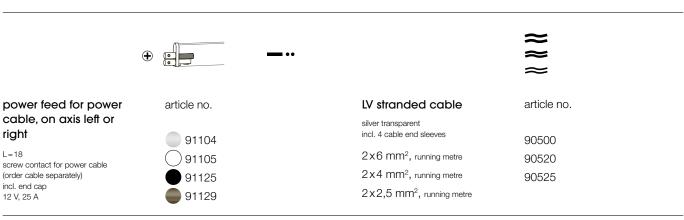


separately.

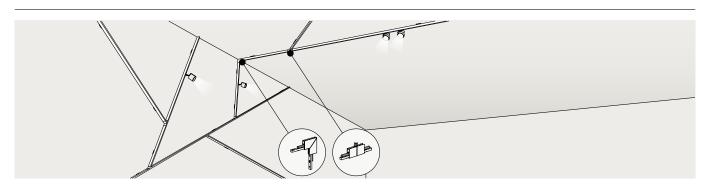












### Connectors





linear connector conductive

L=0

article no.

91302

linear connector insulated

L=1

article no.

91304 91305 91307





### joint connector 80-280° horizontal-horizontal

L=0 mitre cut required on site

conductive non-conductive



article no.

91502 95208

#### joint connector 70 - 290° horizontal-slanting

mitre cut required on site e.g. in stairwells

conductive non-conductive



article no.

91504 91505









#### angle connector 90° conductive

L=35

article no.

95202 95232 95242

#### angle connector 90° insulated

L=35

article no.

95205 95235

95245

#### angle connector 90° on the inside, horizontal-vertical, conductive

inner conductor on the inside



article no.

95602

95632 95642

angle connector 90° on the outside, horizontal-vertical, conductive

L=50

inner conductor on the outside



article no.













#### T-connector 3-way conductive

L=60

Other versions available on request!

article no.

95302 95332

95342

L=60

Other versions available on request!

cross connector

4-way conductive

article no.

95402 95432

95442







#### T-connector 45° left 3-way conductive

L=60

Other versions available on request!

article no.

95902 95932

95942

T-connector 45° right 3-way conductive

L=60

Other versions available on request!

article no.

95903

95933













#### T-connector 60° left 3-way conductive

L=60

Other versions available on request!

article no.

95904

95934 95944 3-way conductive

L=60

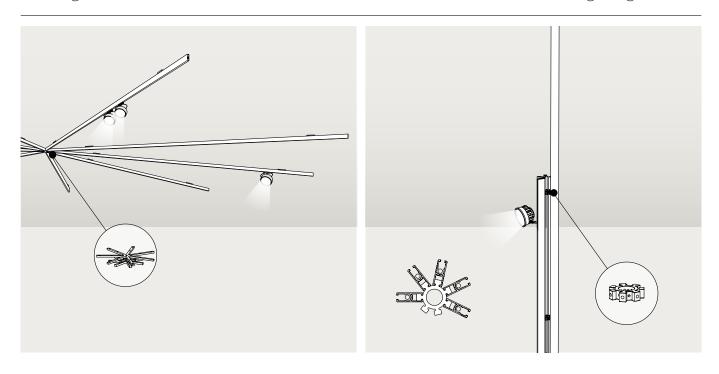
Other versions available on request!

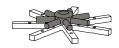
T-connector 60° right

article no.

95905 95935

95945





star-shaped connectors horizontal, conductive	rays	article no.
Star-shaped connectors	5	95805
horizontal, conductive  Available with 5-12 beams.	6	95806
The track is inserted di-	7	95807
rectly onto the connector, leading to a central point.	8	95808
The sections of track (the beams) are electrically interconnected.	9	95809
	10	95810
interconnected.	11	95811
We are glad to help you achieve your design ideas.	12	95812



star-shaped connectors vertical, non-conductive	rays	article no.
Star-shaped connectors vertical, non-conductive Available with 5-12 beams.	5	95705
	6	95706
The track is inserted	7	95707
directly onto the con- nector, running parallel. The connection is purely mechanical. Power feeds are applied as required. Please inquire separately.	8	95708
	9	95709
	10	95710
	11	95711
	12	95712

https://buschfeld.de/en/how-it-works/88111



https://buschfeld.de/en/how-it-works/88112



### Luminaires for ceiling











max

flex

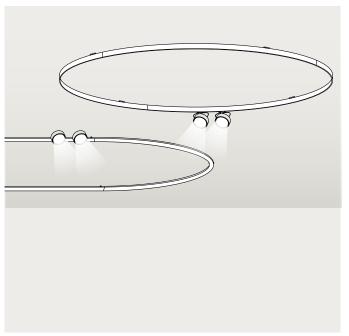
spot 5

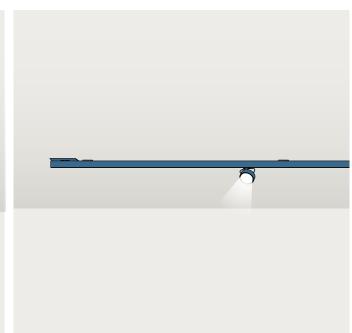
shop 13

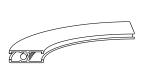
shop-v 5

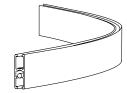
luminaires page 39 ff. power supply units page 79 ff.

ceiling lightlight 12 V









### custom-made track: radius

Curved sections of track, flat or upright (min. radius of 500 mm), are also available.

Please send us an e-mail with the data applicable for your planned track layout to info@buschfeld.de. See page 95 for further information.

https://buschfeld.de/en/how-it-works/88114



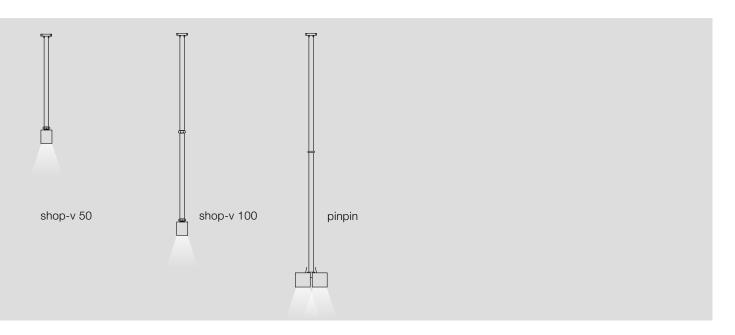
### custom-made: colour

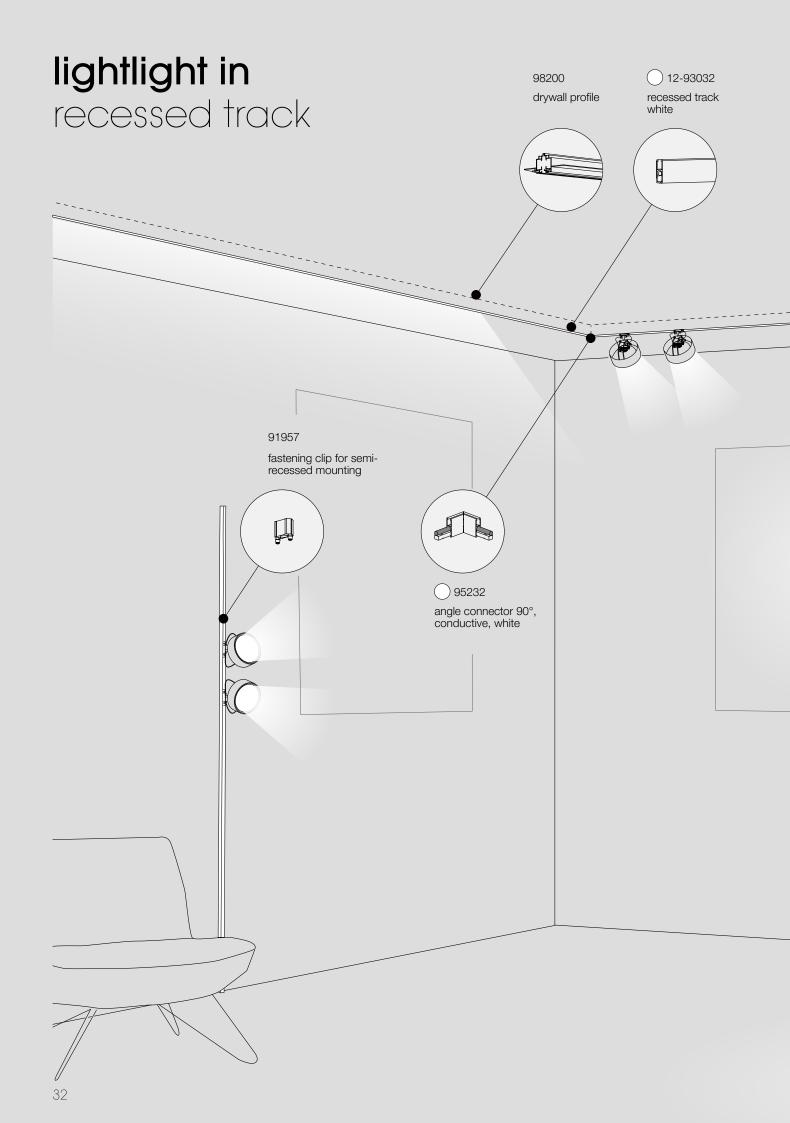
All track and shades can be custom made in the colour (RAL-compliant) of your choice.

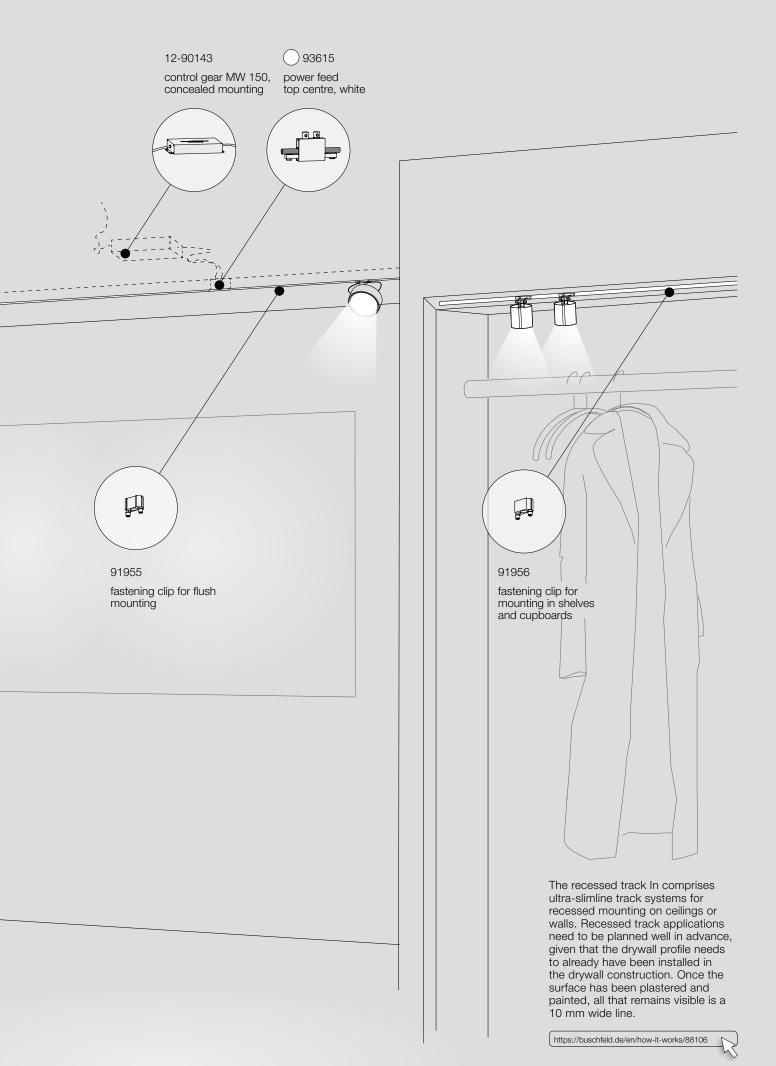
Please send us an e-mail with information with the layout of the track, the number of luminaires, choice of colour(s) to: info@buschfeld.de. See page 96 for further information.

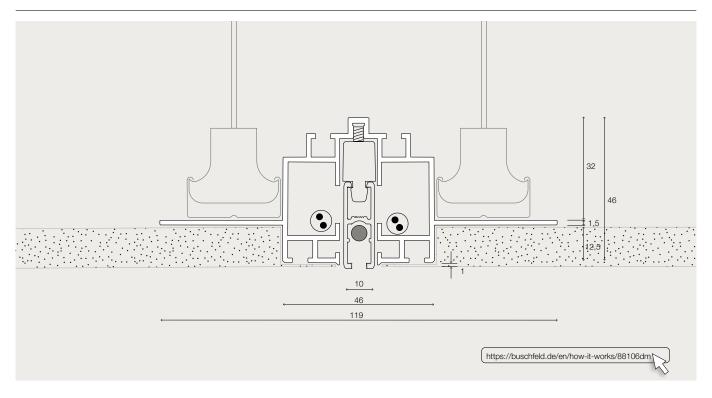
https://buschfeld.de/en/how-it-works/88107



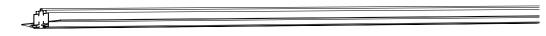








### Drywall profile and accessories



drywall profile

article no.

Aluminium profile for flush mounting on ceilings or walls, horizontal and vertical L=2000, can be shortened,

98200

Mounting kits for recessed track to be ordered separately.



corner element 90° horizontal-horizontal article no.

corner element 90°, horizontal-vertical article no.

Aluminium profile for flush mounting on ceilings or walls

98050

Aluminium profile for flush mounting on ceilings or walls, for horizontal and/ or vertical mounting

98055



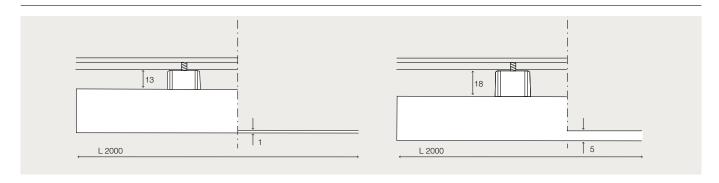
#### LV stranded cable

silver transparent incl. 4 cable end sleeves

article no.

 $\begin{array}{lll} 2 \times 6 \text{ mm}^2, \text{ running metre} & 90500 \\ 2 \times 4 \text{ mm}^2, \text{ running metre} & 90520 \\ 2 \times 2,5 \text{ mm}^2, \text{ running metre} & 90525 \end{array}$ 

lightlight 12 V in







#### mounting kit in for flush mounting

kit for flush mounting of in track, supplied in packs of 5 article no.

91955

mounting kit in for semi-recessed mounting

special kit for semi-recessed mounting of in track. 5 mm of the track remain visible supplied in packs of 5

article no.

91957

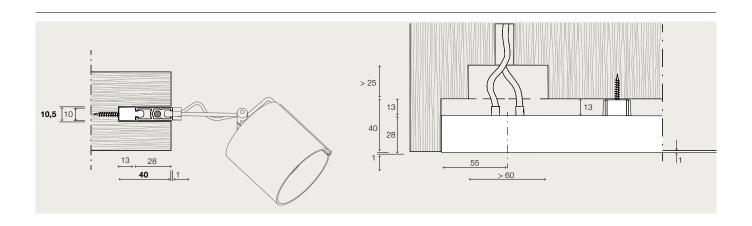


#### distance tape

article no.

required for horizontal mounting of in track L=5000

91958



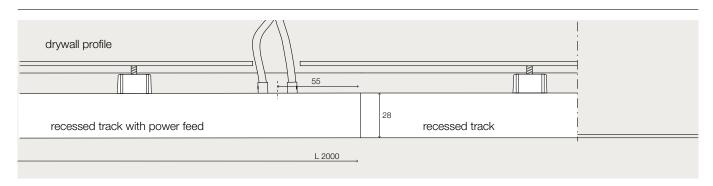


#### mounting kit in for mounting in shelves

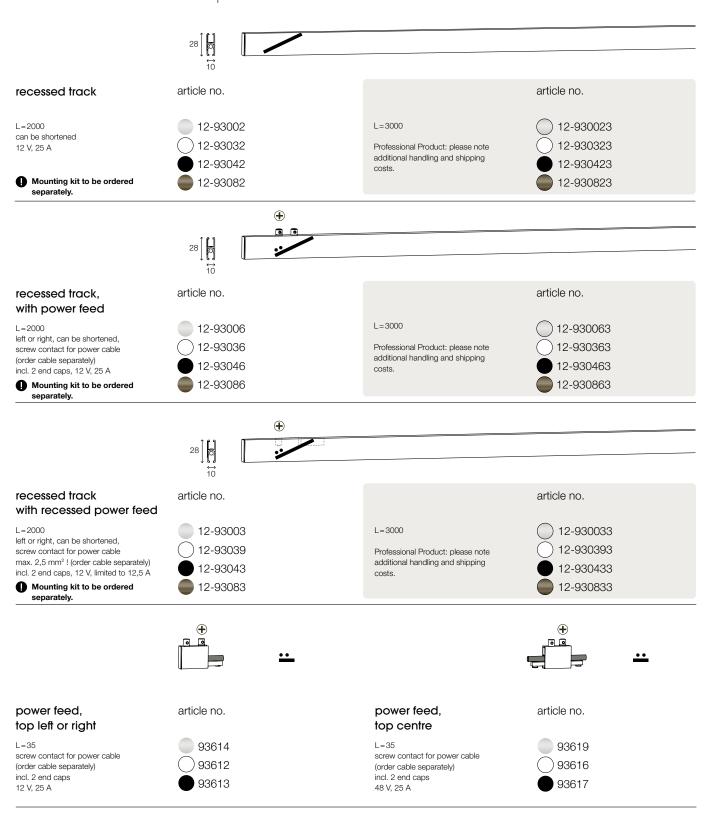
article no.

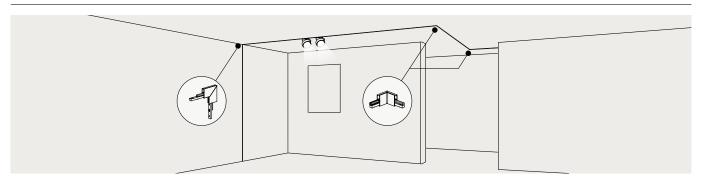
in mounting kit for mounting in shelves (2 pcs.), 1 mm of the track remains visible supplied in packs of 2 NB instructions re. milling!

91956

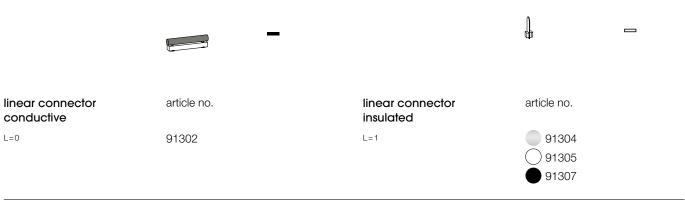


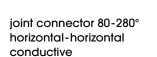
### Recessed track with power feed





#### Connectors





L= 0

mitre cut required on site



article no.

91502



L= 0

mitre cut required on site

non-conductive



article no.

95208









h 🗖

**⊘°**◇

### angle connector 90° conductive

L=35

article no.

95202 95232

95242

### angle connector 90° insulated

L=35



95205

95235 95245

#### angle connector 90° on the inside horizontal-vertical, conductive

L = 50

inner conductor on the inside



article no.



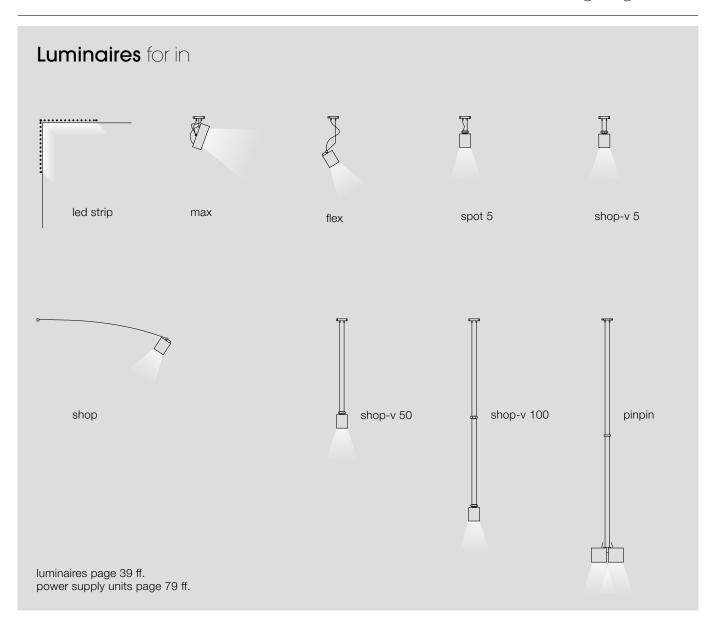
angle connector 90° on the outside horizontal-vertical, conductive

L= 50 inner conductor on the outside



article no.

