

### Basic features

Approval/Conformity	CE cULus UKCA WEEE
Principle of operation	Photoelectric sensor
Scope of delivery	Mounting bracket
Series	R81K
Style	Square with M18 Bullnose

### Display/Operation

Adjuster	Potentiometer 270°
Display	Output function- LED yellow supply voltage - LED green
Setting	Sensitivity (Sn)

### Electrical connection

Cable diameter D	3.9 mm
Cable length L	2 m
Connection	Cable, 2 m, PVC
Number of conductors	4
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

No-load current $I_0$ max. at $U_e$	20 mA
Operating voltage $U_b$	10...30 VDC
Rated operating current $I_e$	200 mA
Rated operating voltage $U_e$ DC	24 V
Ready delay $t_v$ max.	100 ms
Voltage drop $U_d$ max. at $I_e$	1 V

### Environmental conditions

Ambient temperature	-15...60 °C
IP rating	IP67

### Functional safety

MTTF (40 °C)	211 a
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### Interface

Switching output	NPN normally open (NO)
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### Material

Housing material	ABS PMMA
Material jacket	PVC
Material sensing surface	PMMA

Photoelectric Sensors  
**BOS R81K-NA-RD10-02**  
Order Code: BOS0295

**BALLUFF**

**Mechanical data**

Dimension	15 x 48.9 x 31 mm
Mounting part	Thread M18x1 Screw M3 (2x)

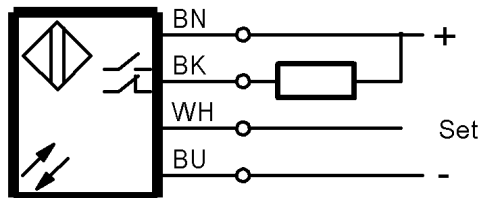
**Range/Distance**

Hysteresis H max.	20 %
Range	5...300 mm
Rated operating distance Sn	300 mm Adjustable

**Optical features**

Ambient light max.	10000 Lux
Light spot size	18 x 18 mm at 300 mm
Light type	LED, red light
Principle of optical operation	Diffuse sensor
Wave length	660 nm

**Wiring Diagrams**



**Opto Symbols**

