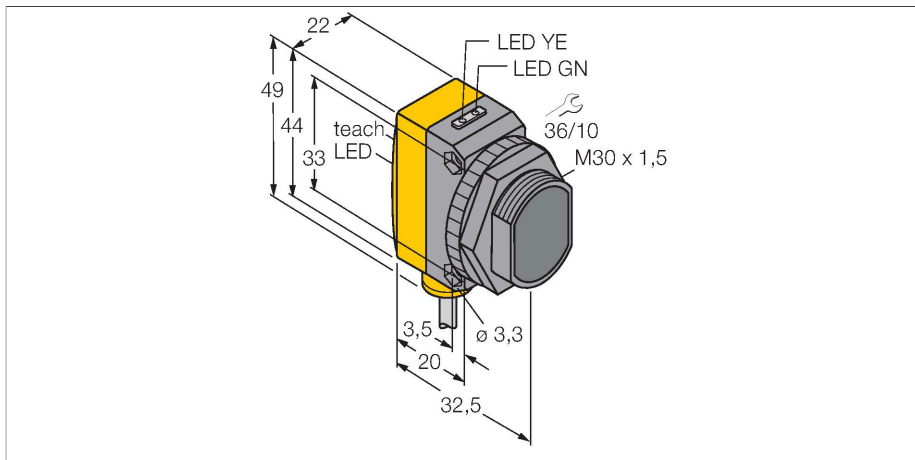


QS30LDLQPMA

Photoelectric Sensor – Diffuse Mode Sensor



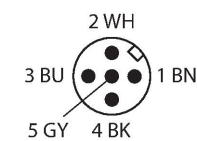
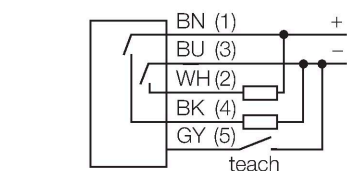
Technical data

| | |
|------------------------------|-------------------------------|
| Type | QS30LDLQPMA |
| ID | 3071914 |
| Optical data | |
| Function | Proximity switch |
| Operating mode | Diffuse |
| Light type | Red |
| Wavelength | 658 nm |
| Laser class | ⚠ 2 |
| Beam diameter | 2 mm |
| Range | 0...800 mm |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | < 10 % U _{ss} |
| DC rated operational current | ≤ 150 mA |
| No-load current | ≤ 35 mA |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Output function | NO contact, PNP/NPN |
| Switching frequency | ≤ 1000 Hz |
| Readiness delay | ≤ 1 s |
| Readiness delay | ≤ 1000 ms |
| Response time typical | < 0.5 ms |
| Setting option | Push Button Remote Teach |
| Mechanical data | |
| Design | Rectangular with thread, QS30 |
| Dimensions | Ø 30 x 35 x 22 x 49 mm |

Features

- Cable with male end M12 × 1, 5-pin, PUR, 150 mm
- Protection class IP67
- LED all-round visible
- Teach button
- 8-segment bargraph
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring diagram



Functional principle

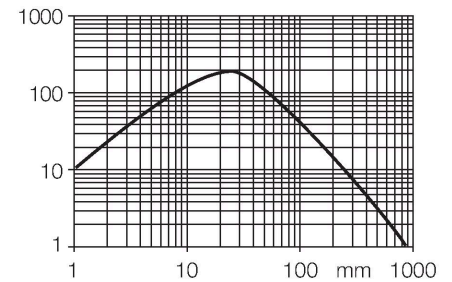
The emitter and receiver are incorporated in the same housing. The light reflection of the target is detected and causes the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

Technical data

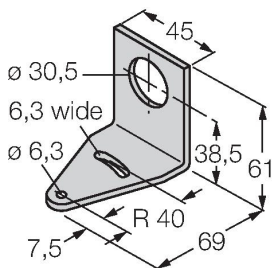
| | |
|------------------------|--|
| Housing material | Plastic, Thermoplastic material, Yellow |
| Lens | plastic, Acrylic |
| Electrical connection | Cable with connector, M12 × 1, 0.15 m, PUR |
| Number of cores | 5 |
| Ambient temperature | -10...+50 °C |
| Protection class | IP67 |
| Special features | keep/defer |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Error indication | LED, green, Flashing |
| Excess gain indication | LED, red, flashing |
| Tests/approvals | |
| MTTF | 28 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals | CE |



Accessories

SMB30A

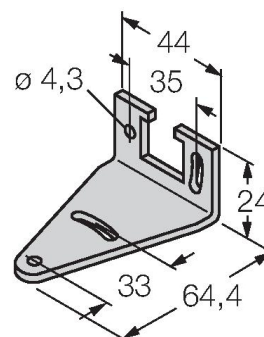
3032723



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

SMBQS30L

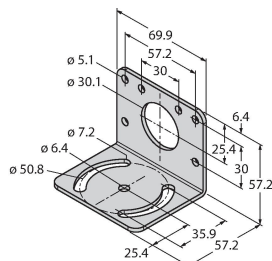
3002809



Mounting bracket, stainless steel, for QS30 series

SMB30MM

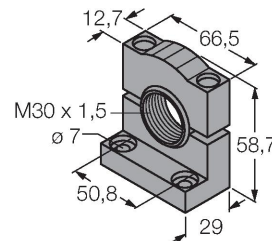
3027162



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 | |
|-------------------|---------------|---------|--|
| | 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 |