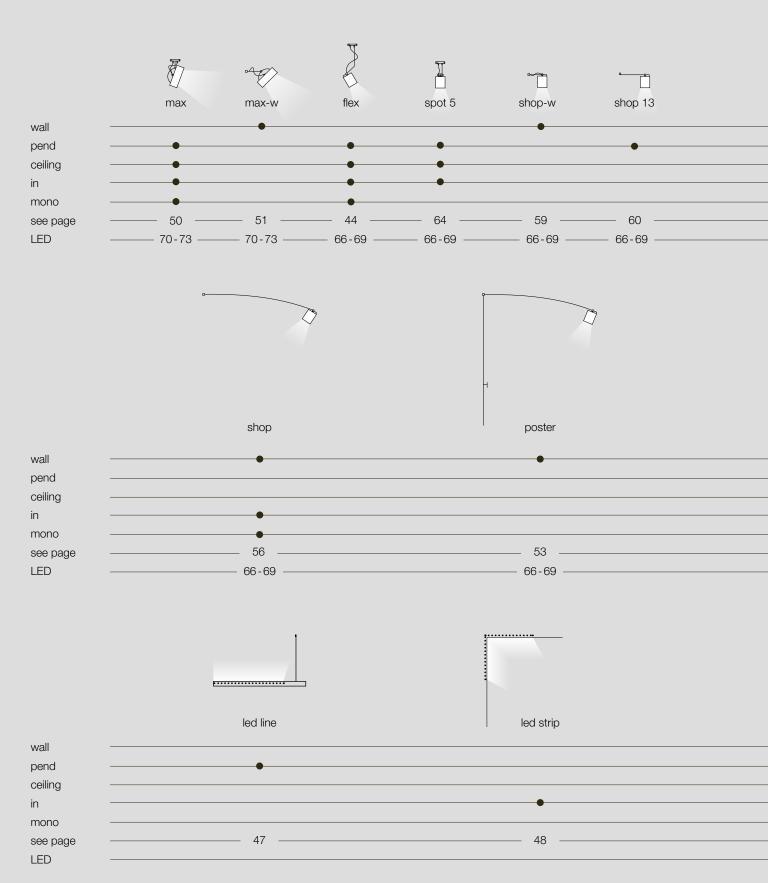


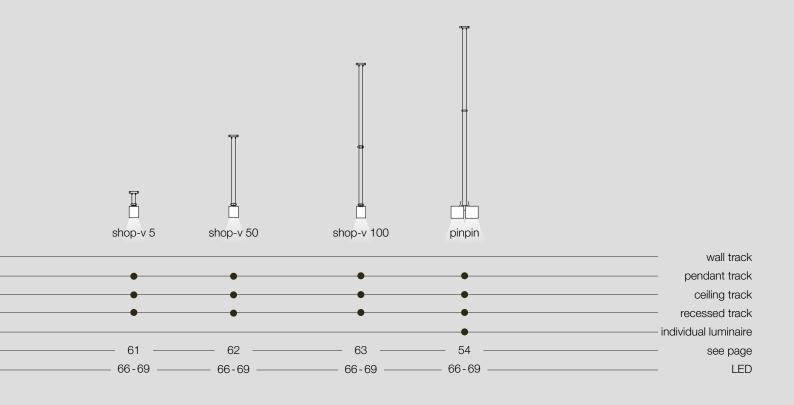


# luminaires 12 V

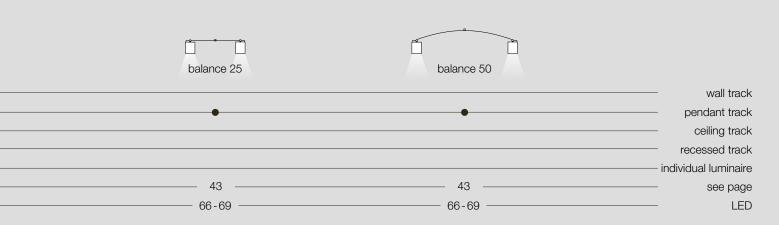
## lightlight luminaires

### overview

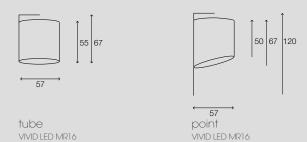


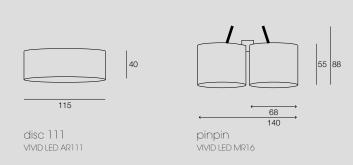


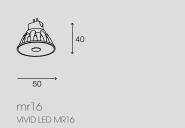




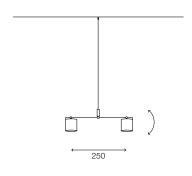
## types of shades







light source without shade



#### balance 25

project luminaire system: pend, rondo

article no. shade

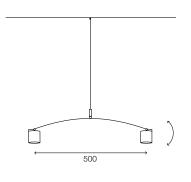
38202 a ) 38202 w 38202 b tube

together with light sources: VIVID LED MR16

38200

together with light sources: VIVID LED MR16

mr16 without shade



#### balance 50

project luminaire system: pend, rondo

37620

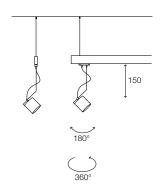
shade article no.

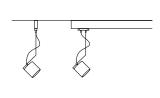
37602 a ) 37602 w 37602 b tube

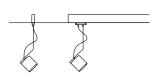
together with light sources: VIVID LED MR16

mr16 without shade

together with light sources: VIVID LED MR16



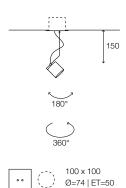




#### flex

directional spotlight system: ceiling, pend, in

shade	article no.	
tube	32102 a 32102 w 32102 b	together with light sources: VIVID LED MR16
point	32103 a 32103 w 32103 b 32103 p	together with light sources: VIVID LED MR16



#### flex mono recessed

directional spotlight system: mono

article no.

28302 a
28302 w
tube
28302 b

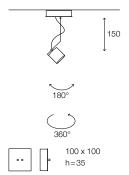
together with light sources: VIVID LED MR16

point

shade

28303 a
28303 w
28303 b
28303 p

together with light sources: VIVID LED MR16



#### flex mono surface-mounted

directional spotlight system: mono

article no.

29302 a
29302 w
tube
29302 b

together with light sources: VIVID LED MR16

point

shade

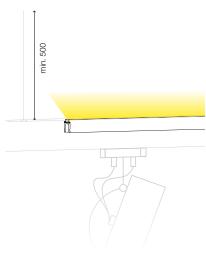
29303 a 29303 w 29303 b 29303 p together with light sources: VIVID LED MR16

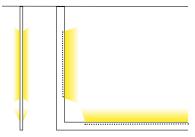
The Flex Mono version for recessed mounting is supplied with wall box and cover plate. The power supply must be ordered separately (page 88). The surface-mounted version is supplied with an integral electronic power supply. Flex Mono spotlights cannot be mounted on walls.

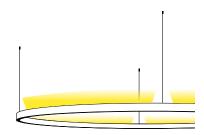


LightLight Pend with Led Line uplight, luminaire Flex with shade Point

lightlight 12 V *luminaires* 







#### led line uplight

project-related luminiare system: pend, rondo

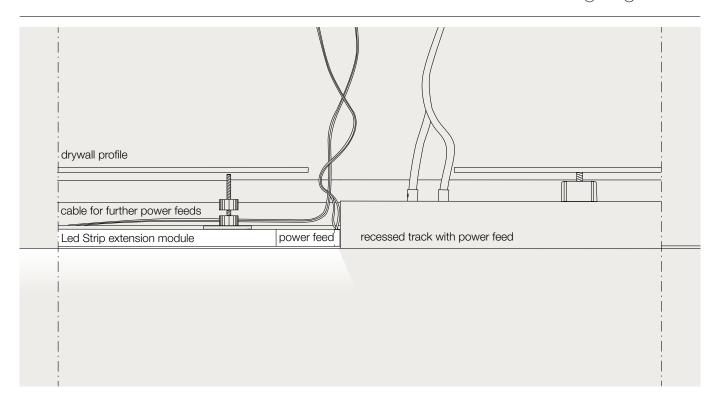
Led Line is an uplight module available in different standard dimensions. It is custom made for projects and pre-installed in LightLight pend track and Rondo ring-shaped track.

In order to be able to make you a detailed offer, we would ask you to send us a sketch indicating the layout of the track and to let us know if you prefer a visible or a concealed power supply unit (48 V). You can contact us at info@buschfeld.de

- operating voltage: 48 V DCNichia LED
- Energy efficiency class: F
  beam angle 120°
- lifespan: > 60.000 h

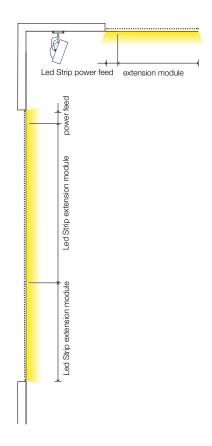
#### 4 options for straight lines

- colour temperature: 2200 K power: ~ 29 W/m
- flux: 3315 lm/m
- luminous efficacy: 115 lm/W
- CRI: > 80
- colour temperature: 2700 K
- power: ~ 38 W/m
- flux: 3000 lm/m
- luminous efficacy: 79 lm/W
- CRI: > 90 and R<sub>o</sub> > 50
- colour temperature: 3000 K power: ~ 38 W/m
- flux: 3000 lm/m
- luminous efficacy: 79 lm/W
- CRI: > 90 and  $R_{o} > 50$
- colour temperature: 4000 K
- power: ~ 29 W/m
- flux: 3750 lm/m
- luminous efficacy: 130 lm/W
- CRI: > 90 and  $R_{\circ} > 50$





# 10,6



#### led strip

project-related luminiare system: in

Led Strips are extremely slimline linear LED modules of a defined length that can be interconnected without tools using the connectors provided giving rise to clear, clean lines of light.

The Led Strip modules are inserted into the drywall profile in the recessed system (see building components on page 34) and, depending on the design, can alternate with the sections of recessed track.

- operating voltage: 24 V DC, dimmable lifespan: 50,000 hours
- Energy efficiency class: G
- colour temperature: 3000 K
- luminous efficacy: 74 lm/W
- protection rating: IP20beam angle: 120°
- CRI: R<sub>a</sub> > 90
- 55 W max. per module combination, then new power feed required!
- supplied with mounting accessories and magnetic clips for latching into place

#### led strip power feed

length	power	article no.
38 mm	1 W	99050

#### led strip extension module, without power feed

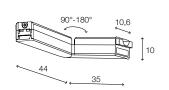
length	flux/ power	article no.
560 mm	533 lm/7 W	99055
839 mm	800 lm/11W	99085
1118 mm	1058 lm/15 W	99105

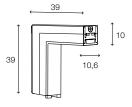
lightlight 12 V *luminaires* 



#### led strip connector

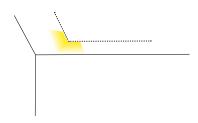






room corner

angle connector



#### room corner, 90°-180°

length power article no. 44 x 35 mm 1 W 99010



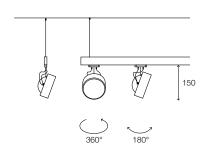
#### angle connector 90°, on the inside, horizontal-vertical

length article no. power 99020 1 W 39 x 39 mm



#### angle connector 90°, on the outside, horizontal-vertical

length power article no. 39 x 39 mm 99022 1 W



#### max

directional spotlight system: pend, ceiling, in, rondo

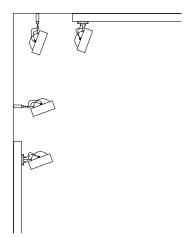
shade

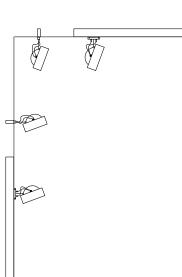
article no.

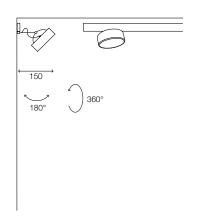




together with light sources: VIVID LED AR111







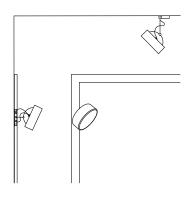
#### max-w

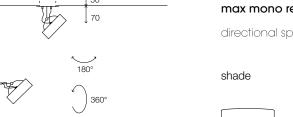
directional spotlight system: wall

article no. shade

60051 a 60051 w disc 111 60051 b

together with light sources: VIVID LED AR111





#### max mono recessed

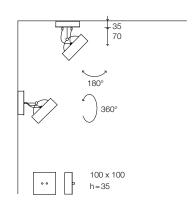
directional spotlight system: mono

article no.

25050 a ) 25050 w disc 111 25050 b

together with light sources: VIVID LED AR111

Recessed version supplied with wall box and cover plate. Power supply must be ordered separately (page 88).



100 x 100 Ø=74 | ET=50

#### max mono surfaced-mounted

directional spotlight system: mono

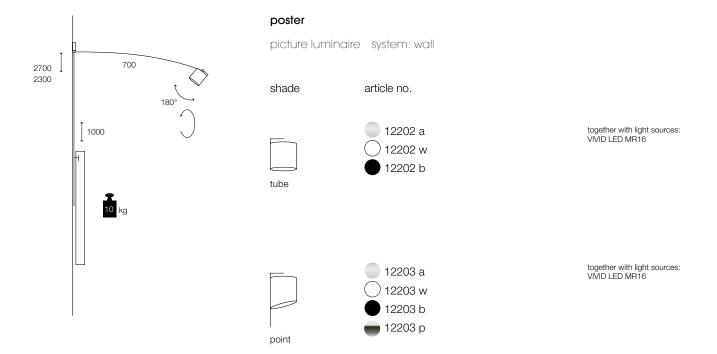
shade article no.

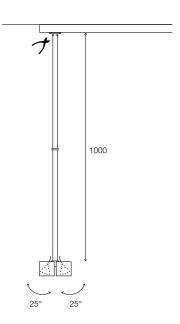
26050 a 26050 w disc 111 26050 b

together with light sources: VIVID LED AR111

Surface-mounted version with integral power supply.

luminaires

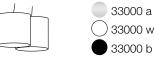




#### pinpin

table and counter luminaire system: pend, ceiling, in

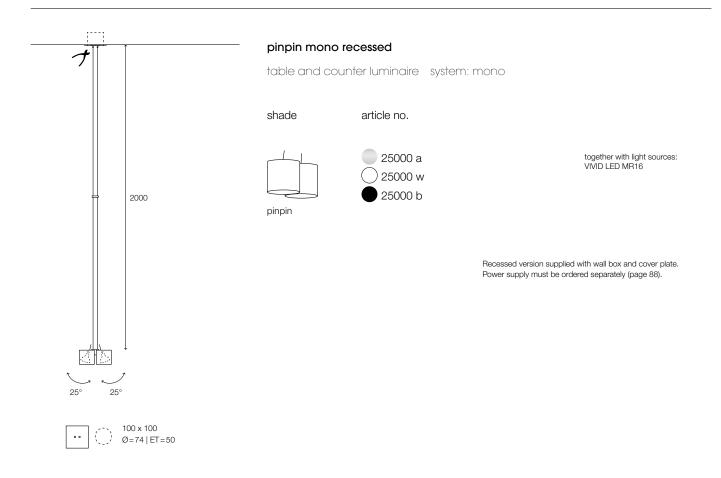
shade article no.

