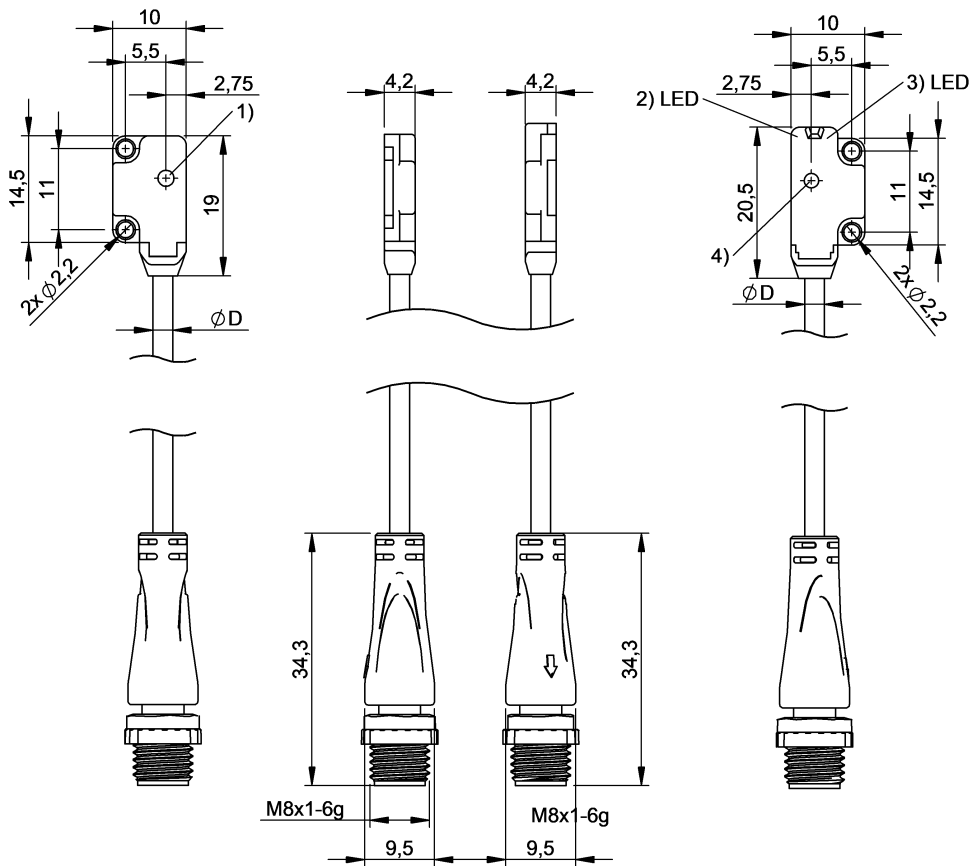




1) Emitter, 2) LED (Status), 3) LED (Power), 4) Receiver



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Principle of operation	Photoelectric sensor
Series	R030K
Style	Square Straight optics

Display/Operation

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

Electrical connection

Cable diameter D	2.70 mm
Cable length L	0.2 m
Connection	Cable with connector, M8x1-Male, 4-pin, 0.20 m, TPU
Polarity reversal protected	yes

Electrical data

No-load current I_o 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.	22 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.	0.4 ms
Voltage drop U_d max. at I_e	2 V

Photoelectric Sensors
BOS R030K-PS-RX10-VC-00,2-S75
Order Code: BOS02HR

BALLUFF

Environmental conditions

Ambient temperature	-25...55 °C
EN 60068-2-27, Shock	500m/s² 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)	66 a
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Interface

Switching output	PNP normally open (NO)
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Material

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

Remarks

Weight: transmitter/receiver: 7.5 g each
Length: transmitter 19 mm, receiver 20.5 mm
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Mechanical data

Mounting part	Diameter 2.2 mm
Weight	15 g

Optical features

Ambient light	Sunlight: 10,000 lux, incandescent lamp: 3,000 lux
Beam characteristic	Divergent
Light spot size	336 x 336 mm
Light type	LED, red light
Principle of optical operation	Through-beam sensor (pair)
Smallest part typ.	2.0 mm
Wave length	630 nm

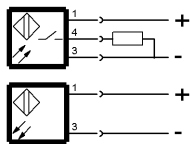
Range/Distance

Range	0...1000 mm
Rated operating distance Sn	1000 mm
Repeat accuracy	0.05 mm

Connector Drawings



Wiring Diagrams (Schematic)



Opto Symbols

