## Accessories

General information ..... 5-2
Accessories - Luminous elements ..... 5-3
Filament/neon lamp ..... 5-4
LED ..... 5-14
Other accessories ..... 5-19
Accessories ..... 5-20

## General information

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

| transparent <br> colours | Suitable for |  |  |
| :--- | :--- | :--- | :--- |
| colourless | limited | good | good |
| red | good | good | good |
| yellow | good | good | good |
| green | good | limited | limited |
| blue | limited | limited | good |

$\begin{aligned} & \text { transparent }=\text { clear, grooved on inside for better light } \\ & \text { diffusion }\end{aligned}$

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 coresponding 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

## Content

Filament/neon lamp $\quad \mathbf{5 - 4}$
Filament lamps, wedge base W $2 \times 4.6 d$ DIN 49846 5-4
Filament lamps, Bi-PinT 1 base 5-5
Filament lamps, Bi-PinT $1 / 4$ base $5-5$
Filament lamps T 4.5 5-6
Filament lampsT 4.6 5-6
Filament lamps, BA 9s base (MBC/MCC), shape G, DIN 72601 5-7
Filament lamps, BA 9s base (MBC/MCC), shape A, DIN 49851 5-7
Neon lamps, BA 9s base (MBC/MCC) 5-8
Neon lamps, BA 9s base (MBC/MCC), DIN 49850 5-8
Filament lamps, BA 15d base, DIN 49850 5-8
Filament lamps, BA 15d base, DIN 49852 5-9
Filament lamps, BA 15d base
5-9
$\begin{array}{ll}\text { Filament lamps, E } 10 \text { (MES) base } & 5-10\end{array}$
Neon lamps, E 10 (MES) base $\quad 5-10$
Filament lamps, E 14 base, shape B, DIN 49850 5-10
Filament lamps, E 14 base, shape A, DIN 49852 5-11
Filament lamps, E 14 base
5-11
Neon lamps, E 14 base, shape B
5-12
Filament lamps, tubular lamp, S 8.5 base, shape L, DIN 72601
5-12
Filament lamps, tubular lamp, S 8.5 base, shape K, DIN 72601
5-12
$\begin{array}{ll}\text { LED } & 5-14\end{array}$
LEDW $2 \times 4.6$ d superbright $\quad 5-14$
LED Bi-PinT 1
LED Bi-PinT 1 superbright
LEDT 4.5
LEDT 4.5 superbright
-

LED BA 9s (MBC/MCC) superbright 5-17
$\begin{array}{lll}\text { LED } 3 \mathrm{~mm} \text {, without base } & 5-17\end{array}$

## Filament/neon lamp

$\square$

## Typical accessories Filament/neon lamp

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

Filament lamps, wedge baseW $2 \times 4.6 d$ DIN 49846

| $\text { curtin} \frac{5 x}{\text { cos }}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 1.90.120.012/0000 | 1.90.900.003/0000 |
| 24-30V | 0.04 A | 1 W | 5 mm | 20 mm | 1000 h | 1.90.120.005/0000 | 1.90.900.003/0000 |
| 24 V | 0.04 A | 1.2 W | 5 mm | 20 mm | 7000 h | 1.90.120.011/0000 | 1.90.900.003/0000 |
| 48 V | 0.025 A | 1.2 W | 5 mm | 19 mm | 2500 h | 1.90.120.010/0000 | 1.90.900.003/0000 |
| 60 V | 0.02 A | 1.2 W | 5 mm | 19 mm | 3300 h | 1.90.120.009/0000 | 1.90.900.003/0000 |

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-PinT 1 base


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-PinT $1 / 4$ base


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


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 | 0.3W | 4 mm | 22 mm | 5000 h | 1.90.100.012/0000 | 1.90.900.002/0000 |
| 24V | 0.02 A | 0.5 W | 4 mm | 22 mm | 5000 h | 1.90.100.013/0000 | 1.90.900.002/0000 |

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

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

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


AC operation. With DC operation, these are reduced by about $40 \%$.