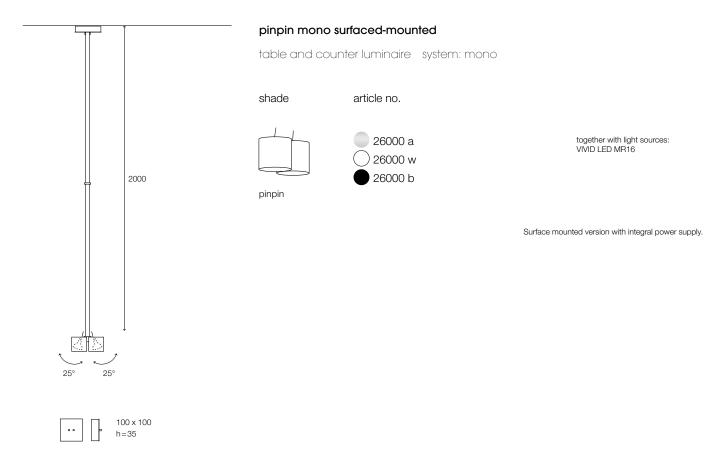


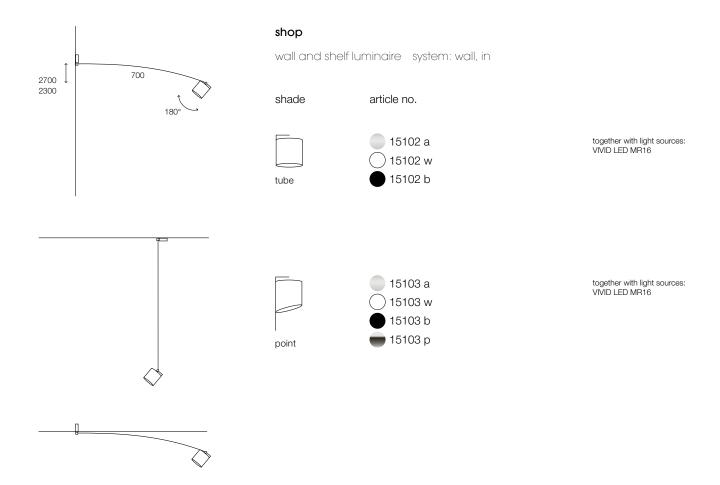
pinpin

together with light sources: VIVID LED MR16

luminaires



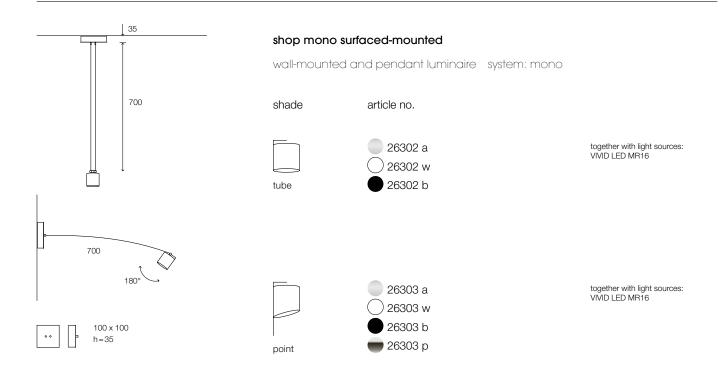




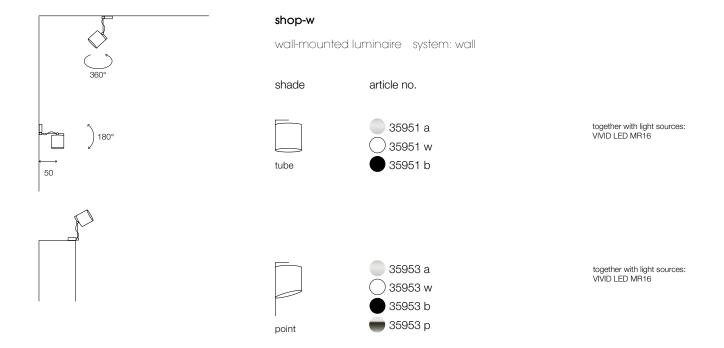
luminaires

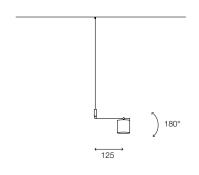


Recessed version supplied with wall box and cover plate. Power supply must be ordered separately (page 90).



Surface-mounted version with integral power supply.



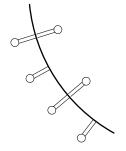




project luminaire system: rondo

shade article no.

35102 a 35102 w tube 35102 b together with light sources: VIVID LED MR16



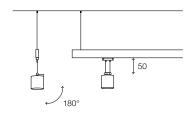


without shade

35100

together with light sources: VIVID LED MR16

in combination with Balance 25



#### shop-v 5

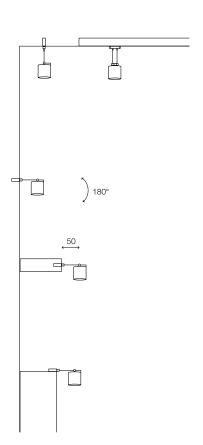
without shade

wall and shelf luminaire system: pend, ceiling, in, rondo, wall\*

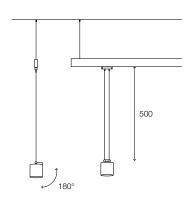
shade	article no.	
tube	35302 a 35302 w 35302 b	together with light sources: VIVID LED MR16







<sup>\*\*</sup>wall applied for a custom solution, e.g. for mounting on/in furniture



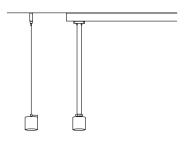
#### shop-v 50

wall and pendant luminaire system: pend, ceiling, in, wall\*

shade article no.

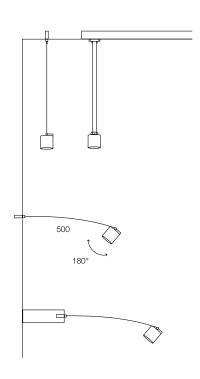
35352 a together with light sources: VIVID LED MR16

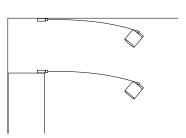
35352 w
tube 35352 b



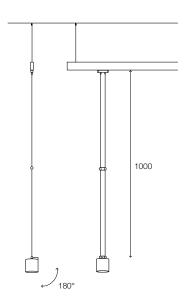


together with light sources: VIVID LED MR16





\*wall applied for a custom solution: ceiling-mounted, and mounted on/in furniture



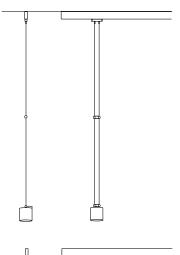
#### shop-v 100

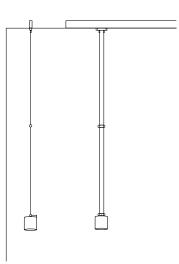
table and counter luminaire system: pend, ceiling, in

shade article no.

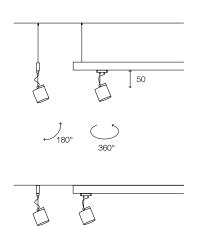
35602 a
35602 w
tube
35602 b

together with light sources: VIVID LED MR16





together with light sources: VIVID LED MR16



#### spot 5

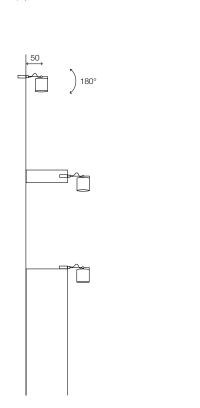
point

directional spotlight system: pend, ceiling, in, rondo

32403 b 32403 p

shade	article no.
tube	32402 a 32402 w 32402 b
	32403 a





# light sources





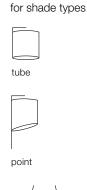
#### VIVID LED MR16

LED lamp QR-CBC51, GU5.3

#### - Ø 50 mm, L = 45,5 mm

- single source LED with single shadow for enhanced perception of textures and materials
- precise light distribution with very little spill
- CRI: R<sub>a</sub> > 95 and R<sub>9</sub> ≥ 95
- excellent colour stability
- excellent white colour rendering
- long lifespan with 35000 h or 50 TSD switching cycles
- no UV/infrared radiation
- automatic power reduction in the event of overheating
- dimmable (observe recommended dimming levels!) to 20 %
- ignition time <0,2 secs
- energy efficiency class G
- Lux<sup>1</sup> = illuminance at the centre of the light source measured at the respective distance
- $Lux^2$  = illuminance at the edge of the beam of light

Technical data subject to change. Current product specifications can be found at www.soraa.com





#### technical data

















Kelvin	lumen	lm/W	wattage beam angle	neadcode	article no.
2700 K	410	55	7,5 W/25°	00931	04-306
2700 K	410	55	7,5 W/36°	00943	04-307
2700 K	465	52	9 W/25°	00955	04-330*
2700 K	465	52	9 W/36°	00963	04-331 *
3000 K	435	58	7,5 W/25°	00935	04-314
3000 K	435	58	7,5 W/36°	00947	04-315
3000 K	490	54	9 W/25°	00959	04-334 *
3000 K	490	54	9 W/36°	00967	04-335 *

<sup>\*</sup>not to be used in recessed downlights or enclosed housings







#### VIVID LED MR16 Snap system

LED lamp QR-CBC51, GU5.3

- Ø 50 mm, L = 45,5 mm
- single source LED with single shadow for enhanced perception of textures and materials
- precise light distribution with very little spill
- CRI: R<sub>a</sub> > 95 and R<sub>9</sub> ≥ 95
- excellent colour stability
- excellent white colour rendering
- long lifespan with 35000 h or 50 TSD switching cycles
- no UV/infrared radiation
- automatic power reduction in the event of overheating
- dimmable (observe recommended dimming levels!) to 20 %
- ignition time <0,2 secs
- energy efficiency class G

In addition to the above-mentioned features this 10° LED light source disposes over a self-centering magnet which allows a wide range of filters or honeycomb louvres to be clicked into place without tools. It is also possible to adjust the beam angle simply from 10° to 36°, for example, and to change the shape of the beam from circular to rectangular. The Snap system cuts down storage costs, given that only one type of light source needs to be ordered and used for multiple applications. Maximum flexibility up to the time of installation. Filters can be applied on a temporary basis for effect. Different combinations of filters can be applied. 10 % brightness loss should be reckoned for every filter applied.

- Lux<sup>1</sup> = illuminance at the centre of the light source measured at the respective distance
- $Lux^2$  = illuminance at the edge of the beam of light

Technical data subject to change.

Current product specifications can be found at www.soraa.com

#### for shade types



tube

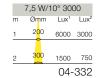


point



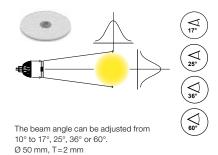
#### technical data





Kelvin	lumen	lm/W	wattage beam angle	neadcode	article no.
2700 K	390	52	7,5 W/10°	00919	04-328
3000 K	410	55	7,5 W/10°	00923	04-332

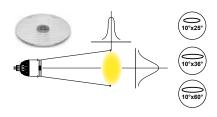
More information on Snap system filters can be found on the following pages.



