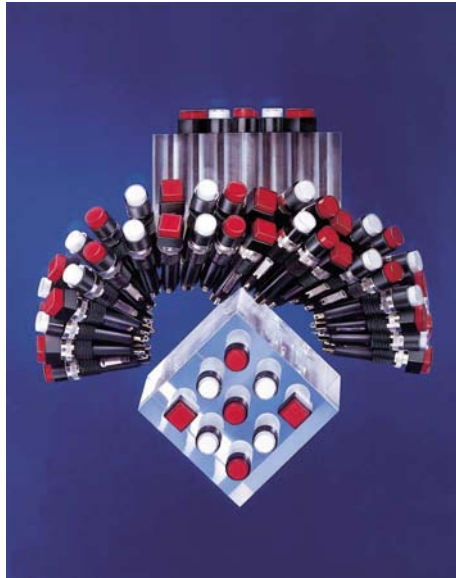




### General data

Illuminable pushbuttons and signal lamps with lamp socket for a mounting hole diameter of 8.1 mm; 42 V, 250 mA max. Please order lamps/LEDs separately.

### Content

**8 mm series, illuminated pushbutton, 42 V/250 mA**

**1 - 4**

8 mm series, illuminated pushbutton, round collar, 42 V/250 mA

1 - 5

8 mm series, illuminated pushbutton, square collar, 42 V/250 mA

1 - 5

**8 mm series, signal lamp**

**1 - 6**

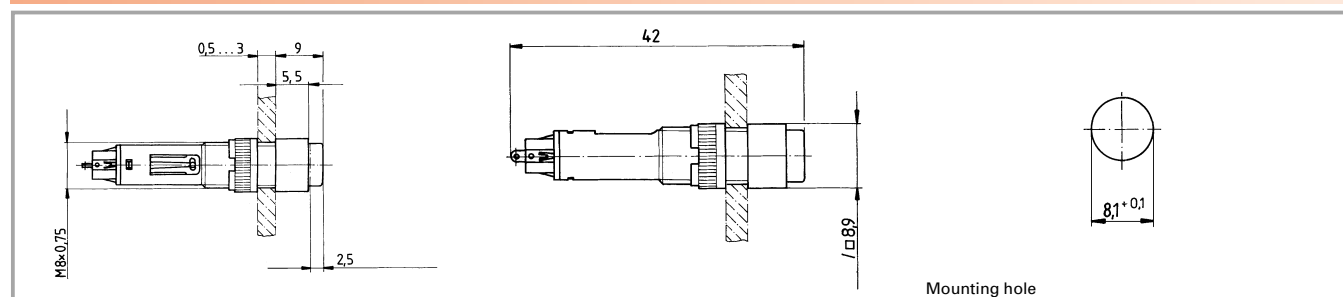
8 mm series, signal lamp, round collar

1 - 7

8 mm series, signal lamp, square collar

1 - 7

## 8 mm series, illuminated pushbutton, 42 V/250 mA



## Technical data

## General information

|                |                 |
|----------------|-----------------|
| Form of lens   | protruding lens |
| Colour of lens | see order block |
| Form of collar | see order block |

## Dimensions

|                    |                 |
|--------------------|-----------------|
| Length of collar   | see order block |
| Diameter of collar | see order block |
| Width of collar    | see order block |
| Overall height     | 9 mm            |
| Mounting depth     | 31 mm           |
| Mounting hole      | 8.1 mm          |

## Mechanical design

|                     |                  |
|---------------------|------------------|
| Mounting            | ring nut         |
| Terminals           | solder terminals |
| Contact system      | 2 plate springs  |
| Contact function    | see order block  |
| Contact arrangement | 1 NO             |
| Contact materials   | Au               |
| Illuminability      | yes              |
| Lamp socket         | Bi-Pin T 1       |

## Mechanical characteristics

|                      |        |
|----------------------|--------|
| Operating force max. | 2.6 N  |
| Operating travel     | 2.7 mm |
| Switching travel NO  | 1 mm   |
| Robustness           | 100 N  |

## Electrical characteristics

|                          |        |
|--------------------------|--------|
| Rated voltage AC/DC max. | 42 V   |
| Rated voltage AC/DC min. | 0.02 V |

|                          |         |
|--------------------------|---------|
| Rated current AC/DC max. | 250 mA  |
| Rated current AC/DC min. | 0.01 mA |
| Contact resistance max.  | 100 mΩ  |
| Bouncing time max.       | 10 ms   |

## Other specifications

|                                                |                                           |
|------------------------------------------------|-------------------------------------------|
| Operating life (operations)                    | 1000000 (momentary),<br>100000 (latching) |
| Degree of protection from front side           | IP40                                      |
| Ambient temp. operating min.                   | -25 °C                                    |
| Ambient temp. operating max. without lamp /LED | +70 °C                                    |
| Ambient temp. operating max. with lamp /LED    | +55 °C                                    |
| Storage temperature min.                       | -40 °C                                    |
| Storage temperature max.                       | +80 °C                                    |
| Resistance to constant environment             | according to<br>IEC 600 68-2-3 and 2-30   |
| Resistance at variable environment             | according to<br>IEC 600 68-2-14 and 2-33  |
| Weight                                         | 2 g                                       |
| Soldering time max.                            | 3 sec.                                    |
| Soldering temperature max.                     | 350 °C                                    |

## Accessories 8 mm series, illuminated pushbutton, 42 V/250 mA

| Description                               | Photo | Order no.                | Page   |
|-------------------------------------------|-------|--------------------------|--------|
| Filament lamp, Bi-Pin T 1 base, 24 - 28 V |       | <b>1.90.180.473/0000</b> | 5 - 5  |
| LED Bi-Pin T 1, red, 3 V                  |       | <b>1.90.691.026/0000</b> | 5 - 17 |
| LED Bi-Pin T 1, green, 3 V                |       | <b>1.90.691.027/0000</b> | 5 - 17 |

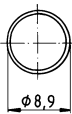
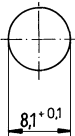
**Accessories 8 mm series, illuminated pushbutton, 42 V/250 mA**

| Description                 | Photo                                                                              | Order no.                | Page   |
|-----------------------------|------------------------------------------------------------------------------------|--------------------------|--------|
| LED Bi-Pin T 1, yellow, 3 V |  | <b>1.90.691.028/0000</b> | 5 - 17 |
| Fixing spanner M 8          |  | <b>5.58.002.027/7705</b> | 5 - 23 |

1

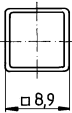
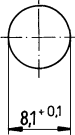
8 mm

**8 mm series, illuminated pushbutton, round collar, 42 V/250 mA**

| <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <br/>           Pict.: with colourless lens         </div> <div style="text-align: center;"> <br/> <math>\phi 8,9</math> </div> <div style="text-align: center;"> <br/> <math>8,1^{+0,1}</math><br/>           Mounting hole         </div> </div> |                  |             |                          |                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------|--------------------------|------------------------------------------------|
| Contact arrangement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Contact function | Lamp socket | Order no. without lens   | Note                                           |
| 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | momentary        | Bi-Pin T 1  | <b>1.15.116.001/0000</b> | Please include the desired lens in your order. |
| 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | latching         | Bi-Pin T 1  | <b>1.15.116.011/0000</b> | Please include the desired lens in your order. |

