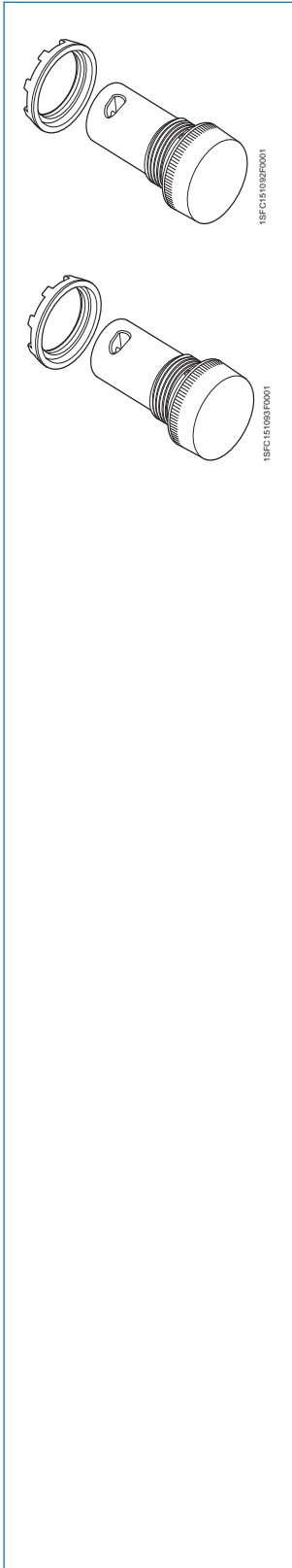


# Pilot devices - Compact range

## Pilot lights/Pilot lights with integrated LED



### Pilot light Ba 9s base, bulb not included

| Description   | Type    | Order Code         | Weight, kg |
|---------------|---------|--------------------|------------|
| <b>Color:</b> |         |                    |            |
| Red           | CL-100R | 1SFA 619 402 R1001 | 0.018      |
| Green         | CL-100G | 1SFA 619 402 R1002 | 0.018      |
| Yellow        | CL-100Y | 1SFA 619 402 R1003 | 0.018      |
| Blue          | CL-100L | 1SFA 619 402 R1004 | 0.018      |
| White         | CL-100W | 1SFA 619 402 R1005 | 0.018      |
| Clear         | CL-100C | 1SFA 619 402 R1008 | 0.018      |