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



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


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 |
| 12-15V | 0.12 A | 2 W | $15.2 / 12.5$ $\mathrm{mm}$ | 31 mm | 1000 h | 1.90.070.003/0000 | 1.90.900.008/0000 |
| 24-30V | 0.08 A | 2 W | $15.2 / 12.5$ <br> mm | 31 mm | 1000 h | 1.90.070.004/0000 | 1.90.900.008/0000 |

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


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 | 1.90.070.053/0000 | 1.90.900.009/0000 |
| 220-260 V | 0,02-0,03 A | 5-7W | 16 mm | 36 mm | 1000 h | 1.90.070.061/0000 | 1.90.900.009/0000 |
| 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 |
| 24-30V | 0.083 A | 2W | 11 mm | 29 mm | 1000 h | 1.90.010.033/0000 | 1.90.900.007/0000 |
| 110-130V | 0.018 A | 2W | 11 mm | 30 mm | 1000 h | 1.90.010.037/0000 | 1.90.900.007/0000 |

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
$\square$
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



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 |
| 24-30V | 0.165 A | 4W | 17 mm | 57 mm | 1000 h | 1.90.020.105/0000 | 1.90.900.009/0000 |
| 220-260V | 0.023 A | 5W | 17 mm | 57 mm | 1000 h | 1.90.020.115/0000 | 1.90.900.009/0000 |

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 | 5W | 16 mm | 36 mm | 2000 h | 1.90.020.053/0000 | 1.90.900.009/0000 |
| 220-260V | 0,02-0,03 A | 5-7W | 16 mm | 36 mm | 1000 h | 1.90.020.061/0000 | 1.90.900.009/0000 |

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 AC V | $\begin{aligned} & 0.0014- \\ & 0.0026 \text { A } \end{aligned}$ | - | 14.1/11.5 mm | 31 mm | - | 1.90.520.002/0000 | 1.90.900.008/0000 |

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
$\square$
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



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

$\square$

## LED W $2 \times 4.6 \mathrm{~d}$ superbright

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Socket | Colour | Forward voltage typ. $U_{F}$ at $I_{F}$ | Max. current, lf | Light intensity | Order no. | Accessoires lamp extractor |
| W $2 \times 4.6 \mathrm{~d}$ | red | 24 | 12 mA | 70 mcd | 1.90.690.361/0000 | 1.90.900.003/0000 |
| W $2 \times 4.6 \mathrm{~d}$ | green | 24 | 12 mA | 600 mcd | 1.90.690.362/0000 | 1.90.900.003/0000 |
| W $2 \times 4.6 \mathrm{~d}$ | yellow | 24 | 12 mA | 80 mcd | 1.90.690.363/0000 | 1.90.900.003/0000 |
| W $2 \times 4.6 \mathrm{~d}$ | blue | 24 | 12 mA | 300 mcd | 1.90.690.364/0000 | 1.90.900.003/0000 |
| W $2 \times 4.6 \mathrm{~d}$ | white | 24 | 12 mA | 400 mcd | 1.90.690.365/0000 | 1.90.900.003/0000 |

All LEDs are provided with a protective diode. Operating temperature $-30^{\circ} \mathrm{C} \ldots+65^{\circ} \mathrm{C}$.
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, $\mathrm{I}_{\mathrm{F}}$ | Light intensity | Order no. | Accessoires lamp extractor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bi-PinT 1 | red | 2 | 10 mA | 26-52 mcd | 1.90.691.026/0000 | 1.90.900.001/0000 |
| Bi-PinT 1 | green | 2 | 10 mA | $9-33 \mathrm{mcd}$ | 1.90.691.027/0000 | 1.90.900.001/0000 |
| Bi-PinT 1 | yellow | 2 | 10 mA | 26-52 mcd | 1.90.691.028/0000 | 1.90.900.001/0000 |

Voltage $\mathrm{U}_{\mathrm{B}}$ : External resistor: $\mathrm{Rv}=\left(\mathrm{U}_{\mathrm{B}}-\mathrm{U}_{\mathrm{F}}\right)$ : $\mathrm{I}_{\mathrm{F}}$
A suitable series resistor must be fitted externally.
Recommended resistor ratings:

