



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



Basic features

Additional features	Electrically conductive media Foam and residue compensation CIP/SIP capable
Application	Hygienic applications
Approval/Conformity	CE IO-Link EAC WEEE cULus LISTED designed according to EHEDG specifications FDA compliant
Basic standard	IEC 60947-5-2
Scope of delivery	Installation guide
Sensitivity	teachable depending on media
Series	S04

Display/Operation

Function indicator	yes
Power indicator	no
Setting	Teachable

Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.001 µF
No-load current I₀ max. at Ue	15.0 mA
Operating voltage U_b	18...30 VDC
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	50 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	200 ms
Residual current I_r max.	10 µA
Ripple max. (% of U_e)	10 %
Switching frequency	5 Hz
Utilization category	DC -13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-40...85 °C
Autoclave compatible	135 °C, 1 h
Contamination scale	3
IP rating	IP68, IP69K at connector exit
Media temperature max.	105 °C
Storage temperature	-25...80 °C

Functional safety

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



IO-Link

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

Material

Cover material	Stainless steel (1.4404)
Housing material	Stainless steel (1.4404)
Material sensing surface	PEEK

Mechanical data

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

Output/Interface

Cycle time min.	20 ms
IO-Link version	1.1
Interface	IO-Link 1.1
Process data OUT	2 bytes
Switching output	PNP normally open (NO)

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.
 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