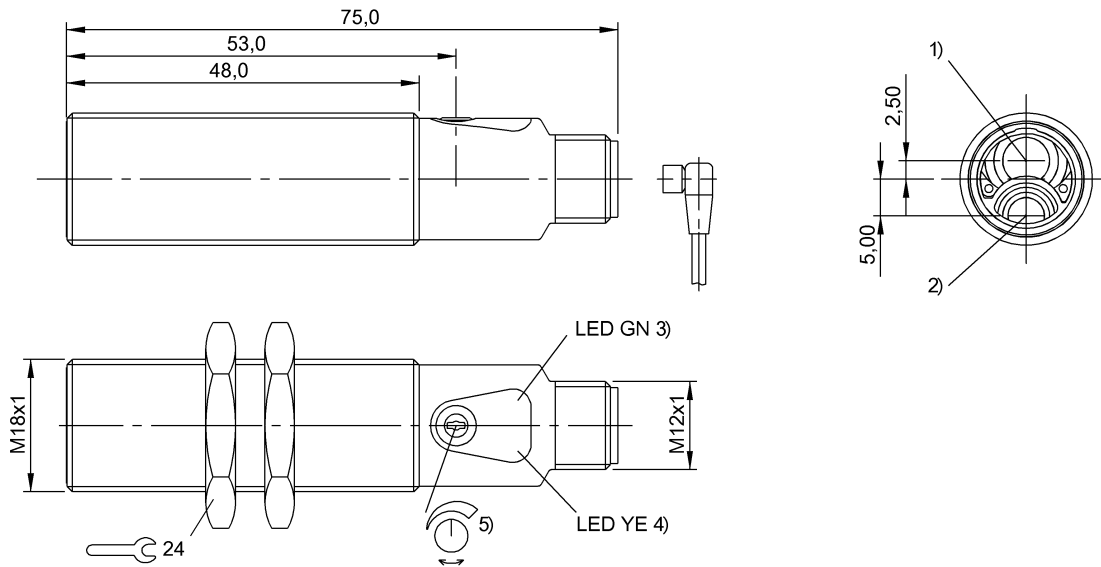


BOS 18M-PA-RH22-S4 BOS014W



1) Optical axis receiver 2) Optical axis emitter 3) Power/short-circuit 4) Output function/Error 5) Sn



Display/Operation

| | |
|----------|-------------------------------|
| Adjuster | Potentiometer 10-turn (1x) |
| Setting | Rated switching distance (Sn) |

Electrical connection

| | |
|-----------------------------|----------------------------------|
| Connection | M12x1-Connector, 4-pole, A-coded |
| Contact, surface protection | Gold plated |
| Polarity reversal protected | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|--|-------------|
| Hysteresis H max. (% of Sr) | 6.0 % |
| Load capacitance max. at Ue | 0.1 µF |
| No-load current I _o max. at Ue | 50 mA |
| Operating voltage U _b | 10...30 VDC |
| Pollution degree | 3 |
| Protected against miswiring | yes |
| Rated insulation voltage U _i | 75 V DC |
| Rated operating current I _e DC | 100 mA |
| Rated operating voltage U _e DC | 24 V |
| Ready delay t _v max. | 100 ms |
| Repeat accuracy max. (% of Sr) | 1.0 % |
| Residual current I _r max. | 10 µA |
| Switching frequency | 500 Hz |
| Turn-off delay t _{off} max. | 1 ms |
| Turn-on delay t _{on} max. | 1 ms |
| Utilization category | DC -13 |
| Voltage drop U _d max. at I _e | 2.5 V |

Environmental conditions

| | |
|---------------------------|------------|
| Ambient temperature | -5...55 °C |
| Protection class | II |
| Protection type IEC 60529 | IP67 |

General data

| | |
|---------------------|-----------------------------|
| Approval/Conformity | cULus CE |
| Basic standard | IEC 60947-5-2 |
| Series | 18M |
| Style | Cylinder Straight optics |

Material

| | |
|--------------------------|-------|
| Housing material | Brass |
| Material sensing surface | Glass |

Mechanical data

| | |
|------------------------|----------------|
| Dimension | Ø 18 x 75 mm |
| Fastening detail | Nut M18x1 |
| Tightening torque max. | 15 Nm 30 Nm |

Optical data

| | |
|-------------------------|------------------------|
| Ambient light max. | 10000 Lux |
| Beam characteristic | Divergent |
| LED group per IEC 62471 | Exempt Group |
| Light type | LED Red light |
| Special optical feature | Background suppression |
| Wave length | 630 nm |

BOS 18M-PA-RH22-S4 BOS014W

Ripple max. (% of Ue)

15 %

Output/Interface

Switching output PNP Normally closed (NC)
 PNP Normally open (NO)

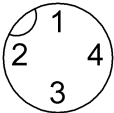
Range/Distance

Distance deviation 18 % max. (% of Sr) typ. 18 %
Measuring range 30...300 mm
Range 30...300 mm
Rated operating distance S_n 300 mm, Adjustable

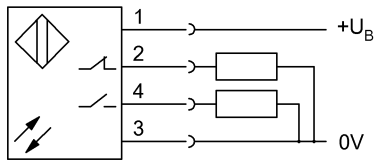
Remarks

Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.
Reference object (target): gray card, 100 x 100 90 % remission, axial approach.
The sensor is functional again after the overload has been eliminated.
Order accessories separately.
For additional information, refer to user's guide.

Connector view



Wiring Diagram



Symbols for Optoelectronic Sensors