Technical data see page 1 - 4

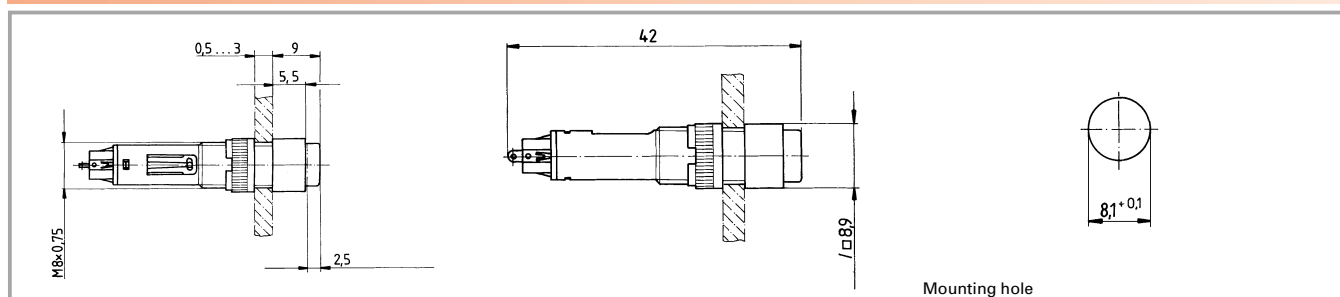
**Lenses:**Lens, transparent colourless: **5.05.510.470/1002**Lens, transparent red: **5.05.510.470/1303**Lens, transparent yellow: **5.05.510.470/1402**Lens, transparent green: **5.05.510.470/1502**
**8 mm series, illuminated pushbutton, square collar, 42 V/250 mA**

| <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <br/>           Pict.: with green lens         </div> <div style="text-align: center;"> <br/> <math>\square 8,9</math> </div> <div style="text-align: center;"> <br/> <math>8,1^{+0,1}</math><br/>           Mounting hole         </div> </div> |                  |             |                          |                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------|--------------------------|------------------------------------------------|
| Contact arrangement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Contact function | Lamp socket | Order no. without lens   | Note                                           |
| 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | momentary        | Bi-Pin T 1  | <b>1.15.116.021/0000</b> | Please include the desired lens in your order. |
| 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | latching         | Bi-Pin T 1  | <b>1.15.116.031/0000</b> | Please include the desired lens in your order. |

Technical data see page 1 - 4

**Lenses:**Lens, transparent colourless: **5.05.510.471/1002**Lens, transparent red: **5.05.510.471/1303**Lens, transparent yellow: **5.05.510.471/1402**Lens, transparent green: **5.05.510.471/1502**

## 8 mm series, signal lamp



## Technical data

## General information

|                |                 |
|----------------|-----------------|
| Form of lens   | protruding lens |
| Colour of lens | see order block |
| Form of collar | see order block |

## Dimensions

|                    |                 |
|--------------------|-----------------|
| Length of collar   | 8.9 mm          |
| Width of collar    | 8.9 mm          |
| Diameter of collar | see order block |
| Overall height     | 9 mm            |
| Mounting depth     | 31 mm           |
| Mounting hole      | 8.1 mm          |

## Mechanical design

|             |                     |
|-------------|---------------------|
| Mounting    | ring nut            |
| Terminals   | solder terminals    |
| Lamp socket | Bi-Pin T 1          |
| Lamp        | filament lamp / LED |

## Electrical characteristics

|                    |       |
|--------------------|-------|
| Voltage limit max. | 24 V  |
| Power limit max.   | 0.4 W |