- for $5-7 \mathrm{~V}=270 \Omega 0.25 \mathrm{~W}$
- for 12 - $14 \mathrm{~V}=680 \Omega 0.50 \mathrm{~W}$
- for $24-28 \mathrm{~V}=1500 \Omega 1.00 \mathrm{~W}$

Forward voltage Uf: 2 V (3V max.)
Reverse voltage $U_{R}: 5 \mathrm{~V}$
Reverse current $I_{R}: 100 \mu \mathrm{~A}$.
Forward current: 10 mA
Operating temperature: $-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$
Storage temperature: $-30^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$
Operating life: $100,000 \mathrm{~h}$ at $\mathrm{U} u=25^{\circ} \mathrm{C}$ )

LED Bi-Pin T 1 superbright

| Socket | Colour | Forward voltage typ. $U_{F}$ at $\mathrm{I}_{\mathrm{F}}$ | Max. current, $\mathrm{I}_{\mathrm{F}}$ | Light intensity | Order no. | Accessoires lamp extractor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bi-PinT 1 | red | 24 | 11 mA | 70 mcd | 1.90.690.351/0000 | 1.90.900.001/0000 |
| Bi-PinT 1 | green | 24 | 11 mA | 600 mcd | 1.90.690.352/0000 | 1.90.900.001/0000 |
| Bi-PinT 1 | yellow | 24 | 11 mA | 80 mcd | 1.90.690.353/0000 | 1.90.900.001/0000 |
| Bi-PinT 1 | blue | 24 | 11 mA | 300 mcd | 1.90.690.354/0000 | 1.90.900.001/0000 |
| Bi-PinT 1 | white | 24 | 11 mA | 400 mcd | 1.90.690.355/0000 | 1.90.900.001/0000 |

LEDT 4.5

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

Voltage $U_{B}$ : External resistor: $\mathrm{R}_{\mathrm{v}}=\left(\mathrm{U}_{\mathrm{B}}-\mathrm{U}_{\mathrm{F}}\right)$ : $\mathrm{I}_{\mathrm{F}}$
A suitable series resistor must be fitted externally.
Recommended resistor ratings:

- for $5-7 \mathrm{~V}=270 \Omega 0.25 \mathrm{~W}$
- for $12-14 \mathrm{~V}=680 \Omega 0.50 \mathrm{~W}$
- for $24-28 \mathrm{~V}=1500 \Omega 1.00 \mathrm{~W}$

Forward voltage Uf: 2 V (3V max.)
Reverse voltage $U_{R}: 5 \mathrm{~V}$
Reverse current $I_{R}: 100 \mu \mathrm{~A}$.
Forward current: 10 mA
Operating temperature: $-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$
Storage temperature: $-30^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$
Operating life: $100,000 \mathrm{~h}$ at $\mathrm{T} u=25^{\circ} \mathrm{C}$ )

LED T 4.5 superbright

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

All LEDs are provided with a protective diode. Operating temperature $-30^{\circ} \mathrm{C} \ldots+65^{\circ} \mathrm{C}$.
For more intensive colours, please combine coloured lenses with suitable LED colours.

LED BA 9s (MBC/MCC) superbright

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

All LEDs are provided with a protective diode. Operating temperature $-30^{\circ} \mathrm{C} \ldots+65^{\circ} \mathrm{C}$.
For more intensive colours, please combine coloured lenses with suitable LED colours.

LED 3 mm, without base

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

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 $245^{\circ} \mathrm{C}$ and for wave soldering $245^{\circ} \mathrm{C} / 10 \mathrm{~s}$.

