



# Accessories

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## General information

When selecting lamps, the button/lens colour of the device should be taken into account.

transparent colours	Suitable for		
	Filament lamps	Neon lamps	LED
colourless	limited	good	good
red	good	good	good
yellow	good	good	good
green	good	limited	limited
blue	limited	limited	good

**transparent** = clear, grooved on inside for better light diffusion

**translucent** = translucent but not clear

Operating life specifications of lamps refer to AC operation. For DC operation, these values are reduced by approximately 40%. (Operating life specifications: when not mounted).

Neon lamps: rated current tolerance +/- 30%

We recommend to combine coloured lenses with the corresponding LED colours in order to achieve a really intensive colour.

On the other hand, when combining e. g. a white LED with a coloured lens, this will produce a dim colour.

### LED Protective Diode

LED may be damaged when anode and cathode are connected in a wrong way. An integrated protective diode protects the LED against wrong polarization.

## CE-Conformity

Illumination like lamps and LED displays are exchangeable, overall available as merchandise and not steadily connected with the network – thus, the Low-voltage Directive 73/23/EWG does not apply.

### EMC

The components of this catalogue are within the meaning of the law concerning the electromagnetic conformity (= EMC) "basic components as f. ex. switches, signal lamps or like" and, therefore, do not all within the scope of the EMC.

### Declarations of Conformity

Declarations of conformity for lamps are not available.



## General Data

Luminous elements

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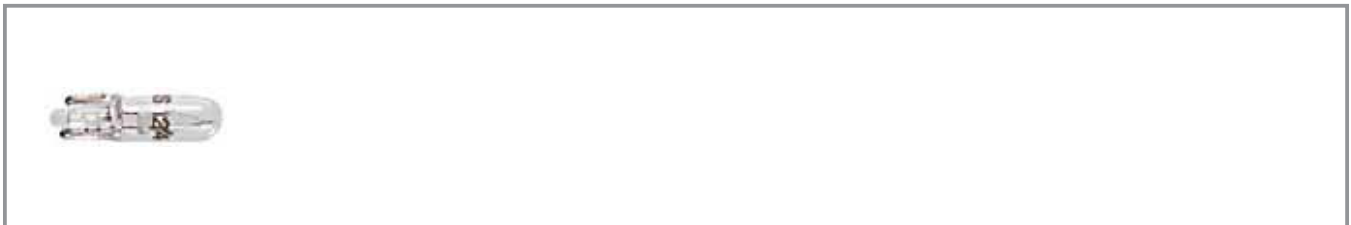
**Filament/neon lamp**



**Typical accessories Filament/neon lamp**

Description	Photo	Order no.	Additional accessories see page
Lamp extractor for lamp diameter 11 mm		<b>1.90.900.007/0000</b>	5 - 20

**Filament lamps, wedge base W 2 x 4.6d DIN 49846**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
12 V	0.08 A	1.2 W	5 mm	20 mm	15000 h	<b>1.90.120.012/0000</b>	<b>1.90.900.003/0000</b>
24 - 30 V	0.04 A	1 W	5 mm	20 mm	1000 h	<b>1.90.120.005/0000</b>	<b>1.90.900.003/0000</b>
24 V	0.04 A	1.2 W	5 mm	20 mm	7000 h	<b>1.90.120.011/0000</b>	<b>1.90.900.003/0000</b>
48 V	0.025 A	1.2 W	5 mm	19 mm	2500 h	<b>1.90.120.010/0000</b>	<b>1.90.900.003/0000</b>
60 V	0.02 A	1.2 W	5 mm	19 mm	3300 h	<b>1.90.120.009/0000</b>	<b>1.90.900.003/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.  
The lamps up to 30 V are provided with glass sockets, the other ones with plastic sockets.

**Filament lamps, Bi-Pin T 1 base**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 - 28 V	0.016 A	0.4 - 0.56 W	-	-	5000 h	<b>1.90.180.473/0000</b>	<b>1.90.900.001/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps, Bi-Pin T 1/4 base**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
12 V	0.06 A	0.72 W	4.3 mm	10.5 mm	10000 h	<b>1.90.180.474/0000</b>	<b>1.90.900.002/0000</b>
28 V	0.03 A	0.84 W	4.3 mm	10.5 mm	5000 h	<b>1.90.180.475/0000</b>	<b>1.90.900.002/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps T 4.5**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
12 V	0.04 A	0.48 W	4.2 mm	16.5 mm	10000 h	<b>1.90.100.022/0000</b>	<b>1.90.900.002/0000</b>
24 V	0.02 A	0.48 W	4.2 mm	16.5 mm	8000 h	<b>1.90.100.023/0000</b>	<b>1.90.900.002/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps T 4.6**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
12 V	0.04 A	0.3 W	4 mm	22 mm	5000 h	<b>1.90.100.012/0000</b>	<b>1.90.900.002/0000</b>
24 V	0.02 A	0.5 W	4 mm	22 mm	5000 h	<b>1.90.100.013/0000</b>	<b>1.90.900.002/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps, BA 9s base (MBC/MCC), shape G, DIN 72601**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
12 - 15 V	0.12 A	1.2 W	9 mm	24 mm	10000 h	<b>1.90.060.003/0000</b>	<b>1.90.900.006/0000</b>
24 - 30 V	0.04 A	1.2 W	9 mm	24 mm	7000 h	<b>1.90.060.014/0000</b>	<b>1.90.900.006/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps, BA 9s base (MBC/MCC), shape A, DIN 49851**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
12 - 15 V	0.166 A	2 W	11 mm	29 mm	10000 h	<b>1.90.060.132/0000</b>	<b>1.90.900.007/0000</b>
24 - 30 V	0.083 A	2 W	11 mm	29 mm	10000 h	<b>1.90.060.133/0000</b>	<b>1.90.900.007/0000</b>
110 - 130 V	0.018 A	2 W	11 mm	30 mm	25000 h	<b>1.90.060.137/0000</b>	<b>1.90.900.007/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Neon lamps, BA 9s base (MBC/MCC)**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
220 ACV	0.0015 - 0.0018 A	-	10 mm	24 mm	1500 h	<b>1.90.560.002/0000</b>	<b>1.90.900.007/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Neon lamps, BA 9s base (MBC/MCC), DIN 49850**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
AC 220 V	0.0015 - 0.0018 A	-	10 mm	28 mm	-	<b>1.90.560.102/0000</b>	<b>1.90.900.007/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps, BA 15d base, DIN 49850**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
12 - 15 V	0.12 A	2 W	15.2/12.5 mm	31 mm	1000 h	<b>1.90.070.003/0000</b>	<b>1.90.900.008/0000</b>
24 - 30 V	0.08 A	2 W	15.2/12.5 mm	31 mm	1000 h	<b>1.90.070.004/0000</b>	<b>1.90.900.008/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.



