

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



## Basic features

<b>Additional features</b>	Electrically conductive media Foam and residue compensation
<b>Approval/Conformity</b>	cULus CE UKCA WEEE
<b>Basic standard</b>	IEC 60947-5-2
<b>Scope of delivery</b>	Holder 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>o</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 closed (NC)

Material		Mechanical data	
Housing material	PP	Dimension	34 x 16 x 8 mm
Material jacket	PUR	Installation	flush with container outer wall
Material sensing surface	PP	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-.

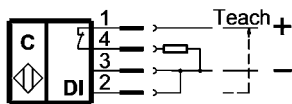
For more information about MTTF and B10d see MTTF / B10d Certificate

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

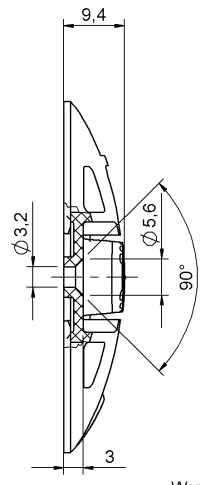
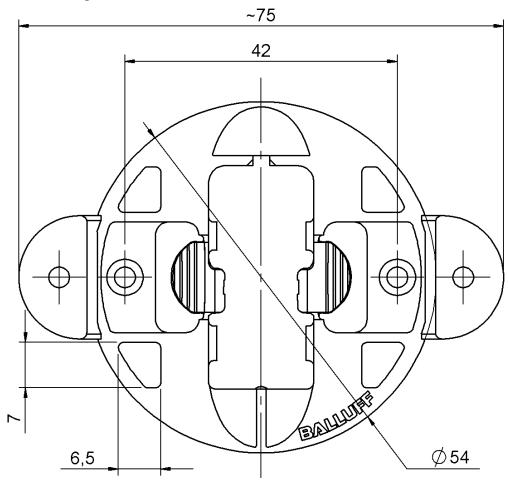
BCS R08RRE-POMFHC-EP00,3-GS75

Order Code: BCS0130

**BALLUFF**

Help Views

**Zubehör - Halter**  
Accessories - Mounting frame



Werkstoff Halter: PP  
Material mounting frame: PP