#### beam angle circular

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

beam angle	neadcode	article no.
17°	03263	409
25°	00325	410
36°	00327	411
60°	00329	412

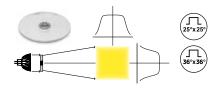


For the creation of asymmetric light beams, in particular for the illumination of linear objects. Given the oval shape of the light beam from just one light source per exhibit, fewer luminaires are required. Ø 50 mm, T=2 mm

#### beam angle oval

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

beam angle	neadcode	article no.
10° x 25°	00331	413
10° x 36°	00333	414
10° x 60°	03259	418

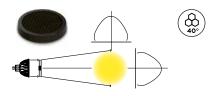


The circular shape of the 10° light beam is modified to generate a rectangular shaped beam: for square light fields on walls and floors. Uniform spread of light across the designated surface. No fading light along the edges.  $\oslash$  50 mm, T=2 mm

#### beam angle rectangular

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

beam angle	neadcode	article no.
25° x 25°	00335	415
36° x 36°	00337	416

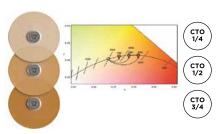


For glare control Ø 51.1 mm, T=9 mm

#### honeycomb louvre

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

beam angle	neadcode	article no.
40°	00339	417



For shifting the colour temperature to simulate dimmable warm white lighting conditions. Also on a temporary basis, for example on festive occasions. Ø 50 mm, T=2 mm

Effect achieved:

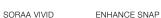
Initial colour temp.	1/4 CTO	1/2 CTO	3/4 CTO
2700 K	2450 K	2200 K	2000 K
3000 K	2700 K	2400 K	2200 K

#### shifting colour temperature

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

CTO Colour Temperature Orange	neadcode	article no.
1/4	00323	400
1/2	00321	401
3/4	00319	402









Filter for enhanced colour quality. Increases the vibrance of warm colours (red, orange and pink) and green. Ideal for applications where different colours need to be rendered perfectly. Underscores the richness of colours.  $\emptyset$  50 mm, T=2 mm

#### colour enhancement filter

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

neadcode	article no.
03281	405





E1

For application with coloured foil or dichroic filters to generate special atmospheres or effects.

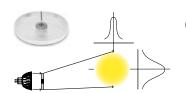
Ø 50 mm, T=2 mm

#### transparent filter

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

neadcode article no.

02183 403



Using two rotatable filter discs, the filter can change the beam spread from 0° to 20° without changing the colour temperature or the beam shape. Ø 50 mm, T=2 mm

#### filter disc

accessories for VIVID LED MR16 (12 V) and fifty (48 V) with Snap System

neadcode article no.

03255 404





#### **VIVID LED AR111**

aluminium lamp QR111, GU53

#### for shade types

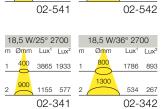
- Ø 111 mm, L = 57 mm
- single source LED with single shadow for enhanced perception of textures and materials
- precise light distribution with very little spill
- Ra > 95 and R9  $\geq$  95
- excellent colour stability
- excellent white colour rendering
- long lifespan with 35000 h or 50 TSD switching cycles
- no UV/infrared radiation
- automatic power reduction in the event of overheating
- dimmable (observe recommended dimming levels!) to 20 %
- ignition time <0,2 secs
- Lux<sup>1</sup> = illuminance at the centre of the light source measured at the respective distance
- $Lux^2$  = illuminance at the edge of the beam of light
- energy efficiency class G

Technical data subject to change. Current product specifications can be found at www.soraa.com

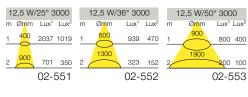
#### ide types technical data





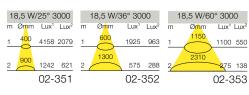


12,5 W/25° 2700



12,5 W/36° 2700

866 433



Kelvin	lumens	lm/W	wattage beam angle	neadcode	article no.
2700 K	575	46	12,5 W/25°	01429	02-541
2700 K	575	46	12,5 W/36°	01431	02-542
2700 K	930	50	18,5 W/25°	01027	02-341
2700 K	930	50	18,5 W/36°	01029	02-342
3000 K	620	50	12,5 W/25°	01445	02-551
3000 K	620	50	12,5 W/36°	01447	02-552
3000 K	620	50	12,5 W/50°	01449	02-553 *
3000 K	1000	54	18,5 W/25°	01043	02-351
3000 K	1000	54	18,5 W/36°	01045	02-352

<sup>\* (</sup>discontinued product)





### VIVID LED AR111 Snap system

aluminium lamp QR111, GU53



- single source LED with single shadow for enhanced perception of textures and materials
- precise light distribution with very little spill
- Ra > 95 and R9  $\geq$  95
- excellent colour stability
- excellent white colour rendering
- long lifespan with 35000 h or 50 TSD switching cycles
- no UV/infrared radiation
- automatic power reduction in the event of overheating
- dimmable (observe recommended dimming levels!) to 20 %
- ignition time <0,2 secs
- energy efficiency class G

In addition to the above-mentioned features of the AR 111, these 8° or 9° LED light sources dispose over a self-centering magnet which allows a wide range of filters or honeycomb louvres to be clicked into place without tools. It is also possible to adjust the beam angle simply from 8°/9° to 36°, for example, and to change the shape of the beam from circular to rectangular.

The Snap system cuts down storage costs, given that only one type of light source needs to be ordered and used for multiple applications. Maximum flexibility up to the time of installation. Filters can be applied on a temporary basis for effect. Different combinations of filters can be applied. 10 % brightness loss should be reckoned for every filter applied.

- Lux<sup>1</sup> = illuminance at the centre of the light source measured at the respective distance
- $Lux^2$  = illuminance at the edge of the beam of light

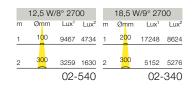
Technical data subject to change. Current product specifications can be found at w ww.soraa.com

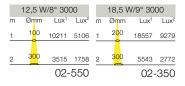
#### for shade types



disc 111

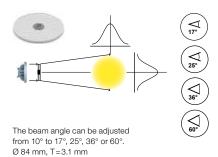
#### technical data





Kelvin	lumens	lm/W	wattage beam angle	neadcode	article no.
2700 K	575	46	12,5 W/8°	01427	02-540
2700 K	930	50	18,5 W/9°	01025	02-340
3000 K	620	50	12,5 W/8°	01443	02-550
3000 K	1000	54	18,5 W/9°	01041	02-350

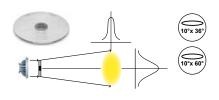
More information on Snap system filters can be found on the following pages.



#### beam angle circular

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

beam angle	neadcode	article no.
17°	03265	439
25°	01145	440
36°	01147	441
60°	01149	442

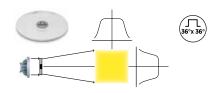


For the creation of asymmetric light beams, in particular for the illumination of linear objects. Given the oval shape of the light beam from just one light source per exhibit, fewer luminaires are required. Ø 84 mm, T=3.1 mm

#### beam angle oval

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

beam angle	neadcode	article no.
10° x 36°	01595	444
10° x 60°	03261	445

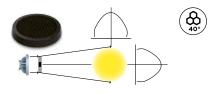


The circular shape of the 10° light beam is modified to generate a rectangular shaped beam: for square light fields on walls and floors. Uniform spread of light across the designated surface. No light fade along the edges. Ø 84 mm, T=3.1 mm

#### beam angle rectangular

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

beam angle	neadcode	article no.
36° x 36°	01597	451

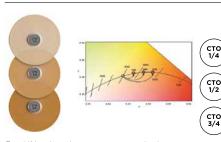


For glare control Ø 84 mm, T=9 mm

#### honeycomb louvre

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

beam angle	neadcode	article no.	
40°	01151	447	



For shifting the colour temperature to simulate dimmable warm white lighting conditions. Also on a temporary basis, for example on festive occasions.

Ø 84 mm, T=3.1 mm

Initial colour temp.	1/4 CTO	1/2 CTO	3/4 CTO
2700 K	2450 K	2200 K	2000 K
3000 K	2700 K	2400 K	2200 K

#### shifting colour temperature

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

CTO Colour Temperature Orange	neadcode	article no.
1/4	01153	430
1/2	01155	431
3/4	01157	432





SORAA VIVID







Filter for enhanced colour quality. Increases the vibrance of warm colours (red, orange and pink) and green. Ideal for applications where different colours need to be rendered perfectly. Underscores the richness of colours.

Ø 84 mm, T=3.1 mm

#### colour enhancement filter

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

neadcode	article no.
03283	450





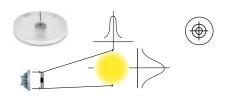
For application with coloured foil or dichroic filters to generate special atmospheres or effects.  $\oslash$  84 mm, T=3.1 mm

#### transparent filter

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

neadcode	article no.

02185 448



Using two rotatable filter discs, the filter can change the beam spread from 0° to 20° without changing the colour temperature or the beam shape.  $\oslash$  84 mm, T=3.1 mm

#### filter disc

accessories for VIVID LED AR111 (12 V) and ninety-five (48 V) with Snap System

neadcode	article no.





#### **ALULINE LED**

LED reflector lamp QR-C38, B15d

for shade types \*



- 25000 h
- Ø 37 mm, L=42 mm
- LED retrofit light source colour rendering > 92
- long lifespan
- no UV/infrared radiation
- energy efficiency class G
- Lux¹ = illuminance at the centre of the light source measured at the respective distance Lux² = illuminance at the edge of the beam of light

1	7
b1	5

m	<del>m</del> m و	Lux.	Lux
1	600	749	375
2	1300	268	134
			96

Kelvin	Lumen	wattage beam angle	article no.
2700 K	240	5 W/35°	96

★ Shade type b15 is no longer available. Aluline LED for light source replacement

#### **FILAMENT LED**

pin-base lamp LED, G4

for shade types



technical data



- 25000h

- Ø 9 mm L = 20 mm
- 130 lumens (similar to 10W halogen)
- silicone encapsulation
- not dimmable
- energy efficiency class G

mirror luminaires

Kelvin	Lumen	wattage beam angle	article no.
3000 K	130	1,5 W/330°	89

# **Creative Collection**



- Ø 850 mm
- 138 handmade transparent borosilicate glass elements
- 4 luminaires sourced with VIVID LEDs
- 4 suspension cables, hollow wall box and cover plate
- incl. electronic transformer (170 x 45 x 35 mm) for concealed mounting

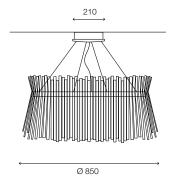
If required, Rondo Fano 1 can be supplied with more luminaires than those listed above. Other diameters are also possible.

#### rondo fano 1 recessed

chandelier

article no.

96501



- Ø 850 mm
- 138 handmade transparent borosilicate glass elements
   4 luminaires sourced with VIVID LEDs
   4 suspension cables

- ceiling unit (Ø 210 mm) with integral design transformer

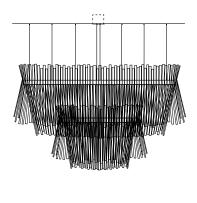
If required, Rondo Fano 1 can be supplied with more luminaires than those listed above. Other diameters are also possible.

#### rondo fano 1 surface-mounted

chandelier

article no.

96701



rondo fano 2 recessed

chandelier

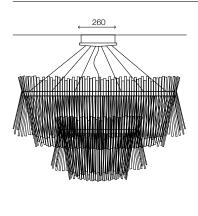
article no.

96500

1150

- Ø 1150 mm
- 6 luminaires sourced with VIVID LED
- 300 handmade transparent borosilicate glass elements
- 6 suspension cables, hollow wall box and cover plate
- Incl. electronic transformer (170 x 45 x 35 mm) for concealed mounting

If required, Rondo Fano 2 can be supplied with more luminaires than those listed above. Other diameters are also possible.



rondo fano 2 surface-mounted

chandelier

article no.

96700

1150

- Ø 1150 mm
- 300 handmade transparent borosilicate glass elements 6 luminaires sourced with VIVID LED 6 suspension cables

- ceiling unit (Ø 260 mm) with integral design transformer

If required, Rondo Fano 2 can be supplied with more luminaires than those listed above. Other diameters are also possible.

