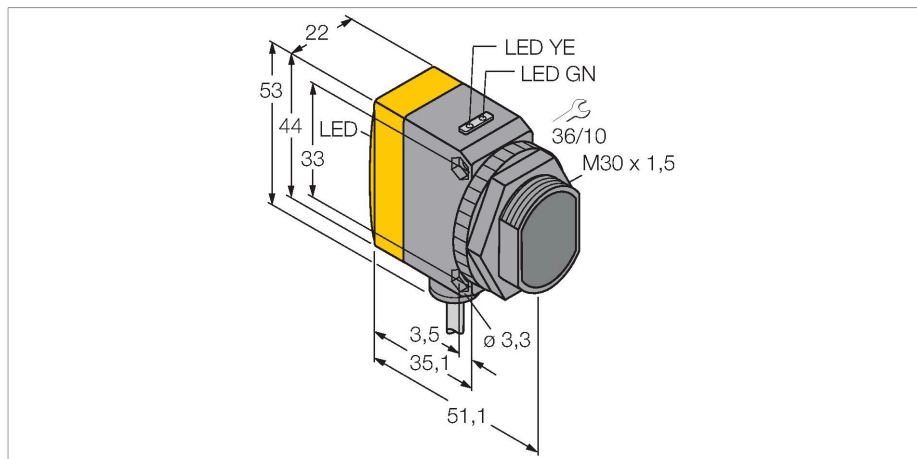


QS30RRXH2O

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)

For Water Detection



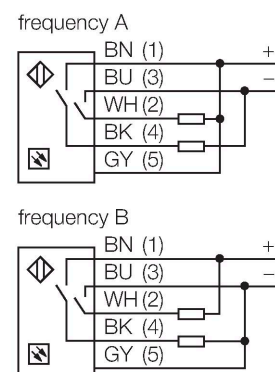
Technical data

| | |
|------------------------------|---|
| Type | QS30RRXH2O |
| ID | 3079176 |
| Optical data | |
| Function | Opposed mode sensor |
| Operating mode | Receiver |
| Range | 0...4000 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 contact, dark operation, PNP/NPN |
| Readiness delay | ≤ 100 ms |
| Response time typical | < 1 ms |
| Mechanical data | |
| Design | Rectangular with thread, QS30 |
| Dimensions | Ø 30 x 54.3 x 22 x 53 mm |
| Housing material | Plastic, Thermoplastic material, Yellow |
| Lens | plastic, Acrylic |
| Electrical connection | Cable, 2 m, PVC |
| Number of cores | 5 |
| Core cross-section | 0.5 mm ² |
| Ambient temperature | -20...+60 °C |

Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Selectable operating frequency, protection against crosstalk
- Operating voltage: 10...30 VDC
- Switching output, bipolar, dark operation

Wiring diagram



Functional principle

The opposed mode sensor incorporates an emitter and a receiver. The emitter emits light in the near IR range with a wavelength of 1450 nm, which approximates one of the absorption edges of water. The resulting high contrast ratio leads to a particularly high sensitivity with water or media containing water as opposed to transparent media.

Technical data

| | |
|------------------------|---------------------------------|
| Protection class | IP67 |
| Special features | Encapsulated Water detection |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Error indication | LED, green, Flashing |
| Excess gain indication | Bargraph, yellow, flashing |
| Tests/approvals | |
| Approvals | CE |

Accessories

| | | | |
|------------------------|---|-------------------------|---|
| <p>SMBQS30Y</p> | <p>3002811</p> <p>Protective housing, stainless steel, for QS30 series</p> | <p>SMBQS30YL</p> | <p>3072741</p> <p>Protective housing with safety glass panel, stainless steel, for QS30 series</p> |
| <p>SMB30A</p> | <p>3032723</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread</p> | <p>SMBQS30L</p> | <p>3002809</p> <p>Mounting bracket, stainless steel, for QS30 series</p> |
| <p>SMB30MM</p> | <p>3027162</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment</p> | <p>SMB30SC</p> | <p>3052521</p> <p>Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable</p> |