### Pilot light with integrated LED Service life >50 000 hours

| Color  | Rated current mA | Lumiance mcd | Wave-length nm   | Type    | Order Code         | Weight, kg |
|--|------------------|--------------|------------------|---------|--------------------|------------|
| <b>Rated voltage 12 V, DC <sup>1)</sup></b>      |                  |              |                  |         |                    |            |
| Red  | 30               | 60           | 625              | CL-501R | 1SFA 619 402 R5011 | 0.023      |
| Green  | 15               | 126          | 520              | CL-501G | 1SFA 619 402 R5012 | 0.023      |
| Yellow   | 30               | 60           | 590              | CL-501Y | 1SFA 619 402 R5013 | 0.023      |
| Blue   | 30               | 22           | 470              | CL-501L | 1SFA 619 402 R5014 | 0.023      |
| White  | 30               | 88           | x=0.31<br>y=0.32 | CL-501W | 1SFA 619 402 R5015 | 0.023      |
| <b>Rated voltage 24 V, AC/DC</b>                 |                  |              |                  |         |                    |            |
| Red  | 15               | 60           | 625              | CL-502R | 1SFA 619 402 R5021 | 0.023      |
| Green  | 15               | 126          | 520              | CL-502G | 1SFA 619 402 R5022 | 0.023      |
| Yellow   | 15               | 60           | 590              | CL-502Y | 1SFA 619 402 R5023 | 0.023      |
| Blue   | 15               | 22           | 470              | CL-502L | 1SFA 619 402 R5024 | 0.023      |
| White  | 15               | 88           | x=0.31<br>y=0.32 | CL-502W | 1SFA 619 402 R5025 | 0.023      |
| <b>Rated voltage 48 V, AC/DC</b>                 |                  |              |                  |         |                    |            |
| Red  | 15               | 60           | 625              | CL-504R | 1SFA 619 402 R5041 | 0.023      |
| Green  | 15               | 126          | 520              | CL-504G | 1SFA 619 402 R5042 | 0.023      |
| Yellow   | 15               | 60           | 590              | CL-504Y | 1SFA 619 402 R5043 | 0.023      |
| Blue   | 15               | 22           | 470              | CL-504L | 1SFA 619 402 R5044 | 0.023      |
| White  | 15               | 88           | x=0.31<br>y=0.32 | CL-504W | 1SFA 619 402 R5045 | 0.023      |
| <b>Rated voltage 60 V, AC/DC</b>                 |                  |              |                  |         |                    |            |
| Red  | 15               | 60           | 625              | CL-505R | 1SFA 619 402 R5051 | 0.023      |
| Green  | 15               | 126          | 520              | CL-505G | 1SFA 619 402 R5052 | 0.023      |
| Yellow   | 15               | 60           | 590              | CL-505Y | 1SFA 619 402 R5053 | 0.023      |
| Blue   | 15               | 22           | 470              | CL-505L | 1SFA 619 402 R5054 | 0.023      |
| White  | 15               | 88           | x=0.31<br>y=0.32 | CL-505W | 1SFA 619 402 R5055 | 0.023      |
| <b>Rated voltage 110-130 V, AC</b>               |                  |              |                  |         |                    |            |
| Red  | 15               | 60           | 625              | CL-513R | 1SFA 619 402 R5131 | 0.023      |
| Green  | 15               | 126          | 520              | CL-513G | 1SFA 619 402 R5132 | 0.023      |
| Yellow   | 15               | 60           | 590              | CL-513Y | 1SFA 619 402 R5133 | 0.023      |
| Blue   | 15               | 22           | 470              | CL-513L | 1SFA 619 402 R5134 | 0.023      |
| White  | 15               | 88           | x=0.31<br>y=0.32 | CL-513W | 1SFA 619 402 R5135 | 0.023      |
| <b>Rated voltage 110-130 V, DC <sup>1)</sup></b> |                  |              |                  |         |                    |            |
| Red  | 15               | 60           | 625              | CL-515R | 1SFA 619 402 R5151 | 0.023      |
| Green  | 15               | 126          | 520              | CL-515G | 1SFA 619 402 R5152 | 0.023      |
| Yellow   | 15               | 60           | 590              | CL-515Y | 1SFA 619 402 R5153 | 0.023      |
| Blue   | 15               | 22           | 470              | CL-515L | 1SFA 619 402 R5154 | 0.023      |
| White  | 15               | 88           | x=0.31<br>y=0.32 | CL-515W | 1SFA 619 402 R5155 | 0.023      |
| <b>Rated voltage 220 V, DC <sup>1)</sup></b>     |                  |              |                  |         |                    |            |
| Red  | 15               | 60           | 625              | CL-515R | 1SFA 619 402 R5201 | 0.023      |
| Green  | 15               | 126          | 520              | CL-515G | 1SFA 619 402 R5202 | 0.023      |
| Yellow   | 15               | 60           | 590              | CL-515Y | 1SFA 619 402 R5203 | 0.023      |
| Blue   | 15               | 22           | 470              | CL-515L | 1SFA 619 402 R5204 | 0.023      |
| White  | 15               | 88           | x=0.31<br>y=0.32 | CL-515W | 1SFA 619 402 R5205 | 0.023      |
| <b>Rated voltage 230 V, AC</b>                   |                  |              |                  |         |                    |            |
| Red  | 15               | 60           | 625              | CL-523R | 1SFA 619 402 R5231 | 0.023      |
| Green  | 15               | 126          | 520              | CL-523G | 1SFA 619 402 R5232 | 0.023      |
| Yellow   | 15               | 60           | 590              | CL-523Y | 1SFA 619 402 R5233 | 0.023      |
| Blue   | 15               | 22           | 470              | CL-523L | 1SFA 619 402 R5234 | 0.023      |
| White  | 15               | 88           | x=0.31<br>y=0.32 | CL-523W | 1SFA 619 402 R5235 | 0.023      |

<sup>1)</sup> Care should be taken for DC supply where + and - must be correctly connected.  
(this is marked on the product, X1 (+) and X2 (-)).