**Filament lamps, BA 15d base, DIN 49852**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 - 30 V	0.165 A	4 W	17 mm	57 mm	2000 h	<b>1.90.070.105/0000</b>	<b>1.90.900.009/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps, BA 15d base**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 V	0.2 A	5 W	16 mm	36 mm	2000 h	<b>1.90.070.053/0000</b>	<b>1.90.900.009/0000</b>
220 - 260 V	0,02 - 0,03 A	5 - 7 W	16 mm	36 mm	1000 h	1.90.070.061/0000	<b>1.90.900.009/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps, E 10 (MES) base**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 - 30 V	0.083 A	2 W	11 mm	29 mm	1000 h	<b>1.90.010.033/0000</b>	<b>1.90.900.007/0000</b>
110 - 130 V	0.018 A	2 W	11 mm	30 mm	1000 h	<b>1.90.010.037/0000</b>	<b>1.90.900.007/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

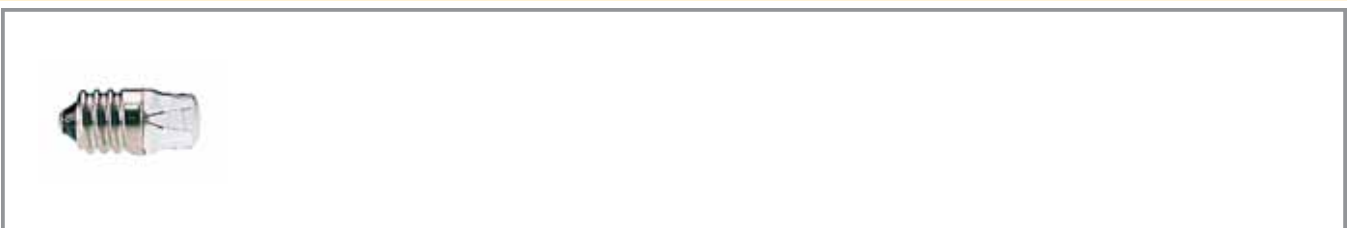
**Neon lamps, E 10 (MES) base**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
220 AC V	0.0015 - 0.0018 A	-	10.4 mm	28 mm	-	<b>1.90.510.012/0000</b>	<b>1.90.900.006/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

**Filament lamps, E 14 base, shape B, DIN 49850**



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 - 30 V	0.083 A	2 W	14/12.5 mm	31 mm	1000 h	<b>1.90.020.033/0000</b>	<b>1.90.900.008/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

### Filament lamps, E 14 base, shape A, DIN 49852



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 - 30 V	0.165 A	4 W	17 mm	57 mm	1000 h	<b>1.90.020.105/0000</b>	<b>1.90.900.009/0000</b>
220 - 260 V	0.023 A	5 W	17 mm	57 mm	1000 h	<b>1.90.020.115/0000</b>	<b>1.90.900.009/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

### Filament lamps, E 14 base



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 V	0.2 A	5 W	16 mm	36 mm	2000 h	<b>1.90.020.053/0000</b>	<b>1.90.900.009/0000</b>
220 - 260 V	0,02 - 0,03 A	5 - 7 W	16 mm	36 mm	1000 h	<b>1.90.020.061/0000</b>	<b>1.90.900.009/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

## Neon lamps, E 14 base, shape B



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
220 ACV	0.0014 - 0.0026 A	-	14.1/11.5 mm	31 mm	-	<b>1.90.520.002/0000</b>	<b>1.90.900.008/0000</b>

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

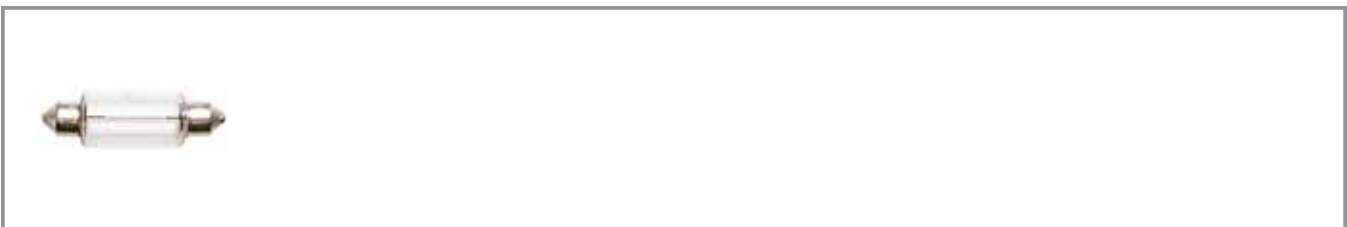
## Filament lamps, tubular lamp, S 8.5 base, shape L, DIN 72601



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 V	-	3 W	11.5 mm	39 mm	200 h	<b>1.90.111.003/0000</b>	-

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.

## Filament lamps, tubular lamp, S 8.5 base, shape K, DIN 72601



Rated voltage	Rated current	Rated power	Diameter max.	Length	Medium operating life AC	Order no.	Accessoires lamp extractor
24 V	-	5 W	15.5 mm	44 mm	200 h	<b>1.90.111.103/0000</b>	-

Ratings and operating life specifications generally refer to the lower rated voltage value. Operating life specifications of lamps refer to AC operation. With DC operation, these are reduced by about 40%.