# control gear

### index

# design control gear

	article no.	wall	pend	ceiling	in	mono
box wall 105	12-90610	•				
box wall 225	12-90624	•				
cube wall 300	12-90740	•				
bigbox wall 150	12-90626	•				
bigbox wall 264	12-90627	•				
box pend/ceiling 105	12-90620		•	•		
box pend/ceiling 225	12-90635		•	•		
cube pend/ceiling 300	12-90725		•	•		
bigbox pend/ceiling 150	12-90636		•	•		
bigbox pend/ceiling 264	12-90637		•	•		

# recessed control gear

	article no.	wall	pend	ceiling	in	mono
tronic 60	12-90108					•
tronic 75	12-90101					•
tronic 105	12-90115	•	•	•	•	
tronic 225	12-90159	•	•	•	•	
RK 300	12-90165	•	•	•	•	
MW 150	12-90143	•	•	•	•	
MW 264	12-90114	•	•	•	•	

#### Note on the control gear:

The lighting industry has rapidly changed in recent years. It switched from halogen to LED lamp technology. The **LightLight system** was originally developed for the use of halogen lamps. Today, LED retrofit lamps are used instead. As it has turned out, these cannot be dimmed properly with some control gear-dimmer combinations. The variety of possible combinations makes it impossible to make a reliable statement about the dimmability of a system. Noise can occur, the retrofit lamps flicker intermittently or they can only be dimmed down to a limited extent.

max permitted	non - dimmable lighting system max. luminaires / Soraa® VIVID LED				
system length	7,5 W	9 W	12,5 W	18,5 W	
2 m	1-6	1-5	1 - 4	1-3	
2 m	3-11	3-8	2-8	1-6	
15 m	1 - 35	1-30	1-17	1-11	
15 m	1 - 16	1-13	1-9	1-6	
15 m	1-23	1 - 19	1-14	1-10	
2 m	1-6	1-5	1 - 4	1-3	
2 m	3-11	3-8	2-8	1-6	
15 m	1 - 35	1-30	1-17	1-11	
15 m	1-16	1-13	1-9	1-6	
15 m	1-23	1-19	1-14	1 - 10	

max permitted system length	non - dimmable lighting system max. luminaires / Soraa® VIVID LED 7,5 W 9 W 12,5 W 18,5 W					
2 m	1-5	1-3	1-2	1-2		
2 m	1 - 7	1-4	1-3	1-2		
2 m	1-6	1-5	1-4	1-3		
2 m	3-11	3-8	2-8	1-6		
15 m	1 - 35	1-30	1 - 17	1-11		
15 m	1 - 16	1-13	1-9	1-6		
15 m	1 - 23	1 - 19	1 - 14	1 - 10		

For this reason, we recommend using the LightLight system exclusively without dimming.

For dimmable and controllable lighting concepts, use our 48 V Sense System, in which the control and operating devices are matched to each other for flawless operation of the LED lamps.





#### box wall 105

switching power supply system: wall

- PRI: 230 V | SEC: 11,5 V | AC-AC | 0 105 W
- switching power supply incorporated into a design housing
- with integral short circuit, overheating and overload protection, and soft start
- 2 end caps
- adapter feed included
- for system lengths of up to 2 m
- 0,3 kg

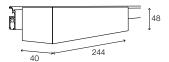


not dimmable

article no.







#### box wall 225

switching power supply system: wall

- PRI: 230 V | SEC: 11,5 V | AC-AC | 50 225 W
- switching power supply incorporated into a design housing with integral short circuit, overheating and overload protection, and soft start
- 2 end caps
- adapter feed included
- for system lengths of up to 2 m
- 0,3 kg



not dimmable

article no.







magnetic power supply unit system: wall

- PRI 230-240 V | SEC 11,5 V | AC-AC | 300 W
- safety transformer incorporated into a design housing
- with primary supply line transparent silver 0,5 m
- 2 end caps
- adapter feed included
- for system lengths of up to 15  $\mbox{m}$
- 4,5 kg



145

not dimmable

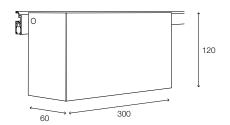
article no.

12-90740 a 12-90740 w 12-90740 b

С

80

145



#### bigbox wall 150

switching power supply system: wall

- PRI: 90-305 V AC or 127-431 V DC | SEC: 12 V DC | 150 W
- switching power supply incorporated into a design housing
- with integral short circuit, overheating and overload protection, and soft start
- with primary supply line transparent silver 0,5  $\mbox{m}$
- 2 end caps
- adapter feed included
- for system lengths of up to 15 m
- 3-core cable
- 2,2 kg

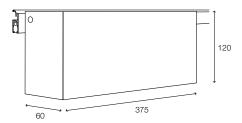
not dimmable

article no.

12-90626 a

12-90626 b

12-90626 w



#### bigbox wall 264

switching power supply system: wall

- PRI: 90-305 V AC or 127-431 V DC | SEC: 12 V DC | 264 W
- switching power supply incorporated into a design housing
- with integral short circuit, overheating and overload protection, and soft start
- with primary supply line transparent silver 0,5 m
- 2 end caps
- adapter feed included
- for system lengths of up to 15  $\mbox{m}$
- 3-core cable
- 3 kg

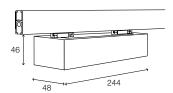
not dimmable

article no.

12-90627 a

12-90627 w

12-90627 b



#### box pend/ceiling 105

switching power supply system: pend, ceiling

- PRI: 230 V | SEC: 11,5 V | AC-AC | 0 105 W
- switching power supply incorporated into a design housing with integral short circuit, overheating and overload protection, and soft start
- with primary supply line transparent silver 0,5 m
- 2 end caps
- adapter feed included
- for system lengths of up to 2  $\mbox{m}$
- 0,3 kg

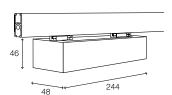


not dimmable

article no.

12-90620 a

12-90620 w 12-90620 b



#### box pend/ceiling 225

switching power supply system: pend, ceiling

- PRI: 230 V | SEC: 11,5 V | AC-AC | 50 225 W
- switching power supply incorporated into a design housing
- with integral short circuit, overheating and overload protection, and soft start
- with primary supply line transparent silver 0,5 m
- 2 end caps
- adapter feed included
- for system lengths of up to 2 m
- 0,3 kg



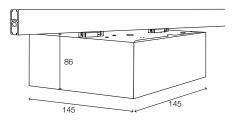
not dimmable

article no.

12-90635 a

12-90635 w

12-90635 b



#### box pend/ceiling 300

magnetic power supply unit system: pend, ceiling

- PRI 230-240 V | SEC 11,5 V | AC-AC | 300 W
- safety transformer incorporated into a design housing
- with primary supply line transparent silver 0,5 m
- 2 end caps
- track-mounted: incl. adapter feed
- ceiling-mounted: with terminal
- power feed is not incl. - for system lengths of up to 15 m
- 4,5 kg



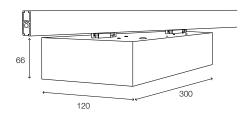
not dimmable

article no.

12-90725 w

12-90725 a

12-90725 b



#### box pend/ceiling 150

switching power supply system: pend, ceiling

- PRI: 90-305 V AC or 127-431 V DC | SEC: 12 V DC | 150 W
- switching power supply incorporated into a design housing
- with integral short circuit, overheating and overload protection, and soft start
- with primary supply line transparent silver 0,5  $\mbox{m}$
- adapter feed included
- 2 end caps
- for system lengths of up to 15 m
- 3-core cable
- 2,2 kg

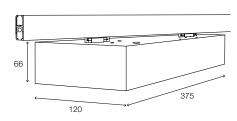
not dimmable

article no.

12-90636 a

12-90636 w

12-90636 b



#### box pend/ceiling 264

switching power supply system: pend, ceiling

- PRI: 90-305 V AC or 127-431 V DC | SEC: 12 V DC | 264 W
- switching power supply incorporated into a design housing with integral short circuit, overheating and overload protection, and soft start
- with primary supply line transparent silver 0,5 m
- adapter feed included
- for system lengths of up to 15  $\mbox{m}$
- 3-core cable
- 3 kg

article no.

12-90637 a

12-90637 w

12-90637 b

not dimmable



#### tronic 60

switching power supply system: mono

- PRI: 230 V | SEC: 11,5 V | AC-AC | 0 60 W
- with integral short circuit, overheating and overload protection, and soft start
- max. distance to MONO light 2 m
- for recessed mounting in hollow-section walls or ceilings
- LBH 77 x 36 x 25 mm
- 0,10 kg

article no. 12-90108

article no.

12-90101



not dimmable



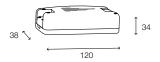
#### tronic 75

switching power supply system: mono

- PRI: 230 V | SEC: 11,5 V | AC-AC | 20 75 W
- with integral short circuit, overheating and overload protection, and soft start
- maximum distance between mono recessed luminaires: 2 m
- can be accommodated in mono installation housing
- not for ALULINE LED or FILAMENT LED
- LBH 70 x 33 x 21 mm; 0,11 kg



not dimmable



### tronic 105

switching power supply system: wall, pend, ceiling, in

- PRI: 230 V | SEC: 11,5 V | AC-AC | 0 105 W
- with integral short circuit, overheating and overload protection, and soft start
- for secondary track lengths up to 2 m
- LBH 120 x 38 x 34 mm
- 0,14 kg

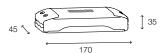
article no.

12-90115

article no.



not dimmable



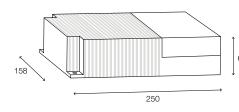
#### tronic 225

switching power supply system: wall, pend, ceiling, in

- PRI 230 V | SEC 11,8 V | AC-AC | 50-225 W
- with integral short circuit, overheating and overload protection, and soft start  $% \left( 1\right) =\left( 1\right) \left( 1\right$
- for secondary track lengths up to 2 m
- LBH 170 x 45 x 35 mm
- 12-90159 - 0,23 kg



not dimmable



#### **RK 300**

magnetic safety transformer system: wall, pend, ceiling, in

- PRI 230-240 V | SEC 11,5 V | AC-AC | 300 W
- for secondary track lengths up to 15 m
- LBH 250 x 158 x 60 mm

- 4,3 kg

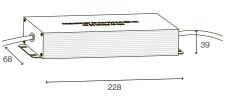
article no. 12-90165

article no.

12-90143



not dimmable



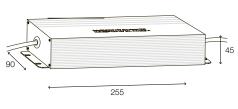
#### MW 150

switching power supply system: wall, pend, ceiling, in, rondo

- PRI: 90-305 V AC or 127-431 V DC | SEC: 12 V DC | 150 W
- with integral short circuit, overheating and overload protection, and soft start
- for secondary track lengths up to 15 m
- LBH 228 x 68 x 39 mm
- 3-core cable
- 1,15 kg



not dimmable



#### MW 264

switching power supply system: wall, pend, ceiling, in,

- PRI: 90-305 V AC or 127-431 V DC | SEC: 12 V DC | 264 W
- with integral short circuit, overheating and overload protection, and soft start
- for secondary track lengths up to 15 m
- LBH 255 x 90 x 45 mm - 3-core cable
- 3-core cab - 1,9 kg

\*

not dimmable



article no.

12-90114



article no.

#### stranded cable

silver transparent, highly flexible incl.

4 cable end sleeves

 $2 \ x \ 6 \ mm^2$ , running metre 90500 2 x 4 mm<sup>2</sup>, running metre 90520  $2 \times 2,5 \ mm^2$ , running metre 90525



#### recessed canopy for power feed by cable

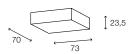
for LV cable connection or HV mains connection, cover plate 100 x 100 depth 50 diameter 74





#### surface-mounted canopy for power feed by cable

for LV cable connection or HV mains connection, 70 x 73 x 24





93537 93538

93500

# Individual

## individual lighting planning

Architecture and spatial layouts can be extremely complex, and lighting requirements therefore often of an exceptional nature. Buschfeld lighting systems are highly flexible. Designed as modular systems, they lend themselves to the creation of appropriate, project-related solutions.

The track systems can be applied across the corners of a space, even combined vertically and horizontally. It is also possible to combine different systems, for example In and Pend, or Pend and Wall.

