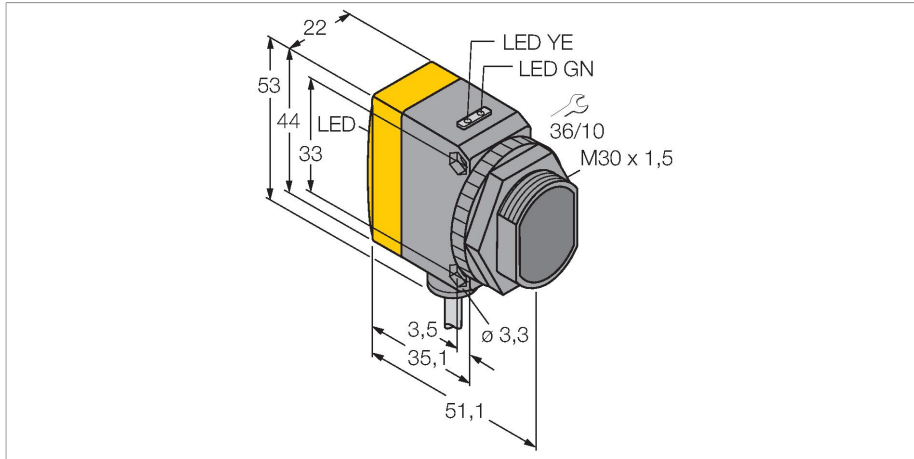


# QS30ARXSH20

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

### For Water Detection



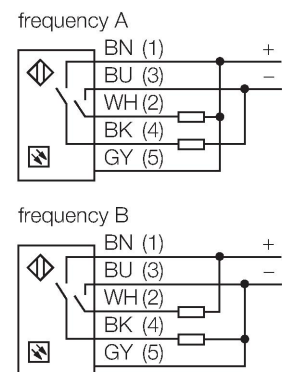
#### Technical data

|                              |                                         |
|------------------------------|-----------------------------------------|
| Type                         | QS30ARXSH20                             |
| ID                           | 3083301                                 |
| <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 | ≤ 100 mA                                |
| Short-circuit protection     | yes                                     |
| Reverse polarity protection  | yes                                     |
| Output function              | NO contact, light 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
- LED all-round visible
- Selectable operating frequency, protection against crosstalk
- Operating voltage: 10...30 VDC
- Switching output, bipolar, light 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