**Minimum order quantity: 10 pieces**  
**Packing: 10 pieces/plastic bag, 10 bags/box**

# Pilot devices - Compact range

## Accessories



**Filament bulbs** Ba 9s base Type of current: AC/DC. A lamp changing tool is required for changing bulb.

| Description            | Type                    | Order Code            | Weight, kg            |                     |                    |       |
|------------------------|-------------------------|-----------------------|-----------------------|---------------------|--------------------|-------|
| <b>Rated voltage</b> V | <b>Rated current</b> mA | <b>Rated output</b> W | <b>Service life</b> h | <b>Lumiance</b> mcd |                    |       |
| 6                      | 200                     | 1.2                   | 10 000                | 350                 | <b>5911 086-11</b> | 0.002 |
| 12                     | 100                     | 1.2                   | 10 000                | 230                 | <b>5911 086-12</b> | 0.002 |
| 24                     | 50                      | 1.2                   | 10 000                | 280                 | <b>5911 086-13</b> | 0.002 |
| 30                     | 40                      | 1.2                   | 10 000                | 250                 | <b>5911 086-4</b>  | 0.002 |
| 48                     | 42                      | 2                     | 6 000                 | 500                 | <b>5911 086-5</b>  | 0.002 |
| 60                     | 20                      | 1.2                   | 5 000                 | 190                 | <b>5911 086-14</b> | 0.002 |
| 110                    | 18                      | 2                     | 7 500                 | 250                 | <b>5911 086-7</b>  | 0.002 |
| 130                    | 15                      | 2                     | 7 500                 | 120                 | <b>5911 086-15</b> | 0.002 |

### LEDs

With one diode chip mounted on a Ba 9s base. Choose the same color for the LED and the lamp cap or else use a clear lamp cap.

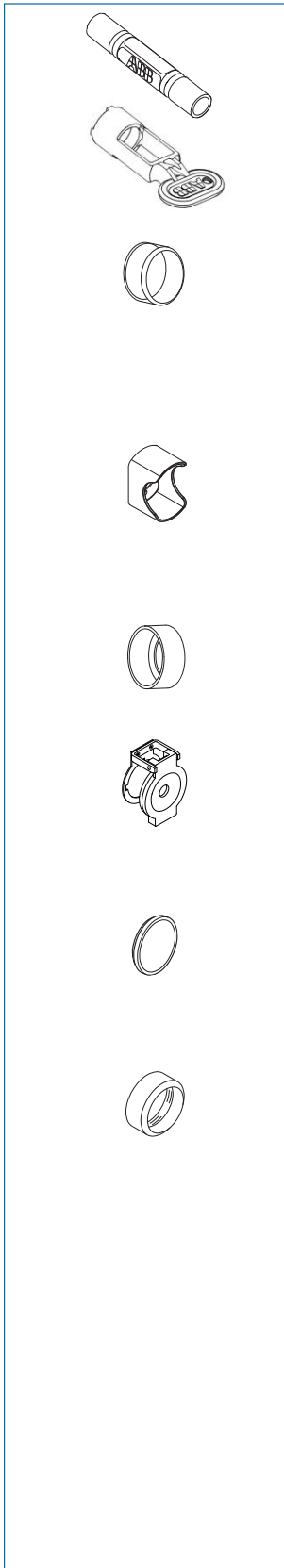
For white light use white LED with clear lamp cap. At DC the lamp base have to be connected to cathode (-) and the bottom contact to anode (+).