**LED**



**LEDW 2 x 4.6d superbright**



Socket	Colour	Forward voltage typ. $U_F$ at $I_F$	Max. current, $I_F$	Light intensity	Order no.	Accessoires lamp extractor
W 2 x 4.6d	red	24	12 mA	70 mcd	<b>1.90.690.361/0000</b>	<b>1.90.900.003/0000</b>
W 2 x 4.6d	green	24	12 mA	600 mcd	<b>1.90.690.362/0000</b>	<b>1.90.900.003/0000</b>
W 2 x 4.6d	yellow	24	12 mA	80 mcd	<b>1.90.690.363/0000</b>	<b>1.90.900.003/0000</b>
W 2 x 4.6d	blue	24	12 mA	300 mcd	<b>1.90.690.364/0000</b>	<b>1.90.900.003/0000</b>
W 2 x 4.6d	white	24	12 mA	400 mcd	<b>1.90.690.365/0000</b>	<b>1.90.900.003/0000</b>

All LEDs are provided with a protective diode. Operating temperature - 30 °C ... + 65 °C.  
For more intensive colours, please combine coloured lenses with suitable LED colours.

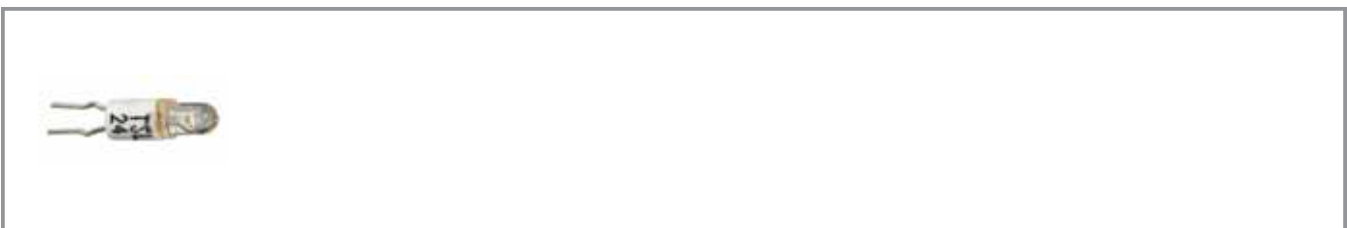
**LED Bi-Pin T 1**



Socket	Colour	Forward voltage typ. $U_F$ at $I_F$	Max. current, $I_F$	Light intensity	Order no.	Accessoires lamp extractor
Bi-Pin T 1	red	2	10 mA	26-52 mcd	<b>1.90.691.026/0000</b>	<b>1.90.900.001/0000</b>
Bi-Pin T 1	green	2	10 mA	9-33 mcd	<b>1.90.691.027/0000</b>	<b>1.90.900.001/0000</b>
Bi-Pin T 1	yellow	2	10 mA	26-52 mcd	<b>1.90.691.028/0000</b>	<b>1.90.900.001/0000</b>

Voltage  $U_B$ : External resistor:  $R_V = (U_B - U_F) : I_F$   
 A suitable series resistor must be fitted externally.  
 Recommended resistor ratings:  
 - for 5 - 7 V = 270  $\Omega$  0.25 W  
 - for 12 - 14 V = 680  $\Omega$  0.50 W  
 - for 24 - 28 V = 1500  $\Omega$  1.00 W  
 Forward voltage  $U_F$ : 2 V (3 V max.)  
 Reverse voltage  $U_R$ : 5 V  
 Reverse current  $I_R$ : 100  $\mu$ A.  
 Forward current: 10 mA  
 Operating temperature: -20°C ... +60°C  
 Storage temperature: -30°C ... +80°C  
 Operating life: 100,000 h at  $T_U = 25^\circ$ C)

**LED Bi-Pin T 1 superbright**



Socket	Colour	Forward voltage typ. $U_F$ at $I_F$	Max. current, $I_F$	Light intensity	Order no.	Accessoires lamp extractor
Bi-Pin T 1	red	24	11 mA	70 mcd	<b>1.90.690.351/0000</b>	<b>1.90.900.001/0000</b>
Bi-Pin T 1	green	24	11 mA	600 mcd	<b>1.90.690.352/0000</b>	<b>1.90.900.001/0000</b>
Bi-Pin T 1	yellow	24	11 mA	80 mcd	<b>1.90.690.353/0000</b>	<b>1.90.900.001/0000</b>
Bi-Pin T 1	blue	24	11 mA	300 mcd	<b>1.90.690.354/0000</b>	<b>1.90.900.001/0000</b>
Bi-Pin T 1	white	24	11 mA	400 mcd	<b>1.90.690.355/0000</b>	<b>1.90.900.001/0000</b>

All LEDs are provided with a protective diode. Operating temperature - 30 °C ... + 65 °C.  
 For more intensive colours, please combine coloured lenses with suitable LED colours.

## LEDT 4.5



Socket	Colour	Forward voltage typ. $U_F$ at $I_F$	Max. current, $I_F$	Light intensity	Order no.	Accessoires lamp extractor
T 4.5	red	2 - 3 V	10 mA	26-52 mcd	<b>1.90.692.001/0000</b>	-
T 4.5	green	2 - 3 V	10 mA	9-33 mcd	<b>1.90.692.002/0000</b>	-
T 4.5	yellow	2 - 3 V	10 mA	26-52 mcd	<b>1.90.692.003/0000</b>	-

Voltage  $U_B$ : External resistor:  $R_V = (U_B - U_F) : I_F$

A suitable series resistor must be fitted externally.

Recommended resistor ratings:

- for 5 - 7 V = 270  $\Omega$  0.25 W

- for 12 - 14 V = 680  $\Omega$  0.50 W

- for 24 - 28 V = 1500  $\Omega$  1.00 W

Forward voltage  $U_F$ : 2 V (3 V max.)

Reverse voltage  $U_R$ : 5 V

Reverse current  $I_R$ : 100  $\mu$ A.

