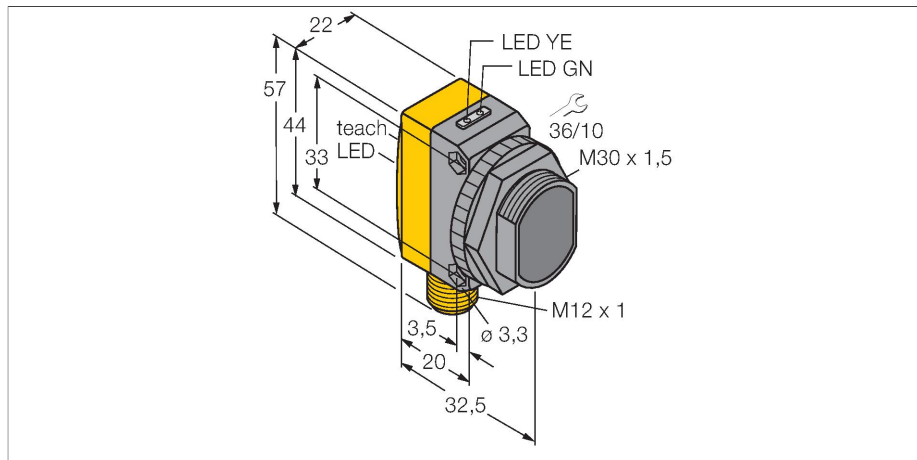


# QS30LDQ-71066

## Photoelectric Sensor – Diffuse Mode Sensor



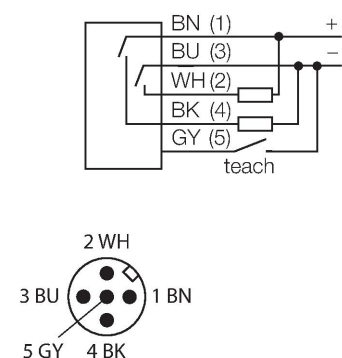
### Technical data

|                              |                                         |
|------------------------------|-----------------------------------------|
| Type                         | QS30LDQ-71066                           |
| ID                           | 3071066                                 |
| <b>Optical data</b>          |                                         |
| Function                     | Proximity switch                        |
| Operating mode               | Diffuse                                 |
| Light type                   | Red                                     |
| Wavelength                   | 650 nm                                  |
| Laser class                  | ▲ 1                                     |
| Beam diameter                | 2 mm                                    |
| Range                        | 0...400 mm                              |
| <b>Electrical data</b>       |                                         |
| Operating voltage            | 10...30 VDC                             |
| Residual ripple              | < 10 % U <sub>ss</sub>                  |
| DC rated operational current | ≤ 150 mA                                |
| No-load current              | ≤ 35 mA                                 |
| Short-circuit protection     | yes                                     |
| Reverse polarity protection  | yes                                     |
| Output function              | NO contact, PNP/NPN                     |
| Switching frequency          | ≤ 1000 Hz                               |
| Readiness delay              | ≤ 1 s                                   |
| Readiness delay              | ≤ 1000 ms                               |
| Response time typical        | < 0.5 ms                                |
| Setting option               | Push Button                             |
| <b>Mechanical data</b>       |                                         |
| Design                       | Rectangular with thread, QS30           |
| Dimensions                   | Ø 30 x 35 x 22 x 57 mm                  |
| Housing material             | Plastic, Thermoplastic material, Yellow |

### Features

- Male M12 × 1, 5-pin
- Protection class IP67
- LED, all-round visible
- Teach button
- No remote teach-in
- 8-segment bargraph
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

### Wiring diagram



### Functional principle

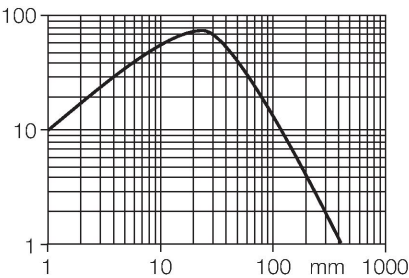
The emitter and receiver are incorporated in the same housing. The light reflection of the target is detected and causes the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

Technical data

|                        |                                          |
|------------------------|------------------------------------------|
| Lens                   | plastic, Acrylic                         |
| Electrical connection  | Connector, M12 × 1, PVC                  |
| Number of cores        | 5                                        |
| Ambient temperature    | -10...+50 °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        |                                          |
| MTTF                   | 28 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE                                       |



Accessories

SMB30A3032723

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

SMBQS30L3002809

Mounting bracket, stainless steel, for QS30 series

SMB30MM3027162

Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment

SMB30SC3052521

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

Accessories

| Dimension drawing | Type          | ID      |                                                                                                                                                                                                                |
|-------------------|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | 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 <a href="http://www.turck.com">www.turck.com</a> |

| Dimension drawing | Type          | ID      |                                                                                                                                                                                                                  |
|-------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | 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 <a href="http://www.turck.com">www.turck.com</a> |

