

Basic features

| | |
|-------------------------------|-------------------------------|
| Approval/Conformity | CE cULus UKCA WEEE |
| Principle of operation | Photoelectric sensor |
| Scope of delivery | Mounting bracket Reflector |
| 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_o 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) | 260 a |
|---------------------|-------|

Interface

| | |
|-------------------------|------------------------|
| Switching output | NPN normally open (NO) |
|-------------------------|------------------------|

Material

| | |
|---------------------------------|------|
| Housing material | ABS |
| Material jacket | PVC |
| Material sensing surface | PMMA |

Photoelectric Sensors
BOS R81K-NA-PR10-02
Order Code: BOS0291



Mechanical data

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

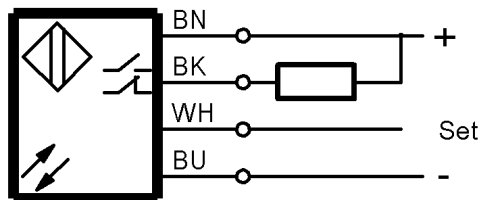
Optical features

| | |
|--------------------------------|------------------------|
| Ambient light max. | 10000 Lux |
| Light spot size | 180 x 180 mm at 3 m |
| Light type | LED, red light |
| Principle of optical operation | Retroreflective sensor |
| Wave length | 660 nm |

Range/Distance

| | |
|-----------------------------|----------------|
| Range | 0...3 m |
| Rated operating distance Sn | 3 m Adjustable |

Wiring Diagrams



Opto Symbols

