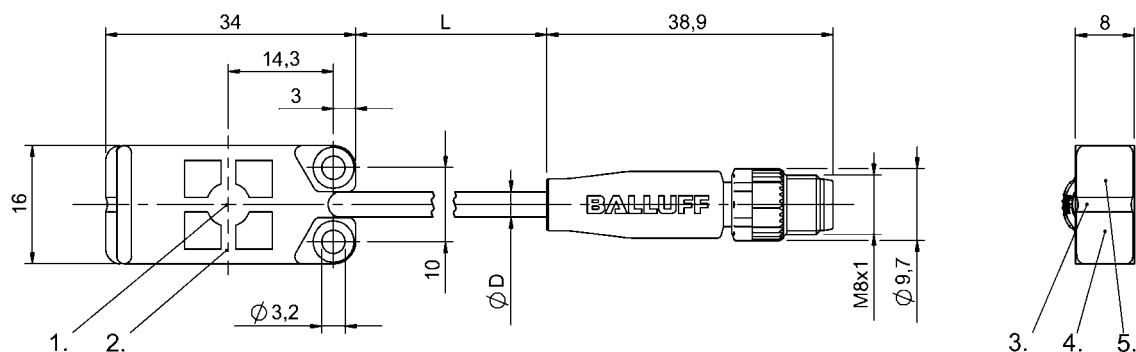




1) Sensing surface, 2) Housing, 3) Cover, 4) Power indicator green, 5) Function indicator yellow



## Basic features

|                            |                                                                |
|----------------------------|----------------------------------------------------------------|
| <b>Additional features</b> | Electrically conductive media<br>Foam and residue compensation |
| <b>Approval/Conformity</b> | cULus<br>CE<br>UKCA<br>WEEE                                    |
| <b>Basic standard</b>      | IEC 60947-5-2                                                  |
| <b>Scope of delivery</b>   | Holder<br>Installation guide                                   |
| <b>Sensitivity</b>         | teachable depending on media                                   |
| <b>Series</b>              | R08                                                            |

## Display/Operation

|                    |           |
|--------------------|-----------|
| Function indicator | yes       |
| Power indicator    | yes       |
| Setting            | Teachable |

## Electrical connection

|                                   |                      |
|-----------------------------------|----------------------|
| Cable diameter D                  | 3.4 mm               |
| Cable length L                    | 0.3 m                |
| Conductor cross-section           | 0.14 mm <sup>2</sup> |
| Connection                        | M8x1-Male, 4-pin     |
| Number of conductors              | 4                    |
| Polarity reversal protected       | yes                  |
| Protection against device mix-ups | yes                  |
| Short-circuit protection          | yes                  |

## Electrical data

|                                           |              |
|-------------------------------------------|--------------|
| Load capacitance max. at Ue               | 0.33 $\mu$ F |
| No-load current I <sub>0</sub> max. at Ue | 13.5 mA      |
| Operating voltage U <sub>b</sub>          | 12...30 VDC  |
| Rated insulation voltage U <sub>i</sub>   | 75 V DC      |
| Rated operating current I <sub>e</sub>    | 50 mA        |
| Rated operating voltage U <sub>e</sub> DC | 24 V         |
| Ready delay t <sub>v</sub> max.           | 200 ms       |
| Residual current I <sub>r</sub> max.      | 10 $\mu$ A   |
| Ripple max. (% of U <sub>e</sub> )        | 10 %         |
| Switching frequency                       | 10 Hz        |
| Utilization category                      | DC -13       |
| Voltage drop static max.                  | 1.5 V        |

## Environmental conditions

|                     |             |
|---------------------|-------------|
| Ambient temperature | -25...70 °C |
| Contamination scale | 3           |
| IP rating           | IP67        |

## Functional safety

MTTF (40 °C) 98 a

## Interface

Switching output PNP normally open (NO)

Capacitive Sensors  
BCS R08RRE-PSMFHC-EP00,3-GS75  
Order Code: BCS012Z



Material

|                          |     |
|--------------------------|-----|
| Housing material         | PP  |
| Material jacket          | PUR |
| Material sensing surface | PP  |

Mechanical data

|                   |                                 |
|-------------------|---------------------------------|
| Dimension         | 34 x 16 x 8 mm                  |
| Installation      | flush with container outer wall |
| Size              | Block style                     |
| Tightening torque | 0.2 Nm                          |

Remarks

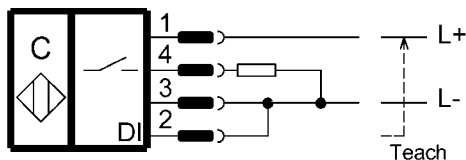
Note for using in standard applications with aqueous media: The Smart Level sensors are factory adjusted for standard applications. With this setting the Smart Level sensors can be used without further adjustment for detecting aqueous media through glass or plastic walls. The factory setting can automatically mask glass or plastic walls (approx. 0.5 mm to 6 mm) and compensate for foam, moisture and dirt buildup inside and outside the container. Special applications: The Smart Level sensors can also be used with aqueous media in previously unsolvable and critical applications such as through glass or plastic walls thicker than 6 mm. Here the user can change the factory setting.  
For full calibration connect input DI to L+ for 2...7 seconds. For empty calibration connect to L+ for 7..12 seconds.  
Input DI can be used for teaching the switching point. In normal operation input DI should be connected continuously to L-.  
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector Drawings



Wiring Diagrams



Capacitive Sensors

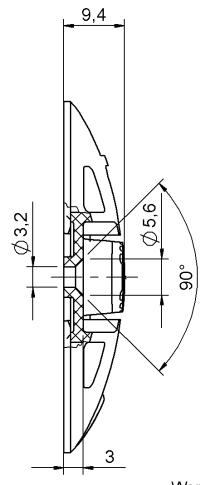
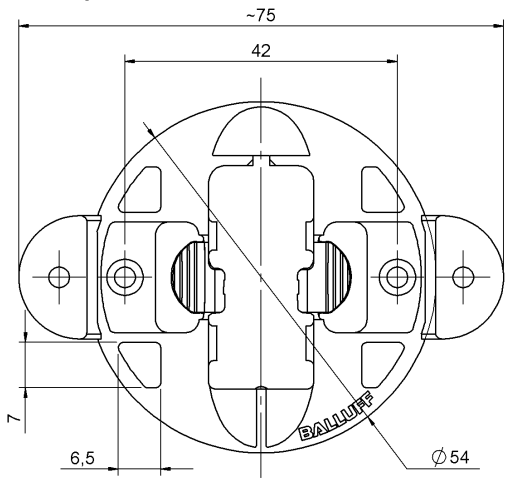
BCS R08RRE-PSMFHC-EP00,3-GS75

Order Code: BCS012Z

**BALLUFF**

Help Views

**Zubehör - Halter**  
Accessories - Mounting frame



Werkstoff Halter: PP  
Material mounting frame: PP