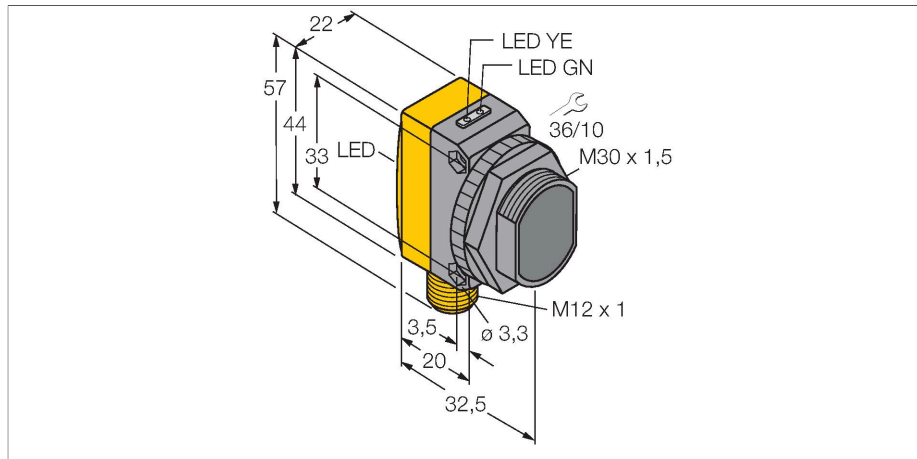


QS30RQ

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)



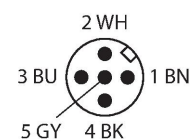
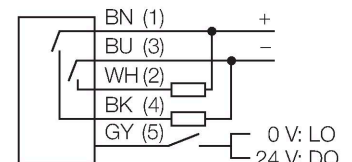
Technical data

| | |
|------------------------------|---|
| Type | QS30RQ |
| ID no. | 3073079 |
| Optical data | |
| Function | Opposed mode sensor |
| Operating mode | Receiver |
| Range | 0...60000 mm |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | < 10 % U _{ss} |
| DC rated operational current | ≤ 150 mA |
| No-load current | ≤ 22 mA |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Output function | NO contact, PNP/NPN |
| Switching frequency | ≤ 100 Hz |
| Readiness delay | ≤ 100 ms |
| Response time typical | < 5 ms |
| Mechanical data | |
| Design | Rectangular with thread, QS30 |
| Dimensions | Ø 30 x 35 x 22 x 57 mm |
| Housing material | Plastic, Thermoplastic material, Yellow |
| Lens | plastic, Acrylic |
| Electrical connection | Connectors, M12 × 1, PVC |
| Number of cores | 5 |
| Ambient temperature | -20...+70 °C |
| Protection class | IP67 |

Features

- Male M12 × 1, 5-pin
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring diagram



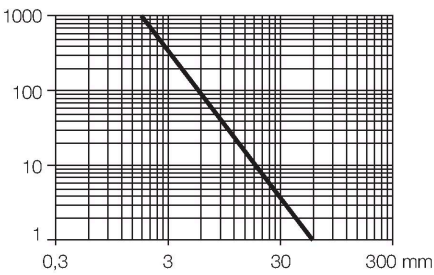
Functional principle

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. Large distance operation is possible due to an excellent light/dark contrast and an extremely high excess gain.

Excess gain curve
Excess gain in relation to the distance

Technical data

| | |
|------------------------|---|
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Error indication | LED, green, Flashing |
| Excess gain indication | LED, yellow |
| Tests/approvals | |
| MTTF | 293 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals | CE |



Accessories

SMB30A

3032723

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

SMBQS30L

3002809

Mounting bracket, stainless steel, for QS30 series

SMB30MM

3027162

Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment

SMB30SC

3052521

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

Accessories

| Dimension drawing | Type | ID no. | |
|-------------------|---------------|---------|--|
| | WKC4.5T-2/TEL | 6625028 | Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |
| | RKC4.5T-2/TEL | 6625016 | Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |