

1) Q1 active / error, 2) Q1: recvr., light/dark, 3) Q2 active / error, 4) Q2: recvr., light/dark, 5) Pneumatics connection PK-3



Basic features

Additional features	Contamination compensation to up to 10% loss in intensity.
Approval/Conformity	CE WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Fork sensor
Series	C
Style	Fork Straight connection

Display/Operation

Adjuster	Key (2x)
Display	Output 1 active - LED yellow Output 2 active - LED yellow Error - 2 x LED yellow, flashing
Setting	Sensitivity Light-on/dark-on

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	2.2 μ F
No-load current I_o max. at Ue	30 mA
Operating voltage U_b	18...30 VDC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	100 ms
Ripple max. (% of U_e)	10 %
Switching frequency	500 Hz
Turn-off delay t_{off} max.	1 ms
Turn-on delay t_{on} max.	1 ms
Utilization category	DC -13
Voltage drop U_d max. at I_e	1 V

Environmental conditions

Ambient temperature	-5...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Protection degree	IP67

Material

Housing material	Aluminum, Anodized
Material sensing surface	PMMA
Surface protection	Anodized

Mechanical data

Dimension	18 x 80 x 93.5 mm
Fork opening	30 mm
Mounting	Screw M5

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light beams, number	10
Light spot size	3 x 28 mm Light exit
Light type	LED, red light
Principle of optical operation	Through-beam sensor
Special optical feature	Light array
Switching function, optical	dark-on/light-on
Wave length	633 nm

Output/Interface

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

Active length AL 1	28 mm
Hysteresis H max.	0.4 mm
Repeat accuracy lateral max.	150 µm
Resolution	≤ 0.08 mm

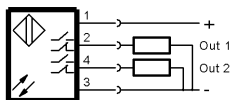
Remarks

The sensor is functional again after the overload has been eliminated.
 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.
 Do not press key using a pointed tool.

Connector Drawings



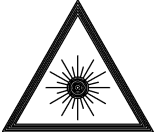
Wiring Diagrams



Opto Symbols



Warning Symbols



LED light– DO NOT LOOK INTO THE BEAM!

Exempt Group per IEC 62471:2006-07