## General Data

Other accessories

## Content

| Accessories | 5-20 |
| :---: | :---: |
| Lamp extractor | 5-20 |
| Fixing spanner | 5-21 |
| RAFIX 220R/FS - Fixing spanner for ring nut and front ring | 5-21 |
| LUMOTAST FK/25-Disassembly tool | 5-22 |
| LUMOTAST FK/25-Socket connector, 4-pin | 5-22 |
| LUMOTAST FK/25-Flat ribbon cable, 10 cm , with socket connector and AMP 4-pin male quick connector | 5-22 |
| LUMOTAST FK/25-Flat ribbon cable, 4-wire, length 1 m | 5-23 |
| LUMOTAST FK/25-Plug-in socket for PCB | 5-23 |
| Keylock switch - PCB plug-in socket | 5-23 |
| LUMOTAST 75 IP40/65-Protective cap | 5-24 |
| LUMOTAST 75 IP40/65-Sealing cap | 5-24 |
| Signal lamp Ø 22.3 mm - Sealing ring for IP 65 | 5-24 |
| O-ring | 5-25 |
| Pushbutton 16.2 mm - Protection against contact | 5-25 |
| Signal lamps - Protection against contact | 5-25 |
| LUMOTAST 75 IP40/65-Blanking cap, black, Ø 16.2 mm | 5-26 |
| RAFIX 16 - Blanking cap with sealing and threaded ring, $\varnothing 16.2 \mathrm{~mm}$ | 5-26 |
| RAFIX 22 QR - Blanking cap, Ø 22.3 mm | 5-27 |
| RAFIX 22 FS - Blanking cap, Ø 22.3 mm | 5-27 |
| Emergency stop label, PVC adhesive, $\varnothing 16.3$ mm | 5-28 |
| Emergency stop label, $\emptyset 22.3 \mathrm{~mm}$ | 5-29 |
| Spacers, round | 5-30 |

## Accessories



## Lamp extractor

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

## Fixing spanner

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

RAFIX 220R/FS - Fixing spanner for ring nut and front ring


## LUMOTAST FK/25 - Disassembly tool



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

|  |  |  |
| :--- | :--- | :--- | :--- |

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



## 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

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



## Keylock switch - PCB plug-in socket



## LUMOTAST 75 IP40/65 - Protective cap

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Short text | Feature 1 | Feature 2 | Order no. |
| Protective cap (for $18 \times 24$ collar) | - |  |  |
| Protective cap (for $18 \times 18$ collar) | - | - | $5.05 .800 .027 / 0000$ |

## LUMOTAST 75 IP40/65 - Sealing cap

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Short text | Feature 1 | Feature 2 | Order no. |
| Sealing cap IP65 (for $18 \times 24$ collar) | $18 \times 24 \mathrm{~mm}$ | - | 5.05.200.008/0000 |
| Sealing cap IP65 (for $18 \times 18$ collar) | $18 \times 18 \mathrm{~mm}$ | - | 5.05.200.009/0000 |

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



## 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, $17.0 \times 1.5$, for blocking RF 19 H keys | - | - | 5.30.125.003/0100 |
| O-ring, black, $16.0 \times 1$, for blocking RF 19H keys | - | - | 5.30.125.007/0100 |

## Pushbutton 16.2 mm - Protection against contact

|  |  |  |
| :--- | :--- | :--- |

## Signal lamps - Protection against contact

|  | Feature 1 | Feature 2 |  |
| :--- | :--- | :--- | :--- |

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

|  | Feature 1 | Feature 2 |  |  |
| :--- | :--- | :--- | :--- | :--- |

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 | - | - | 5.05.800.049/0100 |
| Blanking cap complete with sealing disc and ring nut, round | - | - | 5.05.800.050/0100 |
| Blanking cap complete with sealing disc and ring nut, square, alignable without gaps | - | - | 5.05.800.051/0100 |

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

|  | Panel cut-out to IEC 60947-5-1 |  |  |
| :---: | :---: | :---: | :---: |
| Short text | Feature 1 | Feature 2 | Order no. |
| Blanking cap IP65, ring nut, square | - | - | 5.05.800.065/0000 |
| Blanking cap IP65, ring nut, round | - | - | 5.05.800.064/0000 |

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

| Pict: square |
| :--- | :--- | :--- | :--- | :--- | :--- |

Emergency stop label, PVC adhesive, Ø 16.3 mm

| NOT |
| :--- | :--- | :--- | :--- |

Emergency stop label, Ø $\mathbf{2 2 . 3 \text { mm }}$


## Spacers, round



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. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 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 <br> transparent | $5.30 .759 .125 / 0000$ |

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