| Color   | Rated mA | Wave-current nM  | Lumi-length mcd | nance           | Order Code                | Weight, kg |
|---|----------|------------------|-----------------|-----------------|---------------------------|------------|
| <b>Rated voltage 12 V, DC</b> Service life >50 000 h                      |          |                  |                 |                 |                           |            |
| Red   | 15       | 630              | 250             | <b>KA2-2011</b> | <b>1SFA 616 921 R2011</b> | 0.005      |
| Green   | 15       | 525              | 1000            | <b>KA2-2012</b> | <b>1SFA 616 921 R2012</b> | 0.005      |
| Yellow  | 15       | 592              | 250             | <b>KA2-2013</b> | <b>1SFA 616 921 R2013</b> | 0.005      |
| Blue  | 15       | 470              | 450             | <b>KA2-2014</b> | <b>1SFA 616 921 R2014</b> | 0.005      |
| White   | 15       | x=0.31<br>y=0.32 | 600             | <b>KA2-2015</b> | <b>1SFA 616 921 R2015</b> | 0.005      |
| <b>Rated voltage 24 V, (AC)/DC <sup>1)</sup></b> Service life >50 000 h   |          |                  |                 |                 |                           |            |
| Red   | 15       | 630              | 250             | <b>KA2-2021</b> | <b>1SFA 616 921 R2021</b> | 0.005      |
| Green   | 15       | 525              | 800             | <b>KA2-2022</b> | <b>1SFA 616 921 R2022</b> | 0.005      |
| Yellow  | 15       | 592              | 250             | <b>KA2-2023</b> | <b>1SFA 616 921 R2023</b> | 0.005      |
| Blue  | 15       | 470              | 400             | <b>KA2-2024</b> | <b>1SFA 616 921 R2024</b> | 0.005      |
| White   | 15       | x=0.31<br>y=0.32 | 500             | <b>KA2-2025</b> | <b>1SFA 616 921 R2025</b> | 0.005      |
| <b>Rated voltage 48 V, (AC)/DC <sup>1)</sup></b> Service life >50 000 h   |          |                  |                 |                 |                           |            |
| Red   | 12       | 630              | 200             | <b>KA2-2041</b> | <b>1SFA 616 921 R2041</b> | 0.005      |
| Green   | 12       | 525              | 1700            | <b>KA2-2042</b> | <b>1SFA 616 921 R2042</b> | 0.005      |
| Yellow  | 12       | 592              | 240             | <b>KA2-2043</b> | <b>1SFA 616 921 R2043</b> | 0.005      |
| Blue  | 12       | 470              | 720             | <b>KA2-2044</b> | <b>1SFA 616 921 R2044</b> | 0.005      |
| White   | 12       | x=0.31<br>y=0.32 | 1200            | <b>KA2-2045</b> | <b>1SFA 616 921 R2045</b> | 0.005      |
| <b>Rated voltage 60 V, (AC)/DC <sup>1)</sup></b> Service life >50 000 h   |          |                  |                 |                 |                           |            |
| Red   | 10       | 630              | 160             | <b>KA2-2051</b> | <b>1SFA 616 921 R2051</b> | 0.005      |
| Green   | 10       | 525              | 1400            | <b>KA2-2052</b> | <b>1SFA 616 921 R2052</b> | 0.005      |
| Yellow  | 10       | 592              | 200             | <b>KA2-2053</b> | <b>1SFA 616 921 R2053</b> | 0.005      |
| Blue  | 10       | 470              | 600             | <b>KA2-2054</b> | <b>1SFA 616 921 R2054</b> | 0.005      |
| White   | 10       | x=0.31<br>y=0.32 | 1000            | <b>KA2-2055</b> | <b>1SFA 616 921 R2055</b> | 0.005      |
| <b>Rated voltage 110-130 V, AC <sup>1)</sup></b> Service life 25 000 h    |          |                  |                 |                 |                           |            |
| Red   | 4-6      | 630              | 60-100          | <b>KA2-2131</b> | <b>1SFA 616 921 R2131</b> | 0.005      |
| Green   | 4-6      | 525              | 500-850         | <b>KA2-2132</b> | <b>1SFA 616 921 R2132</b> | 0.005      |
| Yellow  | 4-6      | 592              | 70-120          | <b>KA2-2133</b> | <b>1SFA 616 921 R2133</b> | 0.005      |
| Blue  | 4-6      | 470              | 220-350         | <b>KA2-2134</b> | <b>1SFA 616 921 R2134</b> | 0.005      |
| White   | 4-6      | x=0.31<br>y=0.32 | 350-600         | <b>KA2-2135</b> | <b>1SFA 616 921 R2135</b> | 0.005      |
| <b>Rated voltage 110-130 V, AC/DC <sup>1)</sup></b> Service life 25 000 h |          |                  |                 |                 |                           |            |
| Red   | 4-6      | 630              | 60-100          | <b>KA2-2141</b> | <b>1SFA 616 921 R2141</b> | 0.005      |
| Green   | 4-6      | 525              | 500-850         | <b>KA2-2142</b> | <b>1SFA 616 921 R2142</b> | 0.005      |
| Yellow  | 4-6      | 592              | 70-120          | <b>KA2-2143</b> | <b>1SFA 616 921 R2143</b> | 0.005      |
| Blue  | 4-6      | 470              | 220-350         | <b>KA2-2144</b> | <b>1SFA 616 921 R2144</b> | 0.005      |
| White   | 4-6      | x=0.31<br>y=0.32 | 350-600         | <b>KA2-2145</b> | <b>1SFA 616 921 R2145</b> | 0.005      |
| <b>Rated voltage 230 V, AC <sup>1)</sup></b> Service life 25 000 h        |          |                  |                 |                 |                           |            |
| Red   | 4        | 630              | 60              | <b>KA2-2221</b> | <b>1SFA 616 921 R2221</b> | 0.005      |
| Green   | 4        | 525              | 500             | <b>KA2-2222</b> | <b>1SFA 616 921 R2222</b> | 0.005      |
| Yellow  | 4        | 592              | 70              | <b>KA2-2223</b> | <b>1SFA 616 921 R2223</b> | 0.005      |
| Blue  | 4        | 470              | 220             | <b>KA2-2224</b> | <b>1SFA 616 921 R2224</b> | 0.005      |
| White   | 4        | x=0.31<br>y=0.32 | 350             | <b>KA2-2225</b> | <b>1SFA 616 921 R2225</b> | 0.005      |

