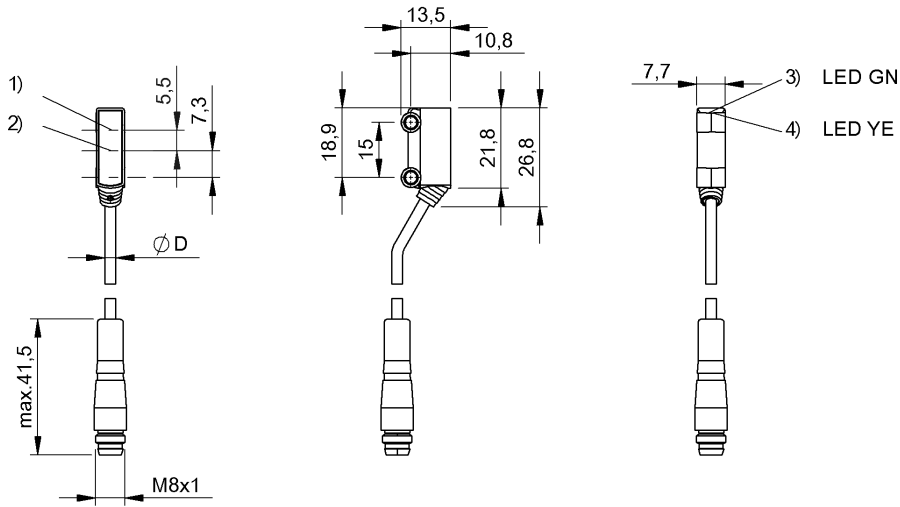


## BOS R020K-PS-RF11-00,2-S49 BOS020M



1) Optical axis receiver 2) Optical axis emitter 3) Operating voltage 4) Light reception



### Electrical connection

Cable diameter D	2.40 mm
Cable length	0.2 m
Connection	M8x1-Connector, 3-pole
Connection type	Cable with connector, 0.20 m, PVC
Polarity reversal protected	yes
Short-circuit protection	yes

### Electrical data

MTTF (40 °C)	3487 a
No-load current I <sub>o</sub> max. at U <sub>e</sub>	20 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Protected against miswiring	yes
Rated insulation voltage U <sub>i</sub>	50 V DC
Rated operating current I <sub>e</sub> DC	50 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Switching frequency	800 Hz
Turn-off delay t <sub>off</sub> max.	0.63 ms
Turn-on delay t <sub>on</sub> max.	0.63 ms
Voltage drop U <sub>d</sub> max. at I <sub>e</sub>	2.5 V

### Environmental conditions

Ambient temperature	-25...50 °C
Protection class	III
Protection type IEC 60529	IP67

### Functional safety

Diagnostic coverage	0 %
Functional safety	no

Mission Time

10 a

### General data

Approval/Conformity	CE cULus
Basic standard	IEC 60947-5-2
Series	R020K
Style	Square Connection 60°

### Material

Housing material	ABS
Material jacket	PVC
Material sensing surface	PMMA

### Mechanical data

Dimension	7.7 x 26.8 x 13.5 mm
Fastening detail	Screw M3

### Optical data

Ambient light max.	5000 Lux
Light type	LED Red light
Special optical feature	Background suppression
Wave length	660 nm

### Output/Interface

Switching output	PNP Normally open (NO)
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## BOS R020K-PS-RF11-00,2-S49 BOS020M

### Range/Distance

Measuring range	1...30 mm
Range	1...30 mm
Rated operating distance $S_n$	30 mm
Ripple max. (% of $U_e$ )	20 %

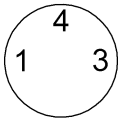
### Remarks

Order accessories separately.  
For additional information, refer to user's guide.  
Reference object (target): gray card, 100 x 100 90 % remission, axial approach.  
The sensor is functional again after the overload has been eliminated.

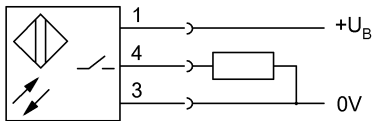
For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

### Connector view



### Wiring Diagram



### Symbols for Optoelectronic Sensors