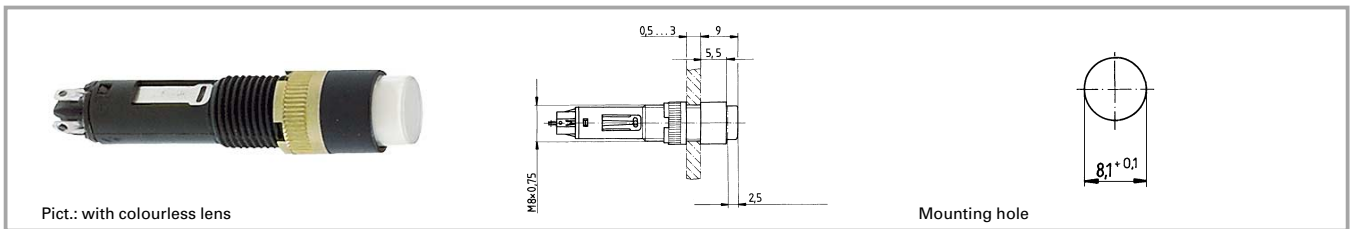
## Other specifications

|                                      |                                       |
|--------------------------------------|---------------------------------------|
| Degree of protection from front side | IP40                                  |
| Weight                               | 2 g                                   |
| Ambient temp. operating min.         | -25 °C                                |
| Ambient temp. operating max.         | +55 °C                                |
| Storage temperature min.             | -40 °C                                |
| Storage temperature max.             | +80 °C                                |
| Resistance to constant environment   | according to IEC 600 68-2-3 and 2-30  |
| Resistance at variable environment   | according to IEC 600 68-2-14 and 2-33 |
| Soldering time max.                  | 3 sec.                                |
| Soldering temperature max.           | 350 °C                                |

## Accessories 8 mm series, signal lamp

| Description                               | Photo | Order no.                | Page   |
|-------------------------------------------|-------|--------------------------|--------|
| Filament lamp, Bi-Pin T 1 base, 24 - 28 V |       | <b>1.90.180.473/0000</b> | 5 - 5  |
| LED Bi-Pin T 1, red, 3 V                  |       | <b>1.90.691.026/0000</b> | 5 - 17 |
| LED Bi-Pin T 1, green, 3 V                |       | <b>1.90.691.027/0000</b> | 5 - 17 |
| LED Bi-Pin T 1, yellow, 3 V               |       | <b>1.90.691.028/0000</b> | 5 - 17 |
| Fixing spanner M 8                        |       | <b>5.58.002.027/7705</b> | 5 - 23 |

8 mm series, signal lamp, round collar



| Voltage limit max. | Power limit max. | Lamp socket | Colour of lens | Order no. without lens | Note                                           |
|--------------------|------------------|-------------|----------------|------------------------|------------------------------------------------|
| 24 V               | 0.4 W            | Bi-Pin T 1  |                | 1.65.120.001/0000      | Please include the desired lens in your order. |

Technical data see page 1 - 6

**Lenses:**

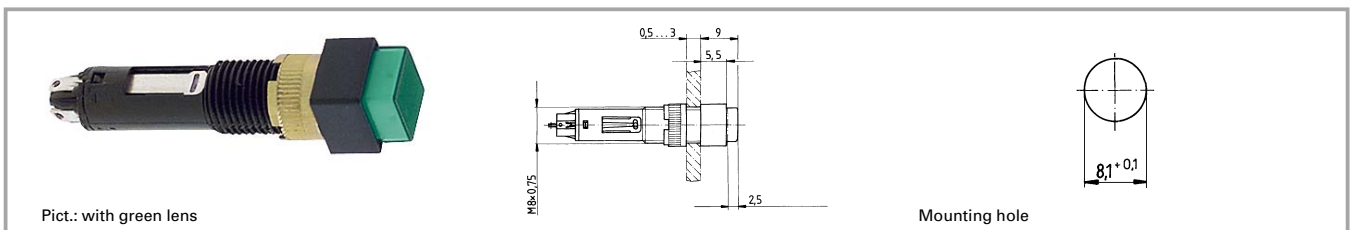
Lens, transparent colourless: 5.05.510.359/1002

Lens, transparent red: 5.05.510.359/1303

Lens, transparent yellow: 5.05.510.359/1402

Lens, transparent green: 5.05.510.359/1502

8 mm series, signal lamp, square collar



| Voltage limit max. | Power limit max. | Lamp socket | Colour of lens | Order no. without lens | Note                                           |
|--------------------|------------------|-------------|----------------|------------------------|------------------------------------------------|
| 24 V               | 0.4 W            | Bi-Pin T 1  |                | 1.65.120.011/0000      | Please include the desired lens in your order. |

Technical data see page 1 - 6

**Lenses:**

Lens, transparent colourless: 5.05.510.360/1002

Lens, transparent red: 5.05.510.360/1303

Lens, transparent yellow: 5.05.510.360/1402

Lens, transparent green: 5.05.510.360/1502