Forward current: 10 mA

Operating temperature: -20°C ... +60°C

Storage temperature: -30°C ... +80°C

Operating life: 100,000 h at  $T_U = 25^\circ\text{C}$

## LEDT 4.5 superbright



Socket	Colour	Forward voltage typ. $U_F$ at $I_F$	Max. current, $I_F$	Light intensity	Order no.	Accessoires lamp extractor
T 4.5	red	24	13 mA	90 mcd	<b>1.90.690.331/0000</b>	<b>1.90.900.004/0000</b>
T 4.5	green	24	13 mA	700 mcd	<b>1.90.690.332/0000</b>	<b>1.90.900.004/0000</b>
T 4.5	yellow	24	13 mA	100 mcd	<b>1.90.690.333/0000</b>	<b>1.90.900.004/0000</b>
T 4.5	blue	24	13 mA	380 mcd	<b>1.90.690.334/0000</b>	<b>1.90.900.004/0000</b>
T 4.5	white	24	13 mA	500 mcd	<b>1.90.690.335/0000</b>	<b>1.90.900.004/0000</b>

All LEDs are provided with a protective diode. Operating temperature - 30 °C ... + 65 °C.  
For more intensive colours, please combine coloured lenses with suitable LED colours.



## LED BA 9s (MBC/MCC) superbright



Socket	Colour	Forward voltage typ. $U_F$ at $I_F$	Max. current, $I_F$	Light intensity	Order no.	Accessoires lamp extractor
BA 9 s	red	24	15 mA	250 mcd	<b>1.90.690.341/0000</b>	<b>1.90.900.007/0000</b>
BA 9 s	green	24	15 mA	1000 mcd	<b>1.90.690.342/0000</b>	<b>1.90.900.007/0000</b>
BA 9 s	yellow	24	15 mA	250 mcd	<b>1.90.690.343/0000</b>	<b>1.90.900.007/0000</b>
BA 9 s	blue	24	15 mA	450 mcd	<b>1.90.690.344/0000</b>	<b>1.90.900.007/0000</b>
BA 9 s	white	24	15 mA	600 mcd	<b>1.90.690.345/0000</b>	<b>1.90.900.007/0000</b>

All LEDs are provided with a protective diode. Operating temperature - 30 °C ... + 65 °C.  
For more intensive colours, please combine coloured lenses with suitable LED colours.

## LED 3 mm, without base



Socket	Colour	Forward voltage typ. $U_F$ at $I_F$	Max. current, $I_F$	Light intensity	Order no.	Accessoires lamp extractor
without socket	red	1,6V/1 mA	30 mA	-	1.90.690.228/0000	-
without socket	yellow	1,9V/20 mA	50 mA	-	<b>1.90.690.267/0000</b>	-
without socket	red	1,9V/20 mA	50 mA	-	<b>1.90.690.269/0000</b>	-
without socket	blue	3,6V/20 mA	30 mA	-	<b>1.90.690.282/0000</b>	-
without socket	green	3,5V/20 mA	30 mA	-	<b>1.90.690.285/0000</b>	-
without socket	white	3,6V/20 mA	30 mA	-	<b>1.90.690.295/0000</b>	-

Processing information for 1.90.690.267/0000 and 1.90.690.269/0000  
The qualifications for the higher soldering temperatures on lead free soldering processes are as follows:  
Temperature stability according J-STD 020 C for reflow soldering 245°C and for wave soldering 245°C/10s.





## General Data

Other accessories

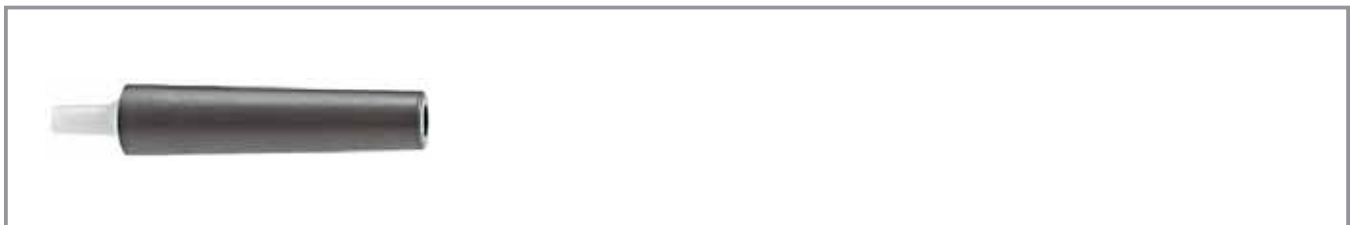
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**Accessories**



**Lamp extractor**



Short text	Feature 1	Feature 2	Order no.
Lamp extractor for lamp diameter 4 mm	lamp diameter 4 mm	-	<b>1.90.900.001/0000</b>
Lamp extractor for lamp diameter 4 mm	lamp diameter 4 mm	-	<b>1.90.900.002/0000</b>
Lamp extractor for lamp diameter 5 mm	lamp diameter 5 mm	-	<b>1.90.900.003/0000</b>
Lamp extractor for lamp diameter 5-6 mm	lamp diameter 5 - 6 mm	-	<b>1.90.900.004/0000</b>
Lamp extractor for lamp diameter 7 mm	lamp diameter 7mm	-	<b>1.90.900.005/0000</b>
Lamp extractor for lamp diameter 10.4 mm	lamp diameter 10.4 mm	-	<b>1.90.900.006/0000</b>
Lamp extractor for lamp diameter 11 mm	lamp diameter 11 mm	-	<b>1.90.900.007/0000</b>
Lamp extractor for lamp diameter 14 mm	lamp diameter 14 mm	-	<b>1.90.900.008/0000</b>
Lamp extractor for lamp diameter 16-17 mm	lamp diameter 16-17 mm	-	<b>1.90.900.009/0000</b>

