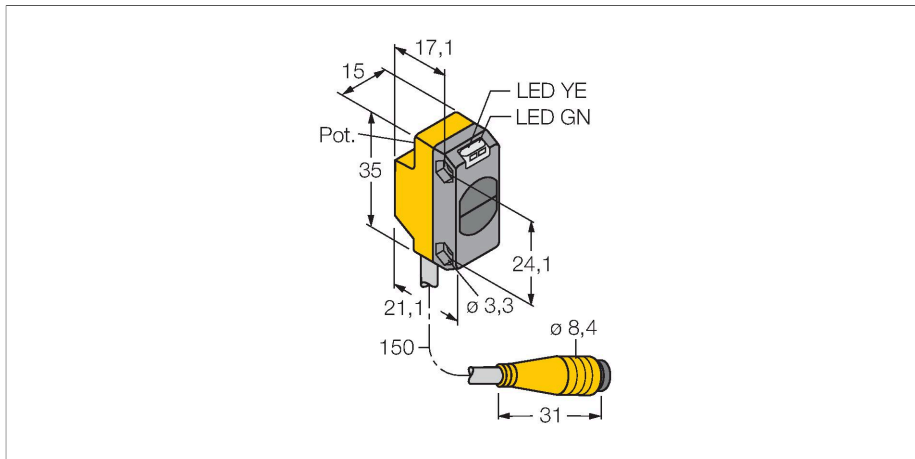


QS18VN6RBQ

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)



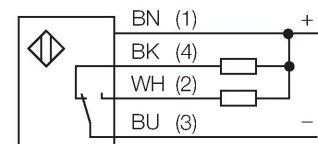
Technical data

| | |
|------------------------------|---|
| Type | QS18VN6RBQ |
| ID no. | 3061670 |
| Optical data | |
| Function | Opposed mode sensor |
| Operating mode | Receiver |
| Range | 0...3000 mm |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | < 10 % U _{ss} |
| DC rated operational current | ≤ 100 mA |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Output function | NO/NC, NPN |
| Current output | 100 mA |
| Switching frequency | ≤ 400 Hz |
| Readiness delay | ≤ 100 ms |
| Response time typical | < 0.75 ms |
| Mechanical data | |
| Design | Rectangular, QS18 |
| Dimensions | 27.7 x 15 x 35 mm |
| Housing material | Plastic, ABS |
| Lens | plastic, Acrylic |
| Electrical connection | Cable with connector, M8 × 1, 0.15 m, PVC |
| Number of cores | 4 |
| Ambient temperature | -20...+70 °C |

Features

- Cable with male end, 4-pin, PVC, 150 mm, 8 mm
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

Wiring diagram



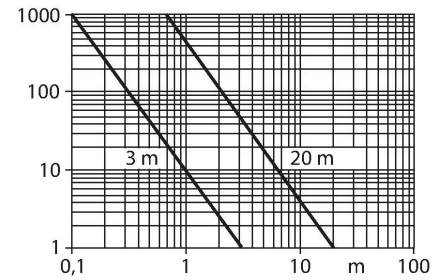
Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite to each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. The excellent light/dark contrast and the high excess gain allow operation over larger distances and under difficult conditions.

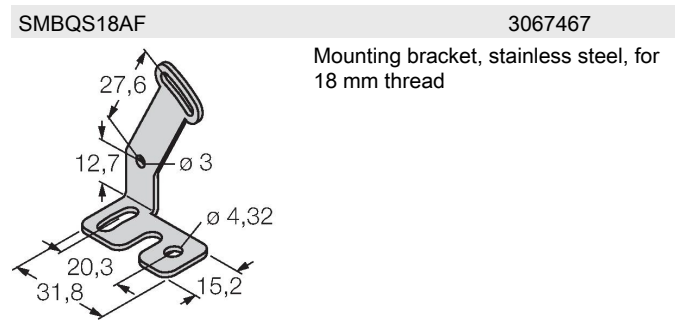
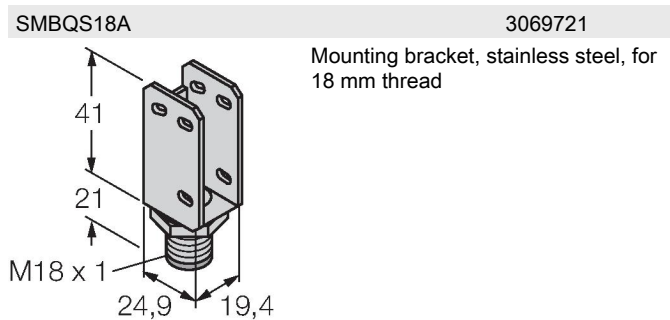
Excess gain curve
Excess gain in relation to the distance (type 6EB/RB)

Technical data

| | |
|------------------------|--|
| Protection class | IP67 |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Error indication | LED, green, Flashing |
| Excess gain indication | LED, yellow, flashing |
| Tests/approvals | |
| MTTF | 2952 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals | CE, cURus |



Accessories



Accessories

| Dimension drawing | Type | ID no. | |
|-------------------|-------------|---------|---|
| | PKG4M-2/TEL | 6625061 | Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |
| | PKW4M-2/TEL | 6625067 | Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |