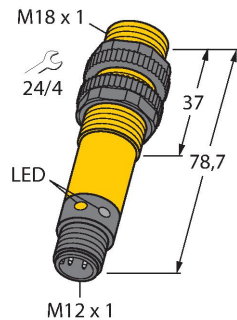


# S18RW3DQ1

## Photoelectric Sensor – Diffuse Mode Sensor



### Technical data

|                              |                                 |
|------------------------------|---------------------------------|
| Type                         | S18RW3DQ1                       |
| ID                           | 3035149                         |
| <b>Optical data</b>          |                                 |
| Function                     | Proximity switch                |
| Operating mode               | Diffuse                         |
| Light type                   | IR                              |
| Wavelength                   | 880 nm                          |
| Range                        | 0...100 mm                      |
| <b>Electrical data</b>       |                                 |
| Operating voltage            | 20...250 VAC                    |
| AC rated operational current | ≤ 200 mA                        |
| Output function              | Dark operation, Relay output    |
| Switching frequency          | ≤ 40 Hz                         |
| Readiness delay              | ≤ 100 ms                        |
| Response time typical        | < 16 ms                         |
| <b>Mechanical data</b>       |                                 |
| Design                       | Tube, S18                       |
| Dimensions                   | Ø 18 x 78.7 mm                  |
| Housing material             | Plastic, Thermoplastic material |
| Lens                         | plastic, Acrylic                |
| Electrical connection        | Connector, 1/2", PVC            |
| Number of cores              | 4                               |
| Ambient temperature          | -40...+70 °C                    |
| Protection class             | IP67<br>IP69                    |
| Special features             | Encapsulated<br>Wash down       |
| Power-on indication          | LED, Green                      |

### Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Selectable light/dark operation or light operation with alarm function

### Wiring diagram

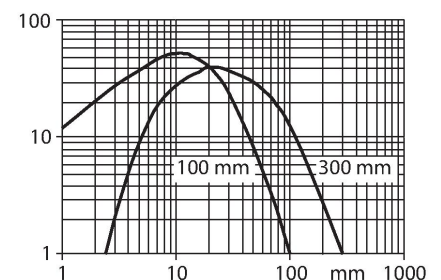


### Functional principle

The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers 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

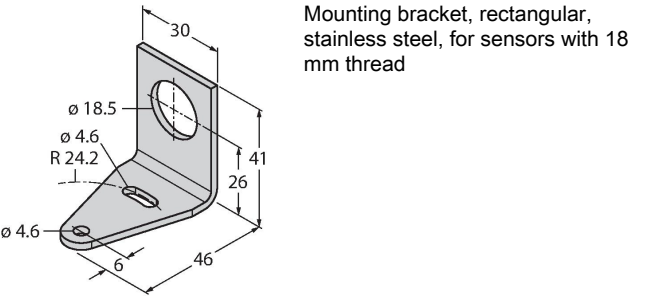


Technical data

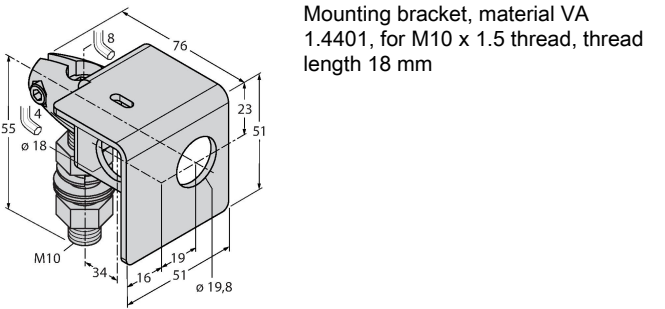
|                        |             |
|------------------------|-------------|
| Switching state        | LED, Yellow |
| Excess gain indication | LED         |
| Tests/approvals        |             |
| Approvals              | CE, UL, CSA |

Accessories

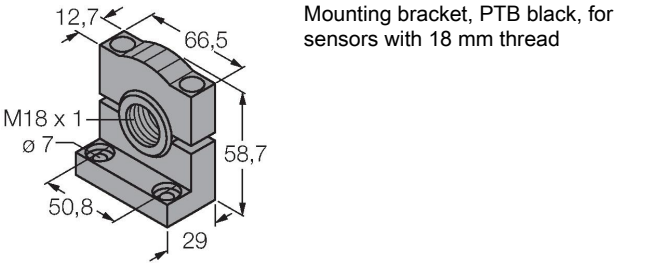
SMB18A 3033200



SMB18AFAM10 3012558



SMB3018SC 3053952



SMBAMS18P 3073134