5

Others

**Fixing spanner**



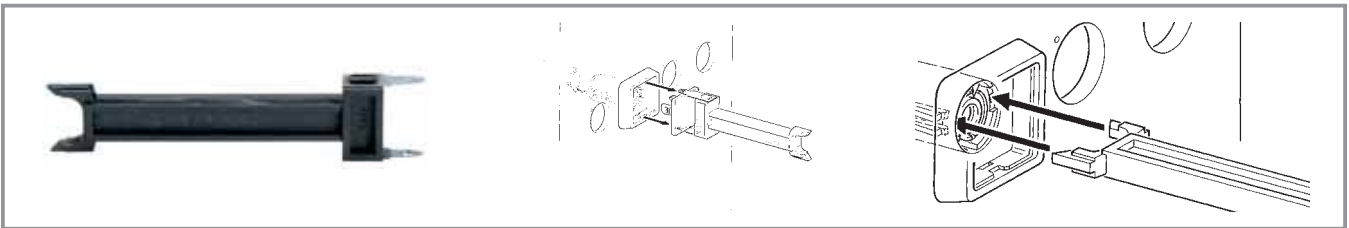
Short text	Feature 1	Feature 2	Order no.
Fixing spanner M 18, M 19	-	-	<b>5.58.002.017/0105</b>
Fixing spanner M 20, M 22, for ring nut	-	-	<b>5.58.002.018/0105</b>
Fixing spanner M 15, M 16	-	-	5.58.002.019/0105
Fixing spanner M 25, M 30	-	-	<b>5.58.002.020/0105</b>
Fixing spanner M 9, M 10	-	-	<b>5.58.002.025/0105</b>
Fixing spanner M 11, M 13	-	-	<b>5.58.002.026/0105</b>
Fixing spanner M 8	-	-	<b>5.58.002.027/7705</b>
Fixing spanner, hexagon, for RAFIX 16	-	-	5.58.002.034/0100

**RAFIX 22QR/FS - Fixing spanner for ring nut and front ring**



Short text	Feature 1	Feature 2	Order no.
Fixing spanner for ring nut and front ring	-	-	<b>5.05.800.062/0000</b>

**LUMOTAST FK/25 - Disassembly tool**



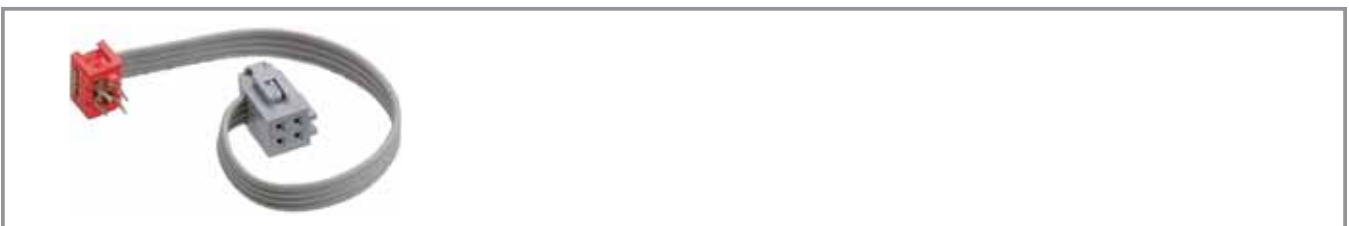
Short text	Feature 1	Feature 2	Order no.
Disassembly tool for LUMOTAST FK	-	-	<b>5.05.800.041/0000</b>

**LUMOTAST FK/25 - Socket connector, 4-pin**



Short text	Feature 1	Feature 2	Order no.
Socket connector, 4-pin	-	-	<b>5.92.025.368/0000</b>

**LUMOTAST FK/25 - Flat ribbon cable, 10 cm, with socket connector and AMP 4-pin male quick connector**



Short text	Feature 1	Feature 2	Order no.
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)	-	-	<b>5.03.771.306/0000</b>

5

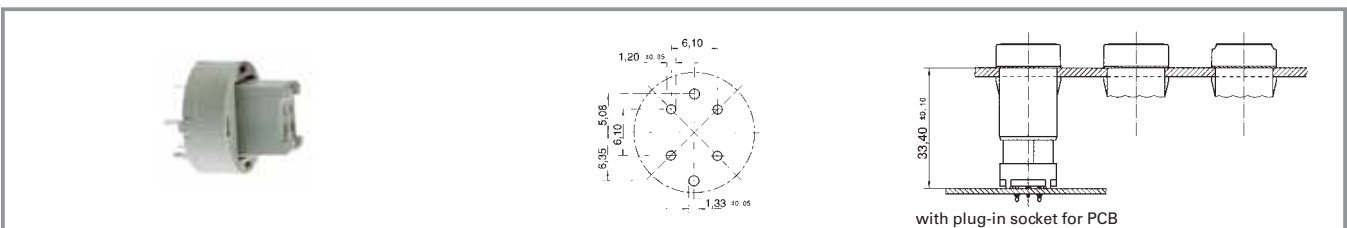
Others

**LUMOTAST FK/25 - Flat ribbon cable, 4-wire, length 1 m**



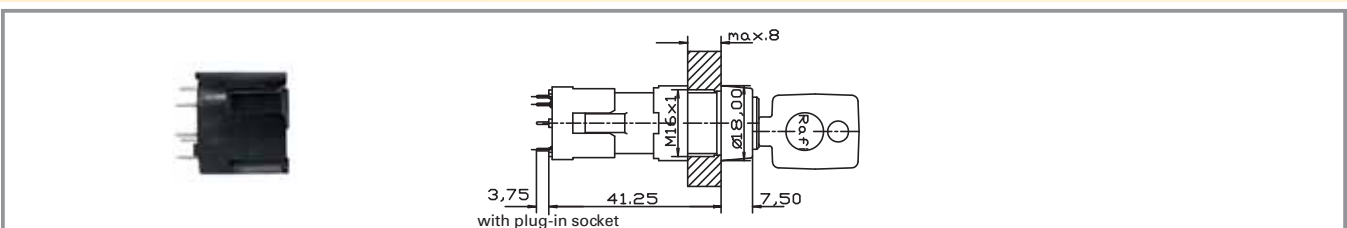
Short text	Feature 1	Feature 2	Order no.
Flat ribbon cable, 4-wire, 1 m long	-	-	5.37.700.124/0000

**LUMOTAST FK/25 - Plug-in socket for PCB**



Short text	Feature 1	Feature 2	Order no.
Plug-in socket for PCB	-	-	<b>5.00.645.036/0000</b>

**Keylock switch - PCB plug-in socket**



Short text	Feature 1	Feature 2	Order no.
Plug-in socket for PCB mounting	-	-	5.05.510.298/0000

