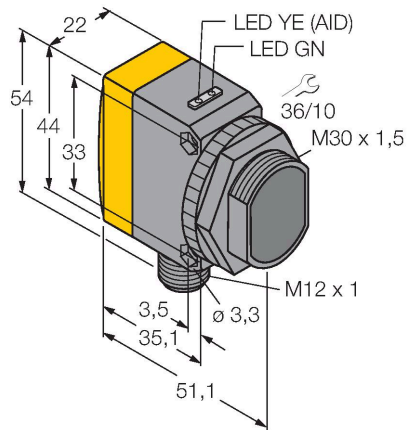


QS30AF600Q

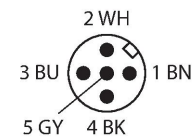
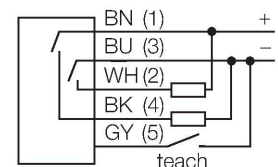
Photoelectric Sensor – Diffuse Mode Sensor with Adjustable Background Suppression



Features

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

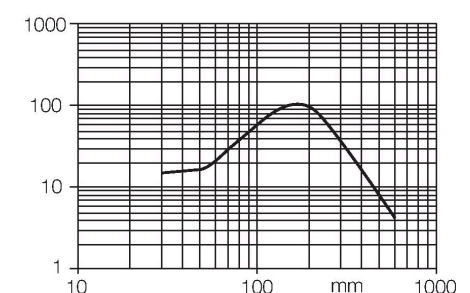
Wiring diagram



Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target's position and the optical structure of the sensor determine which receiver element gets the most light. The sensor electronics then determine whether the reflecting target is in or outside the measuring range. The sensors are available with adjustable or fixed cut-off point.

Excess gain curve
Excess gain in relation to distance



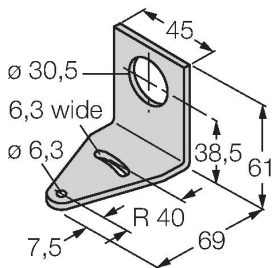
Technical data

| | |
|------------------------------|---|
| Type | QS30AF600Q |
| ID no. | 3011980 |
| Optical data | |
| Function | Proximity switch |
| Operating mode | Background suppression, adjustable |
| Light type | Red |
| Wavelength | 660 nm |
| Range | 50...600 mm |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | < 10 % U _{ss} |
| DC rated operational current | ≤ 150 mA |
| No-load current | ≤ 45 mA |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Output function | NO contact, PNP/NPN |
| Switching frequency | ≤ 500 Hz |
| Readiness delay | ≤ 200 ms |
| Response time typical | < 5 ms |
| Setting option | Mechanical Screw |
| 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 |

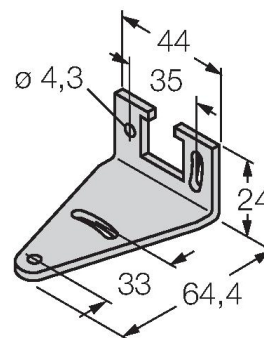
Technical data

| | |
|------------------------|----------------------|
| Number of cores | 5 |
| Ambient temperature | -20...+60 °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 | |
| Approvals | CE |

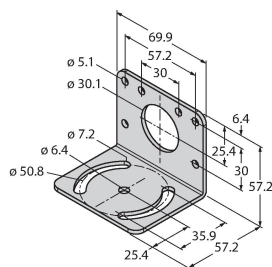
Accessories

SMB30A
3032723


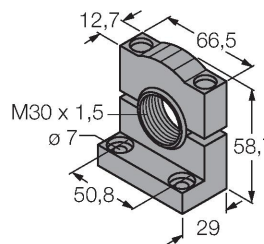
Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

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 |