<sup>1)</sup> At AC the luminance is decreased with 30 % and there is also a slight flickering.

# Pilot devices - Compact range

## Accessories



### Lamp changing tool

| Description            | Type            | Order Code         | Weight, kg |
|------------------------|-----------------|--------------------|------------|
| For LEDs and for bulbs | <b>KA1-8072</b> | 1SFA 616 920 R8072 | 0.002      |

### Mounting tool

| Description                         | Type            | Order Code         | Weight, kg |
|-------------------------------------|-----------------|--------------------|------------|
| Used for tightening the locking nut | <b>KA1-8015</b> | 1SFA 616 920 R8015 | 0.021      |

### Membrane of silicone

Of transparent, heat and cold resistant silicon rubber. Does not harden at low temperature. Gives IP 67 degree of protection. When membrane is used, remove the gasket.

| For operator with | Type            | Order Code         | Weight, kg |
|-------------------|-----------------|--------------------|------------|
| Flush button      | <b>KA1-8052</b> | 1SFA 616 920 R8052 | 0.002      |
| Extended button   | <b>KA1-8002</b> | 1SFA 616 920 R8002 | 0.002      |

### Emergency stop shroud

For 30 mm Emergency Stop Pushbuttons.

| Color                                      | Type            | Order Code         | Weight, kg |
|--|-----------------|--------------------|------------|
| To prevent inadvertant operation<br>Yellow | <b>KA1-8053</b> | 1SFA 616 920 R8053 | 0.020      |

### Protective ring

| Description  | Type | Order Code          | Weight, kg |
|--|------|---------------------|------------|
| For flush and extended pushbutton<br>To prevent inadvertant operation.<br>Not together with legend plate holder. |      | <b>SK 615 512-1</b> | 0.002      |

### Protective cover

| Description  | Type            | Order Code         | Weight, kg |
|--|-----------------|--------------------|------------|
| For flush button. To prevent inadvertant operation. Not together with legend plate holder. | <b>KA1-8010</b> | 1SFA 616 920 R8010 | 0.008      |

