

1) Mode settings, 2) Optical axis receiver, 3) Optical axis emitter, 4) Power indicator, 5) stability, 6) Sensitivity



Basic features

Approval/Conformity	cULus CE UKCA WEEE
Principle of operation	Photoelectric sensor
Series	R090K
Style	Square Connection 45°

Electrical connection

Cable diameter D	3.50 mm
Cable length L	2 m
Conductor cross-section	0.20 mm ²
Connection	Cable, 2.00 m, PVC
Number of conductors	3
Polarity reversal protected	yes
Short-circuit protection	yes

Display/Operation

Adjuster	Potentiometer 270° Rotary switch 2 positions
Display	Output function- LED yellow Stability - LED green
Setting	Sensitivity (Sn) Light-on/dark-on

Electrical data

No-load current I _{o max.} at U _e	20 mA
Operating voltage U _b	10...30 VDC
Rated operating current I _e	100 mA
Rated operating voltage U _{e DC}	24 V
Ready delay t _{v max.}	300 ms
Ripple max. (% of U _e)	10 %
Switching frequency	1000 Hz
Turn-off delay t _{off max.}	0.5 ms
Turn-on delay t _{on max.}	0.5 ms
Voltage drop U _{d max.} at I _e	2 V

Environmental conditions

Ambient temperature	-30...55 °C
IP rating	IP67

Functional safety

MTTF (40 °C)	90 a
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Interface

Switching output	PNP normally open/normally closed (NO/NC)
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Material

Housing material	PC PBT
Material jacket	PVC
Material sensing surface	PMMA

Mechanical data

Dimension	10.7 x 32.7 x 19.5 mm
Mounting part	Screw M3
Tightening torque max.	0.5 Nm

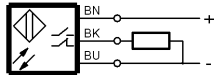
Optical features

Ambient light max.	10000 Lux
Beam characteristic	Divergent
Light type	LED infrared
Principle of optical operation	Diffuse sensor, energetic
Switching function, optical	dark-on/light-on
Wave length	880 nm

Range/Distance

Range	0...100 mm
Rated operating distance S_n	100 mm

Wiring Diagrams



Opto Symbols