5

Others

**LUMOTAST 75 IP40/65 - Protective cap**



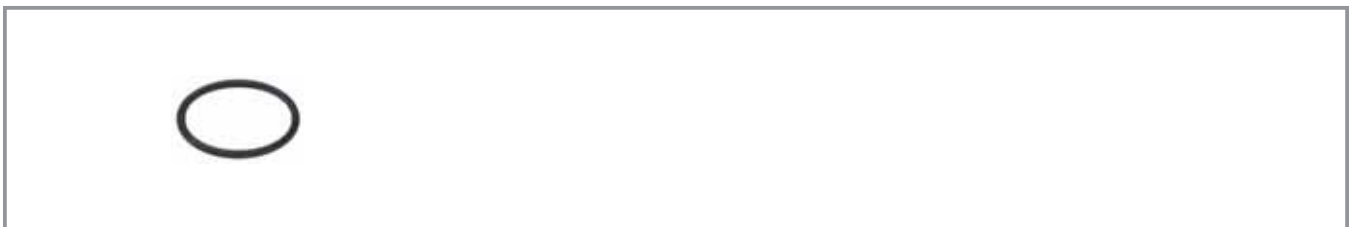
Short text	Feature 1	Feature 2	Order no.
Protective cap (for 18 x 24 collar)	-	-	5.05.800.027/0000
Protective cap (for 18 x 18 collar)	-	-	5.05.800.030/0000

**LUMOTAST 75 IP40/65 - Sealing cap**



Short text	Feature 1	Feature 2	Order no.
Sealing cap IP65 (for 18 x 24 collar)	18 x 24 mm	-	5.05.200.008/0000
Sealing cap IP65 (for 18 x 18 collar)	18 x 18 mm	-	5.05.200.009/0000

**Signal lamp Ø 22.3 mm - Sealing ring for IP 65**



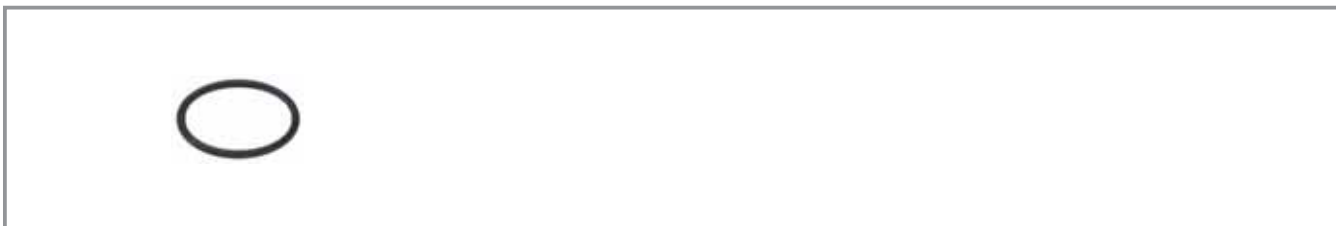
Short text	Feature 1	Feature 2	Order no.
Sealing ring for IP65	-	-	5.30.075.010/0100

5

Others

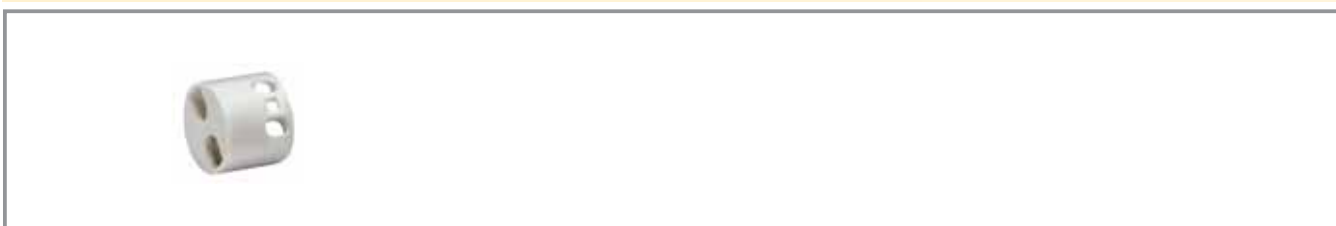


**O-ring**



Short text	Feature 1	Feature 2	Order no.
O-ring, black, for blocking the operating stroke	-	-	5.30.120.009/0100
O-ring for keylock switch	-	-	5.30.120.015/0100
O-ring, black, 17.0 x 1.5, for blocking RF 19H keys	-	-	5.30.125.003/0100
O-ring, black, 16.0 x 1, for blocking RF 19H keys	-	-	5.30.125.007/0100

**Pushbutton 16.2 mm - Protection against contact**



Short text	Feature 1	Feature 2	Order no.
Protection against contact to VBG 4	-	-	5.55.101.715/0200

**Signal lamps - Protection against contact**



Short text	Feature 1	Feature 2	Order no.
Protection against contact to VBG 4	-	-	5.50.240.063/0209
Protection against contact to VBG 5	-	-	5.50.240.065/0200

**5**

Others

**LUMOTAST 75 IP40/65 - Blanking cap, black, Ø 16.2 mm**



Short text	Feature 1	Feature 2	Order no.
Blanking cap, black, to cover spare holes, dimensions 18 x 18 mm	-	-	5.52.006.020/0103
Blanking cap, black, to cover spare holes, dimensions 18 x 24 mm	-	-	5.52.006.021/0100
Blanking cap, black, to cover spare holes, round 18 mm	-	-	5.52.006.022/0100

**RAFIX 16 - Blanking cap with sealing and threaded ring, Ø 16.2 mm**



Short text	Feature 1	Feature 2	Order no.
Blanking cap complete with sealing disc and ring nut, square	-	-	<b>5.05.800.049/0100</b>
Blanking cap complete with sealing disc and ring nut, round	-	-	<b>5.05.800.050/0100</b>
Blanking cap complete with sealing disc and ring nut, square, alignable without gaps	-	-	<b>5.05.800.051/0100</b>

**RAFIX 22 QR - Blanking cap, Ø 22.3 mm**



Short text	Feature 1	Feature 2	Order no.
Blanking cap IP65, ring nut, square	-	-	<b>5.05.800.065/0000</b>
Blanking cap IP65, ring nut, round	-	-	<b>5.05.800.064/0000</b>

