

1) LED (Status), 2) LED (Power)



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Principle of operation	Photoelectric sensor
Series	R030K
Style	Square Optics 90°

Display/Operation

Adjuster	no
Display	Output function - LED orange supply voltage - LED green Stability - LED green

Electrical connection

Cable diameter D	2.6 mm
Cable length L	2 m
Connection	Cable, 2.00 m, PVC
Number of conductors	3
Polarity reversal protected	yes

Electrical data

No-load current I_0 max. at U_e	10 mA
Operating voltage U_b	10...30 VDC
Rated operating current I_e	50 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	2 ms
Ripple max. (% of U_e)	10 %
Switching frequency	800 Hz
Turn-off delay t_{off} max.	0.25 ms
Turn-on delay t_{on} max.	0.25 ms
Voltage drop U_d max. at I_e	2 V

Environmental conditions

Ambient temperature	-25...55 °C
EN 60068-2-27, Shock	500m/s ² X,Y,Z, 3x
EN 60068-2-6, Vibration	10 ... 55Hz, double amplitude 1.5mm,X,Y,Z, 2h
IP rating	IP67
Storage temperature	-30...70 °C

Functional safety

MTTF (40 °C)	104 a
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Interface

Switching output	PNP normally open (NO)
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Material

Housing material	PBT & ABS
Material jacket	PVC
Material sensing surface	PMMA

Mechanical data

Dimension	14 x 4.2 x 20.5 mm
Mounting part	Diameter 2.2 mm
Weight	10 g

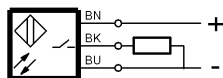
Optical features

Ambient light	Sunlight: 10,000 lux, incandescent lamp: 3,000 lux
Beam characteristic	Focus, typical at 15 mm
Light spot size	4 x 4 mm
Light type	LED, red light
Principle of optical operation	Diffuse sensor, triangulation
Smallest part typ.	0.2 mm
Special optical feature	Background suppression
Wave length	630 nm

Range/Distance

Range	3...30 mm
Rated operating distance Sn	30 mm
Repeat accuracy	0.1 mm

Wiring Diagrams (Schematic)



Opto Symbols

