



1) Sensing surface, 2) Housing, 3) Cover, 4) LED function indicator



### Basic features

<b>Additional features</b>	Electrically conductive media Foam and residue compensation
<b>Approval/Conformity</b>	CE IO-Link EAC WEEE cULus LISTED
<b>Basic standard</b>	IEC 60947-5-2
<b>Scope of delivery</b>	Installation guide
<b>Sensitivity</b>	teachable depending on media
<b>Series</b>	S04

### Display/Operation

<b>Function indicator</b>	yes
<b>Power indicator</b>	no
<b>Setting</b>	Teachable

### Electrical connection

<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

### Electrical data

<b>Load capacitance max. at Ue</b>	0.001 µF
<b>No-load current I<sub>o</sub> max. at Ue</b>	15.0 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>	5 Hz
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	2 V

### Environmental conditions

<b>Ambient temperature</b>	-40...85 °C
<b>Contamination scale</b>	3
<b>IP rating</b>	IP68, IP69K at connector exit
<b>Media temperature max.</b>	105 °C

### Functional safety

<b>MTTF (40 °C)</b>	94 a
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Capacitive Sensors  
**BCS S04K501-PICFNG-S04G-T50**  
**Order Code: BCS011E**



**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>	20 ms
<b>IO-Link version</b>	1.1
<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>	1.4404 stainless steel
<b>Housing material</b>	1.4404 stainless steel
<b>Material sensing surface</b>	PEEK

**Mechanical data**

<b>Dimension</b>	Ø 30 x 96 mm
<b>Installation</b>	non-flush
<b>Pressure rating max.</b>	16 bar
<b>Size</b>	D30.0
<b>Thread (A)</b>	G 1/2"
<b>Tightening torque</b>	20...25 Nm

**Remarks**

Input DI can be used for teaching the switching point. In normal operation input DI should be connected continuously to L-.

Suitable for all media except aggressive oils

Switching output- and function programmable using IO-Link.

For full calibration connect input DI to L+ for 2...7 seconds. For empty calibration connect to L+ for 7..12 seconds.

We explicitly point out that the product is not suitable for food contact and hygienic use

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**