**RAFIX 22 FS - Blanking cap, Ø 22.3 mm**



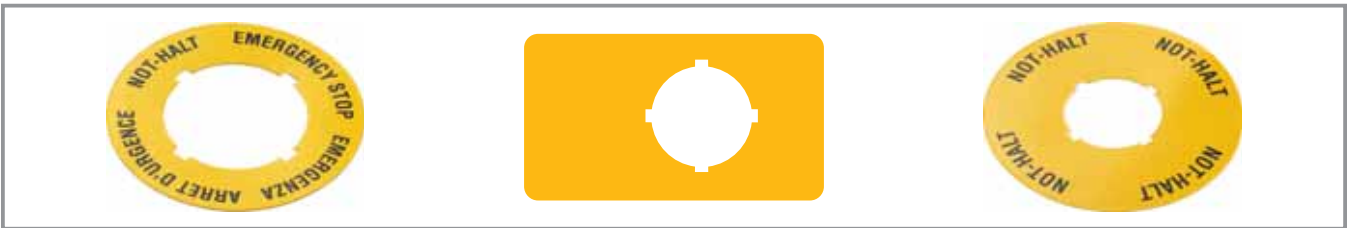
Short text	Feature 1	Feature 2	Order no.
Blanking cap IP65, ring nut, square	-	-	5.05.800.068/0000
Blanking cap IP65, ring nut, round	-	-	5.05.800.067/0000
Blanking cap IP65, ring nut, round, high version, can be used for covering mounted PCB contact blocks.	-	-	5.05.200.025/0000
Blanking cap IP65, ring nut, square, high version, can be used for covering mounted PCB contact blocks.	-	-	5.05.200.026/0000

**Emergency stop label, PVC adhesive, Ø 16.3 mm**



Short text	Feature 1 Ø outward	Feature 2 Ø inward	Order no.
Adhesive label yellow, round 16.3 / 60 mm, without legend	60 mm	16.3 mm	<b>5.76.204.400/0400</b>
Adhesive label yellow, round 16.3 / 60 mm, with legend „Not-Aus“	60 mm	16.3 mm	<b>5.76.204.401/0400</b>
Adhesive label yellow, round 16.3 / 60 mm, with legend „EMERGENCY STOP“	60 mm	16.3 mm	<b>5.76.204.403/0400</b>
Adhesive label yellow, round 16.3 / 60 mm, with legend „NOT-HALT, EMERGENCY STOP, ARRET D’URGENCE, EMERGENZA“	60 mm	16.3 mm	5.76.204.106/0400
Adhesive label yellow, round 16.3 / 60 mm, with legend 4 x „NOT-HALT“	60 mm	16.3 mm	5.76.204.108/0400
Adhesive label yellow, round 16.3 / 60 mm, with legend 4 x „NOT-AUS“	60 mm	16.3 mm	5.76.204.110/0400
Adhesive label yellow, round 16.3 / 60 mm, with legend 4 x „EMERGENCY STOP“	60 mm	16.3 mm	5.76.204.112/0400
Adhesive label yellow, round 16.3 / 40 mm, with legend „NOT-HALT, EMERGENCY STOP, ARRET D’URGENCE, EMERGENZA“	40 mm	16.3 mm	5.76.204.114/0400
Adhesive label yellow, round 16.3 / 40 mm, with legend 4 x „NOT-HALT“	40 mm	16.3 mm	5.76.204.116/0400
Adhesive label yellow, round 16.3 / 40 mm, with legend 4 x „NOT-AUS“	40 mm	16.3 mm	5.76.204.118/0400
Adhesive label yellow, round 16.3 / 40 mm, with legend 4 x „EMERGENCY STOP“	40 mm	16.3 mm	5.76.204.120/0400

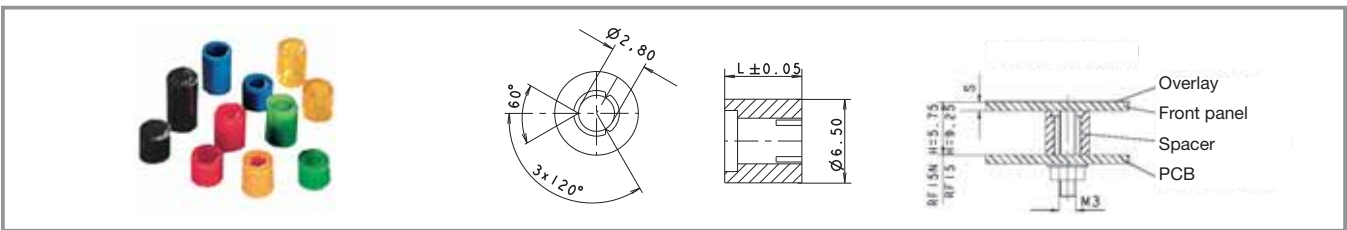
Emergency stop label, Ø 22.3 mm



Short text	Feature 1 Ø outward	Feature 2 Ø inward	Order no.
Emergency stop label, yellow, round 60 mm, rigid PVC, with legend „Not-Aus“	60 mm	22.3 mm	<b>5.76.207.001/0400</b>
Emergency stop label, yellow, round 60 mm, rigid PVC, with legend „EMERGENCY-STOP/ARRET D'URGENCE“	60 mm	22.3 mm	<b>5.76.207.002/0400</b>
Adhesive label yellow, round 22.3 / 60 mm, without legend	60 mm	22.3 mm	<b>5.76.204.100/0400</b>
Adhesive label yellow, round 22.3 / 60 mm, with legend 1 x „Not-Aus“	60 mm	22.3 mm	<b>5.76.204.101/0400</b>
Adhesive label yellow, round 22.3 / 60 mm, with legend 1 x „ARRET D'URGENCE“	60 mm	22.3 mm	5.76.204.102/0400
Adhesive label yellow, round 22.3 / 60 mm, with legend 1 x „EMERGENCY-STOP“	60 mm	22.3 mm	<b>5.76.204.103/0400</b>
Emergency stop label, yellow rectangular 36 x 64 mm, without legend	36 x 64 mm	22.3 mm	5.76.205.011/0400
Adhesive label yellow, round 22.3 / 60 mm, with legend „NOT-HALT, EMERGENCY STOP, ARRET D'URGENCE, EMERGENZA“	60 mm	22.3 mm	5.76.204.107/0400
Adhesive label yellow, round 22.3 / 60 mm, with legend 4 x „NOT-HALT“	60 mm	22.3 mm	5.76.204.109/0400
Adhesive label yellow, round 22.3 / 60 mm, with legend 4 x „NOT-AUS“	60 mm	22.3 mm	5.76.204.111/0400
Adhesive label yellow, round 22.3 / 60 mm, with legend 4 x „EMERGENCY STOP“	60 mm	22.3 mm	5.76.204.113/0400
Adhesive label yellow, round 22.3 / 40 mm, with legend „NOT-HALT, EMERGENCY STOP, ARRET D'URGENCE, EMERGENZA“	40 mm	22.3 mm	5.76.204.115/0400
Adhesive label yellow, round 22.3 / 40 mm, with legend 4 x „NOT-HALT“	40 mm	22.3 mm	5.76.204.117/0400
Adhesive label yellow, round 22.3 / 40 mm, with legend 4 x „NOT-AUS“	40 mm	22.3 mm	5.76.204.119/0400
Adhesive label yellow, round 22.3 / 40 mm, with legend 4 x „EMERGENCY STOP“	40 mm	22.3 mm	5.76.204.121/0400

