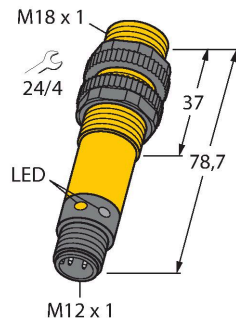


# S18SP6DQ

## Photoelectric Sensor – Diffuse Mode Sensor



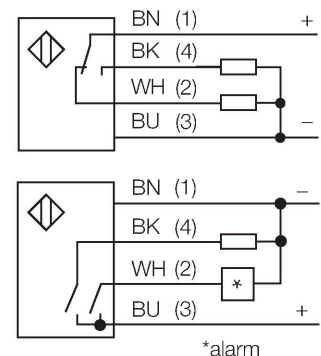
### Technical data

|                             |                                 |
|-----------------------------|---------------------------------|
| Type                        | S18SP6DQ                        |
| ID                          | 3029508                         |
| <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           | 10...30 VDC                     |
| No-load current             | ≤ 25 mA                         |
| Short-circuit protection    | yes / Cyclic                    |
| Reverse polarity protection | yes                             |
| Output function             | Connection programmable, PNP    |
| Switching frequency         | ≤ 160 Hz                        |
| Readiness delay             | ≤ 100 ms                        |
| Response time typical       | < 3 ms                          |
| Overcurrent release         | > 220 mA                        |
| <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, M12 × 1, PVC         |
| Number of cores             | 4                               |
| Ambient temperature         | -40...+70 °C                    |
| Protection class            | IP67                            |

### 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
- PNP switching output, changeover

### Wiring diagram



### Functional principle

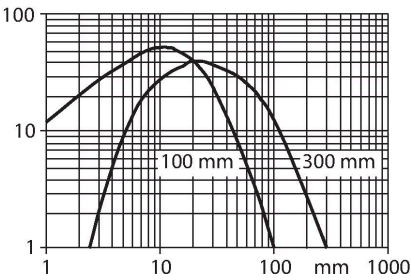
The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

Technical data

|                        |                           |
|------------------------|---------------------------|
|                        | IP69                      |
| Special features       | 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

SMB3018SC

3053952

Mounting bracket, PTB black, for sensors with 18 mm thread

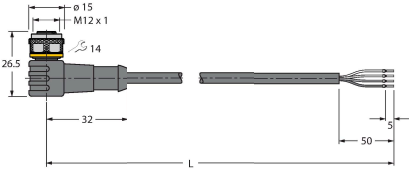
SMBAMS18P

3073134

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

Accessories

| Dimension drawing                                                        | Type          | ID      |                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>M12 x 1 ø 15 14</p> <p>11.5</p> <p>42</p> <p>L</p> <p>50</p> <p>5</p> | 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 <a href="http://www.turck.com">www.turck.com</a> |

| 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> |