

#### 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

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

#### Electrical data

Operating voltage $U_b$	10...30 VDC
Rated operating current $I_e$	100 mA
Rated operating voltage $U_e$ DC	24 V
Ready delay $t_{V, max.}$	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)	260 a
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#### Interface

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

Housing material	ABS PMMA
Material sensing surface	PMMA

Photoelectric Sensors  
BOS R81K-NA-IE10-S4  
Order Code: BOS028Z

**BALLUFF**

#### Mechanical data

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

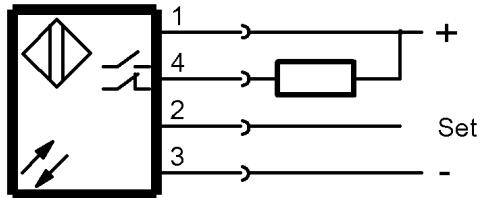
#### Optical features

Ambient light max.	10000 Lux
Light type	Infrared
Principle of optical operation	Through-beam sensor (receiver)
Wave length	850 nm

#### Range/Distance

Range	0.3...20 m
Rated operating distance Sn	20 m

#### Wiring Diagrams



#### Opto Symbols

