

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 IO-Link 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

### Electrical data

<b>Load capacitance max. at Ue</b>	0.001 µF
<b>No-load current I<sub>o</sub> max. at Ue</b>	13.5 mA
<b>Operating voltage U<sub>b</sub></b>	18...30 VDC
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating current I<sub>e</sub></b>	50 mA
<b>Rated operating voltage U<sub>e</sub> DC</b>	24 V
<b>Ready delay t<sub>v</sub> max.</b>	200 ms
<b>Residual current I<sub>r</sub> max.</b>	10 µA
<b>Ripple max. (% of U<sub>e</sub>)</b>	10 %
<b>Switching frequency</b>	10 Hz
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	1.5 V

### Display/Operation

<b>Function indicator</b>	yes
<b>Power indicator</b>	yes
<b>Setting</b>	Teachable

### Environmental conditions

<b>Ambient temperature</b>	-25...70 °C
<b>Contamination scale</b>	3
<b>IP rating</b>	IP67

### Electrical connection

<b>Cable diameter D</b>	3.40 mm
<b>Cable length L</b>	0.3 m
<b>Conductor cross-section</b>	0.14 mm <sup>2</sup>
<b>Connection</b>	M12x1-Male, 4-pin, A-coded
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	yes
<b>Short-circuit protection</b>	yes

### Functional safety

<b>MTTF (40 °C)</b>	98 a
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Capacitive Sensors  
**BCS R08RRE-PIMFHC-EP00,3-GS04**  
**Order Code: BCS012P**



**IO-Link**

<b>IO-Link Profil IDs</b>	0x0001 SSP0
<b>IO-Link function classes</b>	0x8000 Device Identification 0x8001 Binary Data Channel 0x8002 Process Data Variables 0x8003 Device Diagnosis 0x8004 Teach Commands
<b>Supported IO-Link Profiles</b>	Legacy Smart Sensor Profile

**Interface**

<b>Cycle time min.</b>	5 ms
<b>Interface</b>	IO-Link 1.1
<b>Process data OUT</b>	2 bytes
<b>Switching output</b>	PNP normally open (NO)

**Material**

<b>Cover material</b>	PP
<b>Housing material</b>	PP
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PP

**Mechanical data**

<b>Dimension</b>	34 x 16 x 8 mm
<b>Installation</b>	flush with container outer wall
<b>Size</b>	Block style
<b>Tightening torque</b>	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-.

Switching output- and function programmable using IO-Link.

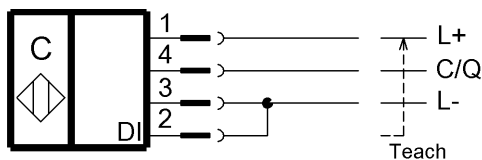
For more information about MTTF and B10d see MTTF / B10d Certificate

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**

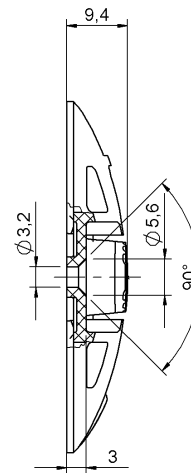
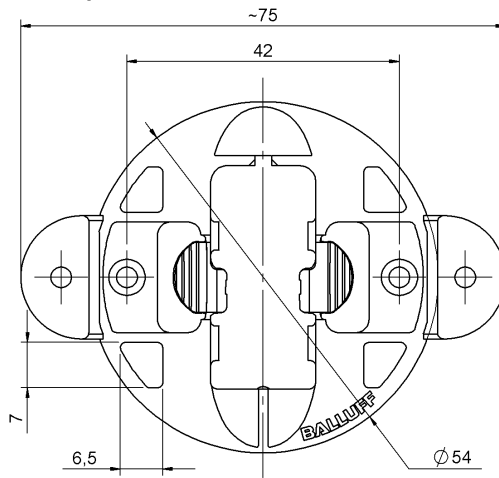


**Wiring Diagrams**



## Help Views

Zubehör - Halter  
Accessories - Mounting frame



Werkstoff Halter: PP  
Material mounting frame: PP