

1) Function indicator, 2) Optical axis, 3) Sn



Basic features

Application	Object detection
Approval/Conformity	CE WEEE EAC
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	R040M
Style	Connection 90° Square

Electrical data

No-load current I_0 max. at U_e	15 mA
Operating voltage U_b	10...30 VDC
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Switching frequency	500 Hz
Turn-off delay t_{off} max.	1.0 ms
Turn-on delay t_{on} max.	1.0 ms
Voltage drop U_d max. at I_e	2.5 V

Display/Operation

Adjuster	1-turn potentiometer
Display	Output function - LED red Limit range - LED red, flashing
Setting	Rated switching distance (Sn)

Environmental conditions

Ambient temperature	-10...55 °C
IP rating	IP65

Electrical connection

Connection	Connector, M8x1-Male, 3-pin
Contact, surface protection	Gold plated
Electrical version	3-wire
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Material

Housing material	Brass, nickel plated
Housing material, surface protection	nickel plated
Material sensing surface	PMMA

Mechanical data

Dimension	59 x 7 x 8 mm
Mounting	Screw M3

Photoelectric Sensors
BOS R040M-PS-RD10-S49
Order Code: BOS01W1

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Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light type	LED, red light
Principle of optical operation	Diffuse sensor, energetic
Switching function, optical	Light-on

Output/Interface

Switching output	PNP normally open (NO)
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Range/Distance

Range	0...50 mm
Rated operating distance S_n	50 mm Adjustable

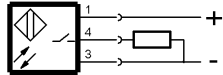
Remarks

Reference object (target): gray card, 100 x 100, 90 % remission, axial approach.

Connector Drawings



Wiring Diagrams



Opto Symbols