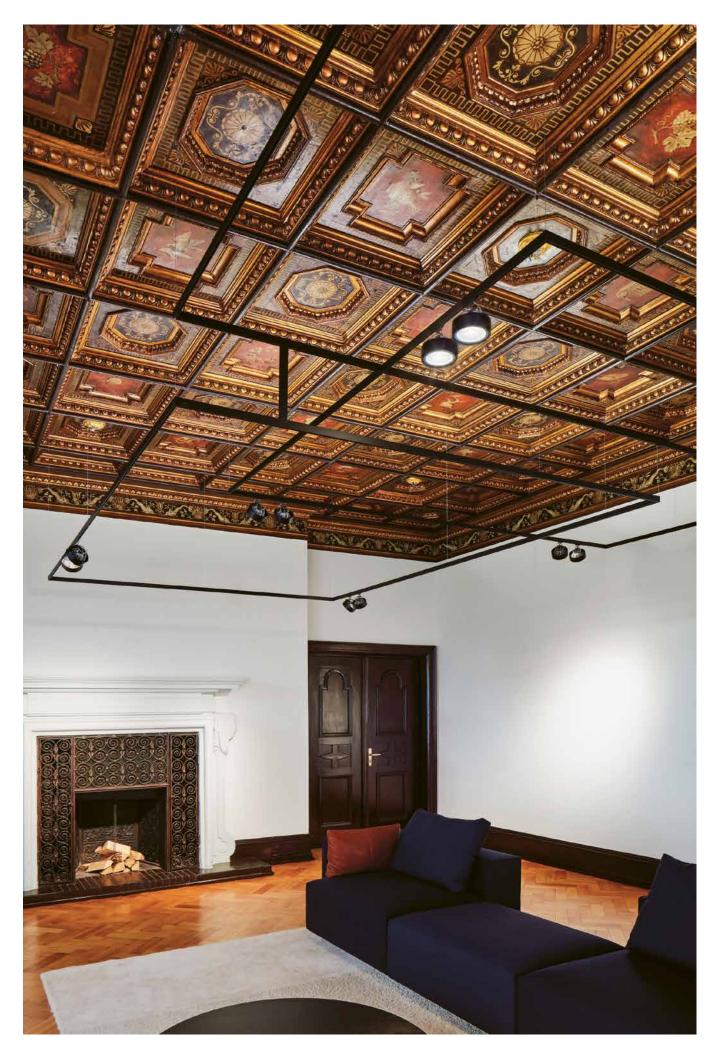
## Support and assistance

Our LightLight systems provide you with far more combination options with regard to application, dimensions, colour and finishes than we can show you here.

We are happy to support you with your design ideas and planning. Just give us a call or send us an e-mail:

Tel.: +49 221 93764-0 info@buschfeld.de

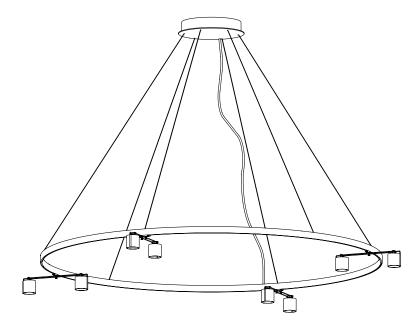
LightLight Pend with Led Strip Modul, luminaire Max Villa in Köln Marienburg



# rondo - ring-shaped luminaire

You want to design your own chandelier – LightLight Rondo is exactly the right modular low-voltage ring-shaped system you are looking for. LightLight Rondo is custom-made to suit your project, and based on our Pend and Ceiling systems. The individual rings of a given chandelier can be suspended on the same or vertically on different levels, or mounted directly onto the ceiling. Or the chandelier can be suspended from a central ceiling rose or canopy, if desired. LightLight rondo is designed to take any of the luminaires in the Pend or Ceiling range.

The Led Line uplighter module can also be applied in LightLight Rondo.

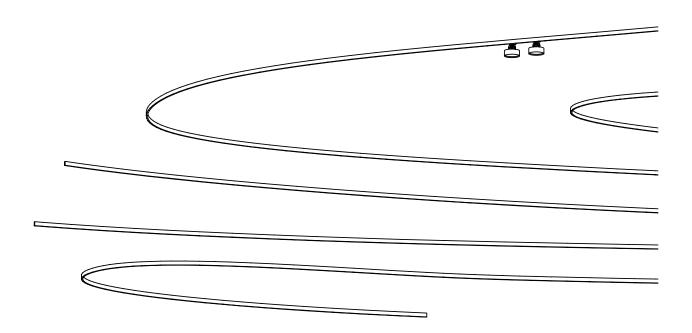


rondo for ceiling or pend

### freeforms - custom shapes

It could not be easier to adapt a LightLight solution to a particular spatial environment: free forms can be constructed from individual arch-shaped elements of different radii (500 mm minimum) and straight sections of track. The tracks can be curved upright or flat. Both pendant and ceiling-mounted versions are possible.

For the production of free-form shapes, we require a 1:1 plotted diagram. In this case too, the LightLight system is designed to take any of the luminaires in the Pend or Ceiling range.



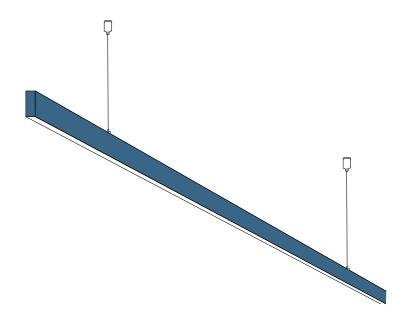
freeform for ceiling or pend

### colour - custom colours

All LightLight track and shades can be supplied in custom colours to RAL standards.

This enables further design highlights within the interior space: by applying LightLight in bold colours you can focus attention on the lighting concept - whereas subtle colours render LightLight practically invisible.

Custom anodised colours or gold leaf finishes can also be realised on request!







LightLight track and shades are available in all RAL colours.

# lightlight® project document

buschfeld Tel +49 221 93764-0 Fax -79 info@buschfeld.de www.buschfeld.de

contact						
company: country: contact person/planne	project name:  details (e.g. room, space			g. room, space):		
system						
Wall	Pend	Ceiling Standard	Ceiling Mini	Ceiling Flat clip	Pend Flat clip	◯ In
colour						
alumatt	○ wl	nite	black	bronz	ze	custom colour
control gea		ition of po				
recessed power so	upply units (name լ	power feed position	)			
luminaires						
name of product			shade qu	uantity		
				pcs		
				pcs		

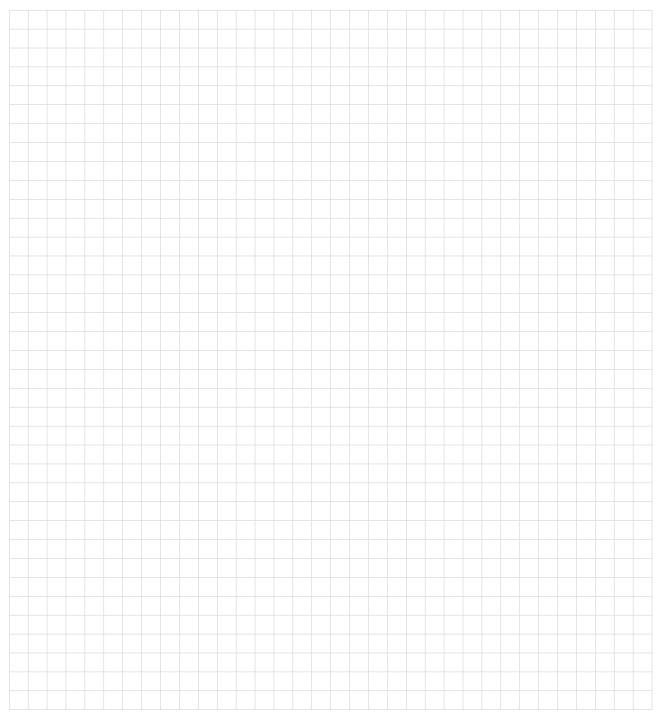
pcs



### LED light sources

name of product	neadcode	quantity	kelvin	wattage	beam angle
		pcs	K	W	0
		pcs	K	W	0
		pcs	K	W	0

### sketch



Draw a sketch of the track layout, indicating measurements and dimensions.

### Terms and conditions of business

General Terms and conditions of Buschfeld Design GmbH Terms of sale and delivery relating to Buschfeld Design GmbH, Cologne (hereinafter: Manufacturer) - as of 1st January, 2021.

#### I. General information

- 1. The general terms and conditions of business listed below (hereinafter Terms) apply exclusively. Other terms are only considered to be an integral part of the contract when the Manufacturer has expressly agreed to their validity in writing. In the course of transactions, the version of the terms and conditions of business prevailing on conclusion of the respective contract provide the basis for all future business.
- 2. All agreements made between the parties to the contract must be put down in writing. Purchase orders will only be dealt with when confirmed in writing. This also applies for purchase orders arranged through sales representatives and sales personnel. Confirmed orders deviating from originally agreed orders shall be treated as new offers. Any additions, amendments and sub-agreements made to orders already placed, or any agreements of promises of delivery made by the Manufacturer, only come into effect when confirmed in writing by the Manufacturer.

#### II. Offers and the documents inherent to offers

- Offers are subject to change without notice, unless otherwise agreed.
   Documents and data inherent to an offer, such as illustrations, drawings, weights and dimensions, are only approximately authoritative, unless expressly quoted as binding. Technical descriptions, explanations and specifications, as well as textual information describing how products work, do not constitute any legal warranties. Specific properties and qualities are only guaranteed when expressly confirmed in writing by the Manufacturer.
- 3. Deviations may occur in descriptive material and data provided in brochures, catalogues and other documents. Amendments may be made to the above as a result of technical progress. Such deviations or amendments do not afford anyone the right to hold claims against the Manufacturer.
- 4. The offer and any related documents may not be forwarded, published or copied, or used for any other than the agreed purpose without the permission of the supplier.

  5. The Manufacturer may request all paperwork and documents related to an
- offer to be returned to sender.

#### III. Scale of the delivery - written confirmation

- The confirmation of order contains the details of the scale of the delivery.
   The Manufacturer is entitled to send partial shipments to the customer, and invoice for those partial shipments accordingly.
- 3. Samples shall only be shipped when expressly agreed with the Manufacturer. Such shipments shall also be invoiced.

#### IV. Prices

- 1. Unless otherwise agreed and recorded in the confirmation of order, all prices are quoted for shipment from the storage in Cologne, excluding postage
- 2. These prices are based on the manufacturing costs at conclusion of contract. In the case of long-term delivery arrangements, the Manufacturer is, however, entitled to request or demand prices be adjusted, should one or more of the following occur:
- costs for materials required for manufacture increase
   labour costs or incidental labour costs increase due to legal or pay scale
- there is an increase in value added tax (VAT).

Should no agreement be reached within the framework of negotiations on amendments to contractually agreed prices, each of the parties to the contract is entitled to terminate the contract within three months to the end of a quarter. Termination of contract must be made in writing.

- V. Payment

  1. Unless otherwise agreed, payments shall be made without any deductions and free of transaction charges to the Manufacturer's designated account(s). Terms are as follows: 2 % cash discount within 14 days after date of invoice
- or net invoice amount within 30 days.

  2. Invoices for repairs, mounting/installing, custom-made products, tools, development costs and models shall be paid immediately without any deductions. First-time deliveries are only affected against advance payment.
- 3. In the case of overdue payments, customary interest shall be calculated at 9 % (final customers 5 %) above the basic interest rate quoted by the Deutsche Bundesbank; the Manufacturer reserves the right to make further claims.
- 4. Bills of exchange and cheques are only accepted for payment under specifically agreed conditions. Should a bill of exchange be accepted, discount charges are calculated to the amount of 4 % above the respective main refinancing rate as quoted by the ECB. Payment effected by means of bills of exchange or cheques is only considered settled when the invoiced amount has been credited to our account.
- 5. The Purchasing Party is only granted the right to set-off costs if there are legally recognized reasons for counterclaims or are undisputed; right to refuse performance may only be asserted under the condition that any justified counterclaims are based on the same, contractual relationship.