### Button

| Description                             | Type            | Order Code         | Weight/1 pc, kg |
|---|-----------------|--------------------|-----------------|
| Grey, flush (Packing unit 10 pieces)    | <b>KA1-8087</b> | 1SFA 616 920 R8087 | 0.001           |
| Grey, extended (Packing unit 10 pieces) | <b>KA1-8097</b> | 1SFA 616 920 R8097 | 0.001           |

### Bezel

| Description                             | Type            | Order Code         | Weight/1 pc, kg |
|---|-----------------|--------------------|-----------------|
| <b>For pushbutton</b>                   |                 |                    |                 |
| Grey (Packing unit 10 pieces)           | <b>KA1-8079</b> | 1SFA 616 920 R8079 | 0.001           |
| Black (Packing unit 10 pieces)          | <b>KA1-8022</b> | 1SFA 616 920 R8022 | 0.001           |
| Chrome plastic (Packing unit 10 pieces) | <b>KA1-8020</b> | 1SFA 616 920 R8020 | 0.001           |
| Metal (Packing unit 10 pieces)          | <b>KA1-8021</b> | 1SFA 616 920 R8021 | 0.005           |
| <b>For selector switch</b>              |                 |                    |                 |
| Grey (Packing unit 10 pieces)           | <b>KA1-8078</b> | 1SFA 616 920 R8078 | 0.001           |
| Black (Packing unit 10 pieces)          | <b>KA1-8125</b> | 1SFA 616 920 R8125 | 0.001           |
| Chrome plastic (Packing unit 10 pieces) | <b>KA1-8126</b> | 1SFA 616 920 R8126 | 0.001           |
| Metal (Packing unit 10 pieces)          | <b>KA1-8127</b> | 1SFA 616 920 R8127 | 0.005           |

## Pilot devices - Compact range

### Accessories



#### 30 mm adaptors

For use when fitting the 22 mm pilot devices in 30 mm mounting holes. (1.5 – 4 mm panels)

| Description   | Type     | Order Code         | Weight, kg |
|---|----------|--------------------|------------|
| <b>For use with emergency stop push-button</b>                      |          |                    |            |
| Black plastic.  | KA1-8027 | 1SFA 616 920 R8027 | 0.007      |
| Metal.  | KA1-8028 | 1SFA 616 920 R8028 | 0.021      |
| <b>For use with pushbuttons, selector switches and pilot lights</b> |          |                    |            |
| Black plastic.  | KA1-8029 | 1SFA 616 920 R8029 | 0.010      |
| Metal.  | KA1-8030 | 1SFA 616 920 R8030 | 0.035      |
| <b>For flush mounted pushbutton</b>                                 | KA1-8073 | 1SFA 616 920 R8073 | 0.050      |
| <b>For flush mounted selector switches</b>                          | CA1-8075 | 1SFA 619 920 R8075 | 0.046      |

#### Extra key

| Description             | Type | Order Code    | Weight, kg |
|-------------------------|------|---------------|------------|
| Ronis 455 (key code 71) |      | SK 616 021-71 | 0.007      |

# Pilot devices - Compact range

## Technical data



### Approvals

The pushbuttons, selector switches and pilot lights are approved by:  
- National approval agencies: UL and China Compulsory Product Certification

For detail information please contact ABB

### Standards

|                 |  |
|-----------------|--|
| IEC 60947-1     | Low-voltage switchgear and controlgear - Part 1: General rules   |
| IEC 60947-5-1   | Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices                          |
| IEC 60947-5-5   | Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function |
| IEC 60073       | Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators                                     |
| IEC 60529       | Degrees of protection provided by enclosures (IP Code)   |
| EN 60947-1      | Low-voltage switchgear and controlgear - Part 1: General rules   |
| EN 60947-5-1    | Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices                          |
| EN 60947-5-5    | Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function |
| EN 60073        | Basic and safety principles for man-machine interface, marking and identification - Coding principles for indication devices and actuators                             |
| EN 60529        | Degrees of protection provided by enclosures (IP Code)   |
| EN 50013        | Low-voltage switchgear and controlgear for industrial use - Terminal marking and distinctive number for particular control switches                                    |
| UL 508          | Industrial Control Equipment   |
| CSA C22.2 No 14 | Industrial Control Equipment   |

