



## Model Number

NCB1,5-12GM60-E2-D-V1

## Features

- 1.5 mm flush
- Operating pressure 500 bar, peak pressure 1000 bar
- For applications in hydraulic cylinder

## Accessories

### V1-G

Female connector, M12, 4-pin, field attachable

### V1-W

Female connector, M12, 4-pin, field attachable

### V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

### V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

## Technical Data

### General specifications

|                            |       |        |
|----------------------------|-------|--------|
| Switching element function | PNP   | NO     |
| Rated operating distance   | $s_n$ | 1.5 mm |
| Installation               |       | flush  |
| Output polarity            |       | DC     |

### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 10 ... 30 V DC             |
| Switching frequency         | $f$   | 0 ... 600 Hz               |
| Hysteresis                  | $H$   | typ. 8 %                   |
| Reverse polarity protection |       | reverse polarity protected |
| Short-circuit protection    |       | pulsing                    |
| Voltage drop                | $U_d$ | $\leq 2$ V                 |
| Operating current           | $I_L$ | 0 ... 200 mA               |
| No-load supply current      | $I_0$ | $\leq 10$ mA               |

### Limit data

|                    |                      |
|--------------------|----------------------|
| Operating pressure | 500 bar (7252 psi)   |
| Peak pressure      | 1000 bar (14504 psi) |

### Functional safety related parameters

|                          |       |
|--------------------------|-------|
| MTTF <sub>d</sub>        | 728 a |
| Mission Time ( $T_M$ )   | 20 a  |
| Diagnostic Coverage (DC) | 0 %   |

### Ambient conditions

|                     |                                 |
|---------------------|---------------------------------|
| Ambient temperature | -25 ... 100 °C (-13 ... 212 °F) |
|---------------------|---------------------------------|

### Mechanical specifications

|                      |                                   |
|----------------------|-----------------------------------|
| Connection type      | Connector M12 x 1, 4-pin          |
| Housing material     | Stainless steel 1.4305 / AISI 303 |
| Sensing face         | Ceramic                           |
| Degree of protection | IP68                              |
| Mass                 | 31 g                              |

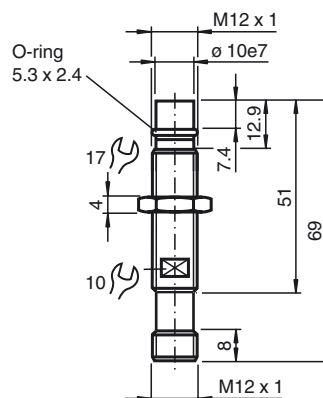
### Compliance with standards and directives

|                     |                                         |
|---------------------|-----------------------------------------|
| Standard conformity |                                         |
| Standards           | EN 60947-5-2:2007<br>IEC 60947-5-2:2007 |

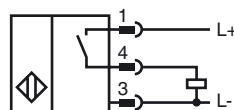
### Approvals and certificates

|              |                                                                    |
|--------------|--------------------------------------------------------------------|
| UL approval  | cULus Listed, General Purpose                                      |
| CSA approval | cCSAus Listed, General Purpose                                     |
| CCC approval | CCC approval / marking not required for products rated $\leq 36$ V |

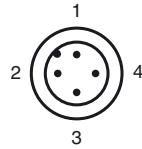
## Dimensions



## Electrical Connection

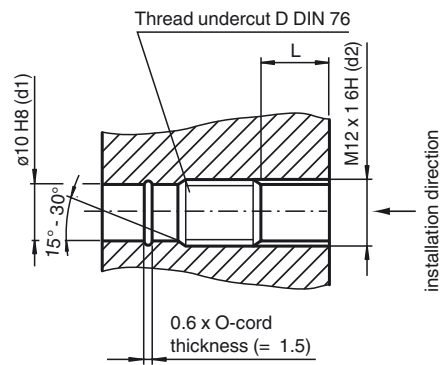


## Pinout



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |



L: recommended installation depth:  $L \geq 0.8 \times d2$