#### VI. Delivery times

- The delivery times quoted by the Manufacturer are not binding and require all technical issues to be clarified in advance - unless otherwise agreed in writing. An agreed delivery time commences once the confirmation of order has been sent, but not before the Purchasing Party has fulfilled all obligations. This applies in particular in the case of agreed advance payments.
- 2. The delivery time is regarded as being adhered to when the article of sale

has left the Manufacturer's plant before the delivery time has elapsed.

- 3. The delivery time may be extended due to unforeseen circumstances, irrespective of whether these occur in the Manufacturer's plant or through one of his suppliers, e.g. the unforeseen disruption of operations, lawfully recognized strikes, lock-outs, the non-punctual delivery of specific parts despite a due und timely order, as well as any other occurrences which are outside the control of the Manufacturer. The Manufacturer is obliged to inform the Purchasing Party in writing of the onset and conclusion of any such occurrences at his earliest possible convenience.
- 4. Should the Manufacturer establish that he cannot affect punctual delivery and the Purchasing Party can prove that this has given rise to damages, the Manufacturer is liable to pay compensation: for every completed week of non-delivery, this amounts to 0.5 %, but no more than 15 % max. of the value of that part of the goods to be delivered which, as a result of the delay in delivery, cannot be used opportunely. The same applies if the Purchasing Party can prove he has lost custom, or business is to be settled within a given time period in accordance with § 376 of the German Civil Code, and this is not possible because of the delay. In any case, the liability for damages is limited to the kind of foreseeable, typical damages that may occur.

The Purchasing Party is only entitled to further claims should the delay be due to wilful intent or gross negligence.

5. Should the Purchasing Party set the Manufacturer an equitable period of grace while threatening to otherwise refuse acceptance of delivery, after the latter has failed to deliver on time, the Purchasing Party is entitled to withdraw from the contract should the period of grace elapse for reasons that can be proven to be the fault of the Manufacturer. The Purchasing Party is only entitled to claim for damages for the Manufacturer's failure to perform within the scope of the kind of foreseeable, typical damages that may occur in the case of not wilful intent or gross negligence.

- VII. Transfer of risk acceptance of delivery

  1. The services performed by the Manufacturer shall be considered received by the Purchasing Party on completion of the delivery of the ordered goods. This also applies in the case of partial performance.
- On acceptance of the delivery, the risk is transferred to the Purchasing Party. Should the Purchasing Party be in default concerning the acceptance of the delivery, the risk is transferred to him at the point when the default occurs. The same applies when provision of services is interrupted at the fault of the Purchasing Party and the Manufacturer has entrusted the Purchasing
- Party with the services / delivery performed to date by mutual agreement.

  3. Shipment is effected at the risk of the Purchasing Party, even under freight paid conditions. The Manufacturer is only liable for damage during delivery, if shipment is expressly effected at the Manufacturer's risk. Goods can only be insured against breakage at the request and at the cost of the Purchasing Party. A possible credit note covering the damage can only be issued if the Manufacturer has confirmation of coverage from the insurance company. The Manufacturer is not expected to assume any other obligations. Unless expressly agreed otherwise, shipments are not insured.
- 4. The goods delivered by the Manufacturer shall also be accepted by the purchasing partner in the case of minor defects.
- 5. Should the Purchasing Party be found responsible for default of acceptance, or should he not fulfil his obligation to cooperate, he is obliged, as of two weeks after notice of the Manufacturer's readiness for shipment, to cover any costs incurred by the Manufacturer for the storage of goods ready for dispatch to the amount of 0.5 % of the invoice amount for every month, unless he can prove to the Manufacturer that the damage did not occur at all or was significantly lower than the flat rate.

The Manufacturer reserves the right to make other claims, especially those resulting from §§ 373ff of a bilateral commercial transactions in the German Commercial Code. If the Purchasing Party fails to take action within a reasonable time, the Manufacturer is entitled to stage a self-help sale.

- VIII. Reservation of property rights
  1. All items to be delivered remain the property of the Manufacturer (contractor) until the invoice for products/services provided has been settled by the Purchasing Party.
- 2. Pursuant to section 4, for the duration of the reservation of property rights the Purchasing Party is not entitled to liquidate, give away, pawn or transfer the delivered goods to secure a debt.
- 3. In the case of seizure or attachment by third parties of the goods in reserve, the Manufacturer must be informed immediately in writing so that he can take legal action as per § 771 in the Code of Civil Procedure. Should the third party not be in a position to reimburse the costs incurred in and out of court related to legal action as per § 771 in the Code of Civil Procedure, the Purchasing Party shall be liable for the resulting damages.
- 4. Should the purpose of the delivery be the re-sale of the goods from a company or point of sale operated by the Purchasing Party, the Purchasing Party is obligated to reserve property rights vis-à-vis customers when re-selling. The rights and claims related to this reservation of property are hereby ceded by the Purchasing Party to the Manufacturer who accepts them, irrespective of whether the delivery item(s) have been resold with or without possible further processing.
- 5. In the case of delayed payment of the Purchasing Party, the Manufacturer is entitled to take back all delivered items. The acceptance of returned goods does not signify withdrawal from contract, unless this has been explicitly clarified in writing. After seizure, the purchased items are at the disposal of the Manufacturer to utilize, sell or exploit as desired. Proceeds can be offset against accounts payable by the Purchasing Party - after deduction of costs incurred in the exploitation process.
- 6. The Purchasing Party is obligated to take care when handling the purchased items. In particular, he is obligated to insure them adequately at replacement value against damage from fire and water, and against theft. Should

maintenance and inspection work be necessary, the Purchasing Party is required to have this performed in good time at his own expense.

- 7. Should the purchased items be processed together with other items not belonging to the Manufacturer before full payment has been affected, the Manufacturer shall acquire joint ownership of the new item(s) in relation to the value of the purchased item(s) (final invoice amount, incl. VAT) to the other item(s) that have been processed at the point in time when processing is undertaken. The same applies for the goods/items resulting from processing as for the purchased item(s) delivered under reserve.
- 8. Should the purchased item(s) be inseparably mixed with other items not belonging to the Manufacturer before full payment has been effected, the Manufacturer shall acquire joint ownership of the new item(s) in relation to the value of the purchased item(s) (final invoice amount, incl. VAT) to the additional items at the point in time when all the items are put inseparably together. 9. The Purchasing Party shall also assign any claims to secure accounts receivable by the Manufacturer, which are created against a third party by the
- combination of the purchased goods with real estate.

  10. When required by the Purchasing Party, the Manufacturer is obligated to release the collaterals to the extent by which the realisable value of the collateral exceeds the receivables by more than 10 %; it rests with the Manufacturer to decide which collaterals are to be released.

#### IX. Liability

- 1. Claims relating to apparent defects are not recognized after delivery and acceptance of the goods.
- 2. The Purchasing Party is obligated to examine the accepted item(s) immediately for possible defects and, if a defect is found, to notify the manufacturer in written form without delay. If the customer fails to notify the Manufacturer, the goods are deemed to have been approved, unless there is a defect that could not be identified during the examination.
- If such a defect appears later, the written notification must be made immediately after the discovery, otherwise the goods are considered to be approved even with regard to this defect.
- 3. Defects shall be communicated to the Manufacturer immediately in written form, whereby the Manufacturer is obligated to rectify the defect or replace the defect items or parts. The Manufacturer reserves the right to reduce the price if the repair fails or to withdraw from the contract at his choice.
- 4. If the goods are delivered to a place or town other than the place of business of the Manufacturer, the Purchasing Party shall bear all costs related to
- rectifying the defect or replacement of the defect items or parts.

  5. Marginal deviations in dimensions and designs, especially in the case of repeat orders or subsequent requests for modification on the part of the Purchasing Party, which do not affect the usability of the products, shall be considered to be pursuant to the contract.
- 6. Any other claims for damages, contractual penalties or loss of profit shall remain unrecognized, unless they can be proven to be based on the deliberate or grossly negligent breach of contract on the part of the contractor or any one of his assistants or agents.
- 7. The above-mentioned liability limitations apply in the case of infringement of pre-contractual, contractual and post-contractual obligations, i.e. primary and secondary obligations, unless they conflict with any compulsory statutory
- 8. All claims against the Manufacturer, on whatever legal grounds, become invalid after a period of six months, unless they conflict with compulsory statutory provisions. Section 11 remains unaffected.
- 9. The Manufacturer is not liable for material damage to shipments procured from third parties and forwarded to the Purchasing Party unchanged. He is entitled to withdraw from the contract insofar as he has not received the delivery item(s) in spite of having previously concluded a general purchasing agreement; liability in the case of a deliberate or grossly negligent breach of contract remains unaffected. The Manufacturer shall inform the Purchasing Party immediately about non-punctual delivery of items and, should he wish to withdraw from the contract. Any consideration received shall be refunded forthwith.
- 10. No responsibility is accepted for damage resulting from inappropriate or improper application, faulty or defective installation or operation on the part of the Purchasing Party, or third parties working for or in the installation of the Purchasing Party or third parties, or resulting from normal wear and tear, defective or careless treatment, inappropriate operating resources, substitute materials, defective construction work, inappropriate support medium, or the effect of chemical, electrochemical or electrical substances or equipment, unless they can be proven to be the result of deliberate or gross negligent actions on the part of the Manufacturer. In the case of electric equipment: the regulations laid down by the association of German electrical engineers
- 11. For new products supplied by the Manufacturer a statutory warranty period of two years applies. The warranty begins on the date the products are dispatched ex works in Cologne.
- 12. In the case of the data provided on the average lifespan of light sources, these are mean values. There is no guarantee that a light source will achieve at least this lifespan.

#### X. Rights of use, rights of third parties

- 1. On placing an order the Purchasing Party ensures that he personally, or his client, has the right of use for all image files and graphic material, and in particular photos, provided to the Manufacturer for processing or editing. The Purchasing Party is responsible for ensuring that authorising the Manufacturer to process the image files and graphic material provided complies with the applicable laws, in particular the laws governing copyright and trademarks, and does not infringe upon the rights of third parties.
- 2. The Purchasing Party shall indemnify the Manufacturer against all claims of third parties, which are filed against the Manufacturer due to the infringe-

ment of their rights in relation to the image files and graphic material used, in particular due to the infringement of copyright or trademark rights. The Purchasing Party also undertakes to pay the Manufacturer for any damages

- 3. In individual cases the Manufacturer reserves the right to subsequently refuse to accept orders which do not comply with legal stipulations or contradict accepted moral principles or standards.

 Copyright and prohibition on exploitation
 Contents and images contained on the Manufacturer's homepage are subject to German copyright law. Duplication, processing, distribution and any other form of utilisation requires the prior written consent of the Manufacturer. Downloads and copies of this homepage are not permitted. This applies in particular to all photos on the Manufacturer's homepage. To the best of the Manufacturer's knowledge, the rights of third parties were respected when creating the homepage. Should the Manufacturer be notified of any infringements in relation to the latter, the relevant contents will be removed from the Manufacturer's homepage immediately.

#### XI. Other liabilities

- 1. The warranty disclaimers listed in section VIII also apply for all other claims made by the Purchasing Party against the Manufacturer - irrespective of legal
- 2. In all points listed above where the Manufacturer bears no. or limited, liability, this also applies in the case of claims lodged by the Purchasing Party against our staff / support staff / employees / agents / representatives XII. Place of Jurisdiction
- The place of fulfilment for all obligations resulting from the contractual relationship is the business location of the contractor. Should a different place of fulfilment be agreed, the Purchasing Party is liable to cover all costs.
- 2. The contents of the contract and the relationship between the parties to the contract are exclusively subject to Federal German law. The application of the uniform law relating to the international purchase of moveable objects, as well as the law relating to the conclusion of international contracts of sale of moveable objects does not apply

#### XIII. Assignment

All claims lodged against the Manufacturer are not transferrable without the written consent of the Manufacturer and may be exercised by the Purchasing

#### XIV. Severability clause

If any clause or part of this agreement shall for any reason be adjudged by a court of competent jurisdiction to be invalid, such judgement shall be limited and confined in its operation to the clause involved in the controversy.

### buschfeld

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