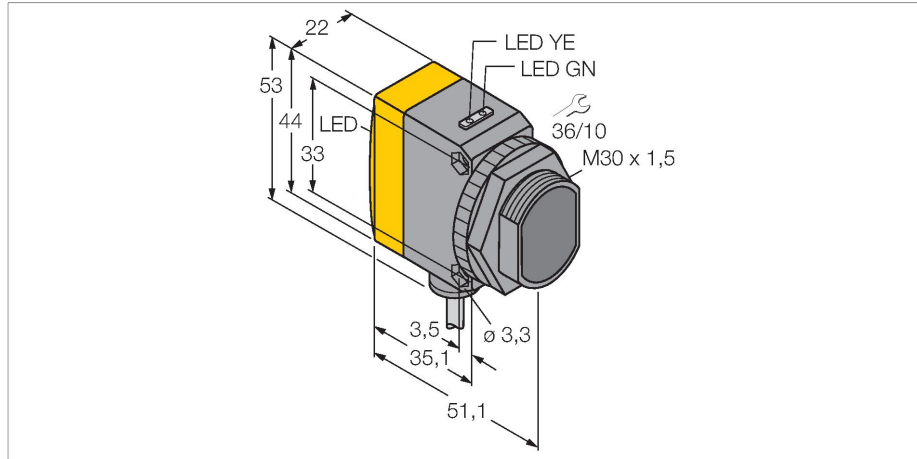


# QS30RRXSH2O

## Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)

### For Water Detection



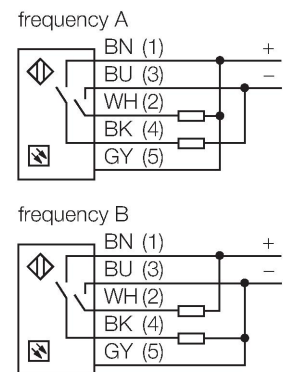
#### Technical data

|                              |                                         |
|------------------------------|-----------------------------------------|
| Type                         | QS30RRXSH2O                             |
| ID                           | 3083304                                 |
| <b>Optical data</b>          |                                         |
| Function                     | Opposed mode sensor                     |
| Operating mode               | Receiver                                |
| Range                        | 0...8000 mm                             |
| <b>Electrical data</b>       |                                         |
| Operating voltage            | 10...30 VDC                             |
| Residual ripple              | < 10 % U <sub>ss</sub>                  |
| DC rated operational current | ≤ 65 mA                                 |
| Short-circuit protection     | yes                                     |
| Reverse polarity protection  | yes                                     |
| Output function              | NO contact, dark operation, PNP/NPN     |
| Readiness delay              | ≤ 100 ms                                |
| Response time typical        | < 10 ms                                 |
| <b>Mechanical data</b>       |                                         |
| 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 <sup>2</sup>                     |
| Ambient temperature          | -20...+60 °C                            |

#### Features

- Cable, PVC, 2 m
- Protection class IP67
- Cable, 2 m
- Super high-power water detection sensor
- 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<br>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

SMBQS30Y

3002811

Protective housing, stainless steel, for QS30 series

SMBQS30YL

3072741

Protective housing with safety glass panel, stainless steel, for QS30 series

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