

1) Optical axis, 2) Operating voltage, 3) Output function normally open



Basic features

Approval/Conformity	Ecolab CE WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Fork sensor
Series	F
Style	Fork Straight connection

Electrical connection

Cable diameter D	4.20 mm
Cable length L	0.25 m
Connection	Cable with connector, M12x1- Male, 4-pin, 0.25 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Display/Operation

Display	Output function- LED yellow LED green: Power
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Electrical data

Load capacitance max. at Ue	0.5 µF
No-load current I _o max. at Ue	35 mA
Operating voltage U _b	10...30 VDC
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	200 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	200 ms
Residual current I _r max.	50 µA
Ripple max. (% of U _e)	10 %
Switching frequency	3000 Hz
Turn-off delay t _{off} max.	0.167 ms
Turn-on delay t _{on} max.	0.167 ms
Utilization category	DC -13
Voltage drop U _d max. at I _e	3 V

Environmental conditions

Ambient temperature	-10...60 °C
EN 60068-2-27, Shock	Half-sinus, 100 gn, 2 ms, 3x8000 Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Protection degree	IP67/IP69K

Material

Housing material	Stainless steel (1.4404)
Material jacket	PUR
Material sensing surface	PMMA

Remarks

Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.
 For additional information, refer to user's guide.
 Order accessories separately.
 The sensor is functional again after the overload has been eliminated.

Mechanical data

Dimension	12 x 115 x 86 mm
Fork opening	80 mm
Mounting	Screw M4

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light spot size	Ø 1.75 mm Light exit
Light type	LED, red light
Principle of optical operation	Fork sensor
Smallest part typ.	1.00 mm
Switching function, optical	dark-on/light-on
Wave length	660 nm

Output/Interface

Switching output	2x PNP normally open/normally closed (NO/NC)
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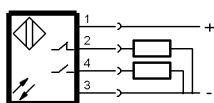
Range/Distance

Hysteresis H max.	0.05 mm
Repeat accuracy lateral max.	25 µm

Connector Drawings



Wiring Diagrams



Opto Symbols