### Degrees of protection

| Pilot device:   | IP   | UL/CSA               |
|---|------|----------------------|
| Compact pushbutton, type <b>CP1, CP2, CP3, CP4</b>                                  | IP66 | 1, 3R, 4, 4X, 12, 13 |
| Compact selector switch, type <b>C2SS, C3SS</b>                                     |      |                      |
| Compact pilot light, type <b>CL</b>   |      |                      |
| Compact emergency stop pushbutton, type <b>CE3T, CE3P, CE4T, CE4P, CE3K1, CE4K1</b> |      |                      |
| <b>Terminals</b>  | IP20 |                      |

### Temperature

|  |               |
|--|---------------|
| Ambient temperature during operation                                 | -25 to +70 °C |
| Exception: All pilot devices with 2 W continuously lit filament bulb | -25 to +40 °C |
| Storage temperature  | -30 to +85 °C |

### Tightening torque

|                  |                          |
|------------------|--------------------------|
| Locking nut, M22 | Min. 2 Nm<br>Max. 2.3 Nm |
|------------------|--------------------------|

### Contacts

| Ratings as per UL, CSA, NEMA | C300   | R300   |
|------------------------------|--------|--------|
| Rated insulation voltage     | 250 V  | 250 V  |
| Rated thermal current        | 2.5 A  | 1 A    |
| Rated operational current    |        |        |
| at 120 V                     | 1.5 A  |        |
| 125 V                        |        | 0.22 A |
| 240 V                        | 0.75 A |        |
| 250 V                        |        | 0.11 A |

### Ratings as per IEC 60947-5-1

|  |       |
|--|-------|
| Rated insulation voltage, $U_i$                                | 300 V |
| Rated thermal current, $I_{th}$                                | 5 A   |
| Rated operational current, $I_e$ , utilisation category AC-15  |       |
| at 120 V   | 1.5 A |
| 240 V  | 1 A   |
| Rated operational current, $I_e$ , utilisation category DC-13, |       |
| at 24 V  | 0.3 A |
| 125 V  | 0.2 A |

### Short circuit protection

|                   |                               |
|-------------------|-------------------------------|
| Max. fuse at 1 kA | 16 A ordinary<br>10 A delayed |
|-------------------|-------------------------------|

### Tightening torque

|                                      |               |
|--------------------------------------|---------------|
| compact pushbutton & selector switch | 0.8 Nm (M3)   |
| compact pilot light                  | 0.9 Nm (M3.5) |
| compact emergency stop pushbutton    | 0.8 Nm (M3)   |

### Terminals

|                           |  |
|---------------------------|--|
| Plus-minus Pozidriv No. 2 |  |
| Compact pushbutton        |  |
| Compact selector switch   |  |
| Compact emergency stop    |  |
| Connectable area          | min. 1 x 0.5 mm <sup>2</sup> /1 x AWG22<br>max. 2 x 1.5 mm <sup>2</sup> /2 x AWG14 |
| Compact pilot light       |  |
| Connectable area          | min. 1 x 0.5 mm <sup>2</sup> /1 x AWG20<br>max. 2 x 2.5 mm <sup>2</sup> /2 x AWG14 |

### Material

#### No ozone depleting substances in the products.

All front parts are made of polycarbonate

| Material         | Characteristics  |
|------------------|--|
| PC Polycarbonate | High impact strength, good outdoor resistance. Can withstand light acid solutions, aliphatic hydrocarbons, paraffin, alcohols, animal and vegetable greases. |
| PA Polyamide     | Can withstand high temperatures, aliphatic, aromatic and chlorinated hydrocarbons, esters, ketone-aldehydes, alcohols and basic solutions.                   |
| PBT              | Can withstand temperature, aliphatic and aromatic hydrocarbons, acids, basic solutions, alcohols, grease and oils  |
| Zinc             | Good corrosion resistance in inland-, sea and industrial atmosphere.   |
| Light-alloy      | Good corrosion resistance in inland-, sea and industrial atmosphere.   |
| Rubber           | Chloroprene<br>Nitrile   |