Degree of protection: rigid PVC: IP40, adhesive foil: IP65

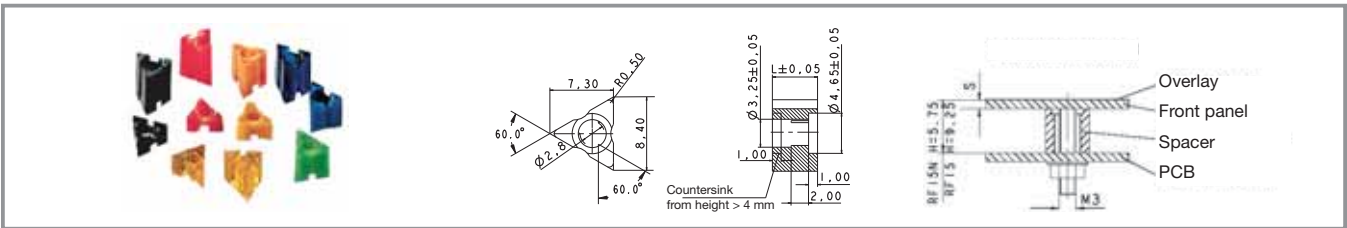
Spacers, round



Length	Width	Overall height	Diameter	Colour	Order no.
3.50 mm	-	-	-	blue transparent	5.30.759.023/0000
4 mm	-	-	-	green	5.30.759.251/0000
4.25 mm	-	-	-	blue	5.30.759.025/0000
4.50 mm	-	-	-	red	5.30.759.026/0000
4.75 mm	-	-	-	blue transparent	5.30.759.027/0000
5 mm	-	-	-	black	5.30.759.028/0000
5.25 mm	-	-	-	yellow orange transparent	5.30.759.029/0000
5.50 mm	-	-	-	yellow	5.30.759.030/0000
5.75 mm	-	-	-	green	5.30.759.031/0000
6 mm	-	-	-	blue	<b>5.30.759.032/0000</b>
6.2 mm	-	-	-	blue	<b>5.30.759.033/0000</b>
6.25 mm	-	-	-	red	<b>5.30.759.034/0000</b>
6.50 mm	-	-	-	blue transparent	<b>5.30.759.035/0000</b>
6.75 mm	-	-	-	black	<b>5.30.759.036/0000</b>
7 mm	-	-	-	yellow orange transparent	<b>5.30.759.037/0000</b>
7.25 mm	-	-	-	yellow	<b>5.30.759.038/0000</b>
7.50 mm	-	-	-	green	<b>5.30.759.039/0000</b>
7.75 mm	-	-	-	blue	<b>5.30.759.040/0000</b>
8 mm	-	-	-	red	<b>5.30.759.041/0000</b>
8.25 mm	-	-	-	blue transparent	<b>5.30.759.042/0000</b>
10.00 mm	-	-	-	black	<b>5.30.759.043/0104</b>

Required spacer length = Overall height of key - front panel thickness - 0.5 mm (area embossing).

Spacers, triangular



Length	Width	Overall height	Diameter	Colour	Order no.
2.50 mm	-	-	-	blue	5.30.759.094/0000
2.75 mm	-	-	-	red	5.30.759.095/0000
3 mm	-	-	-	blue transparent	5.30.759.096/0000
3.25 mm	-	-	-	black	5.30.759.097/0000
3.50 mm	-	-	-	yellow orange transparent	5.30.759.098/0000
3.75 mm	-	-	-	yellow	5.30.759.099/0000
4 mm	-	-	-	green	5.30.759.100/0000
4.25 mm	-	-	-	blue	5.30.759.101/0000
4.50 mm	-	-	-	red	5.30.759.102/0000
4.75 mm	-	-	-	blue transparent	5.30.759.103/0000
5 mm	-	-	-	black	5.30.759.104/0000
5.25 mm	-	-	-	yellow orange transparent	5.30.759.105/0000
5.50 mm	-	-	-	yellow	5.30.759.106/0000
5.75 mm	-	-	-	green	5.30.759.107/0000
6 mm	-	-	-	blue	5.30.759.108/0000
6.2 mm	-	-	-	blue	5.30.759.253/0000
6.25 mm	-	-	-	red	5.30.759.109/0000
6.50 mm	-	-	-	blue transparent	5.30.759.110/0000
6.75 mm	-	-	-	black	5.30.759.111/0000
7 mm	-	-	-	yellow orange transparent	5.30.759.112/0000
7.25 mm	-	-	-	yellow	5.30.759.113/0000
7.50 mm	-	-	-	green	5.30.759.114/0000
7.75 mm	-	-	-	blue	5.30.759.115/0000

**5**

Others

Length	Width	Overall height	Diameter	Colour	Order no.
8 mm	-	-	-	red	5.30.759.116/0000
8.25 mm	-	-	-	blue transparent	5.30.759.117/0000
9 mm	-	-	-	blue	5.30.759.254/0000
10.00 mm	-	-	-	black	5.30.759.124/0000
10.25 mm	-	-	-	yellow orange transparent	5.30.759.125/0000

Required spacer length = Overall height of key - front panel thickness - 0.5 mm (area embossing).





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