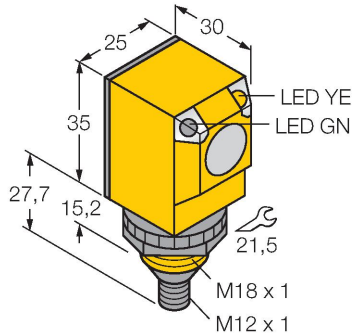


# Q25SN6LPQ

## Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



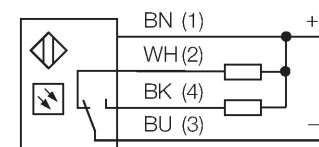
### Technical data

|                                |                                 |
|--------------------------------|---------------------------------|
| Type                           | Q25SN6LPQ                       |
| ID                             | 3031933                         |
| <b>Optical data</b>            |                                 |
| Function                       | Retroreflective Sensor          |
| Operating mode                 | Polarized                       |
| Reflector included in delivery | no                              |
| Light type                     | Red polarized                   |
| Wavelength                     | 680 nm                          |
| Range                          | 50...2000 mm                    |
| <b>Electrical data</b>         |                                 |
| Operating voltage              | 10...30 VDC                     |
| No-load current                | ≤ 30 mA                         |
| Short-circuit protection       | yes / Cyclic                    |
| Reverse polarity protection    | yes                             |
| Output function                | Connection programmable, NPN    |
| Switching frequency            | ≤ 160 Hz                        |
| Readiness delay                | ≤ 100 ms                        |
| Response time typical          | < 3 ms                          |
| Overcurrent release            | > 220 mA                        |
| <b>Mechanical data</b>         |                                 |
| Design                         | Rectangular, Q25                |
| Dimensions                     | Ø 18 x 30 x 25 x 62.7 mm        |
| Housing material               | Plastic, Thermoplastic material |
| Lens                           | plastic, Acrylic                |
| Electrical connection          | Connector, M12 × 1, PVC         |
| Number of cores                | 4                               |

### 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
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

### Wiring diagram



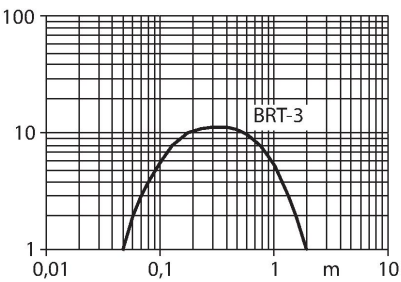
### Functional principle

Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors have a high function gain and good contrast performance. Further it is merely required to install and wire a single device.

Excess gain curve  
Excess gain in relation to the distance

Technical data

|                        |                                                 |
|------------------------|-------------------------------------------------|
| Ambient temperature    | -40...+70 °C                                    |
| Protection class       | IP69                                            |
| Special features       | Chemical-resistant<br>Encapsulated<br>Wash down |
| Power-on indication    | LED, Green                                      |
| Switching state        | LED, Yellow                                     |
| Error indication       | LED, green, Flashing                            |
| Excess gain indication | LED                                             |
| Alarm display          | LED yellow Flashing                             |
| Tests/approvals        |                                                 |
| Approvals              | CE, UL, CSA                                     |



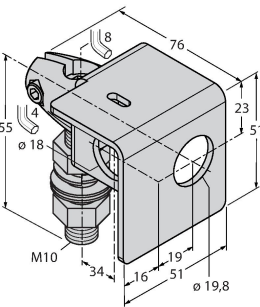
Accessories

SMB18A 3033200



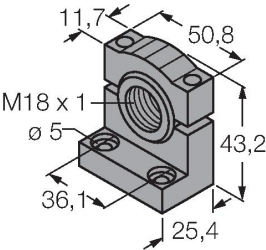
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18AFAM10 3012558



Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

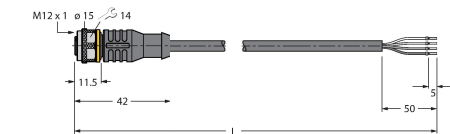
SMB18SF 3052519



Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

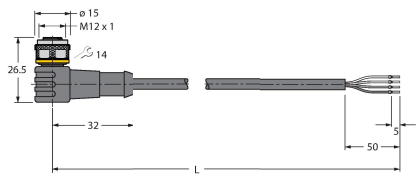
Accessories

| Dimension drawing | Type          | ID      |
|-------------------|---------------|---------|
|                   | RKC4.4T-2/TEL | 6625013 |



Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see [www.turck.com](http://www.turck.com)

| Dimension drawing | Type          | ID      |                                                                                                                                                                                                                |
|-------------------|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | WKC4.4T-2/TEL | 6625025 | Connection cable, female M12, angled, 4-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> |



Accessories

| Dimension drawing | Type  | ID      |                                                                                                 |
|-------------------|-------|---------|-------------------------------------------------------------------------------------------------|
|                   | BRT-3 | 3016164 | Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C |

