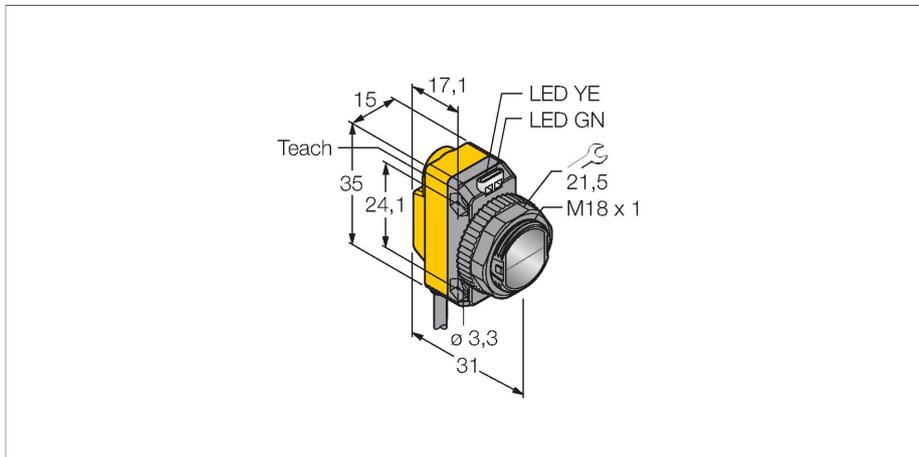


# QS18EP6LP

## Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



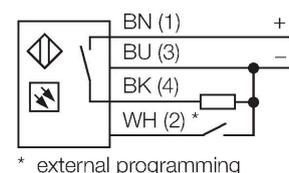
### Technical data

|                                |                               |
|--------------------------------|-------------------------------|
| Type                           | QS18EP6LP                     |
| ID no.                         | 3068742                       |
| <b>Optical data</b>            |                               |
| Function                       | Retroreflective Sensor        |
| Operating mode                 | Polarized                     |
| Reflector included in delivery | no                            |
| Light type                     | Red polarized                 |
| Wavelength                     | 630 nm                        |
| Range                          | 50...3500 mm                  |
| <b>Electrical data</b>         |                               |
| Operating voltage              | 10...30 VDC                   |
| DC rated operational current   | ≤ 100 mA                      |
| No-load current                | ≤ 35 mA                       |
| Reverse polarity protection    | yes                           |
| Output function                | NO contact, PNP               |
| Switching frequency            | ≤ 833 Hz                      |
| Readiness delay                | ≤ 100 ms                      |
| Response time typical          | < 0.6 ms                      |
| Setting option                 | Push Button<br>Remote Teach   |
| <b>Mechanical data</b>         |                               |
| Design                         | Rectangular with thread, QS18 |
| Dimensions                     | Ø 18 x 31 x 15 x 35 mm        |
| Housing material               | Plastic, ABS                  |
| Lens                           | plastic, PMMA                 |
| Electrical connection          | Cable, 2 m, PVC               |

### Features

- Cable, PVC, 2 m, 4-wire
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via teach button
- Operating voltage: 10...30 VDC
- PNP switching output
- Light or dark operation

### Wiring diagram



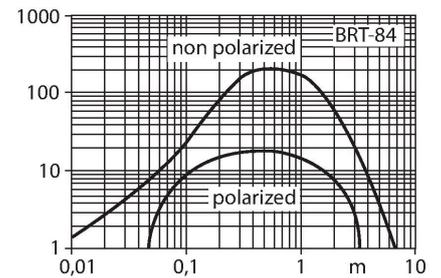
### Functional principle

Retro-reflective sensors incorporate emitter and receiver in the same 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 incorporate some of the advantages of opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

Excess gain curve  
Excess gain in relation to the distance (type LP)

## Technical data

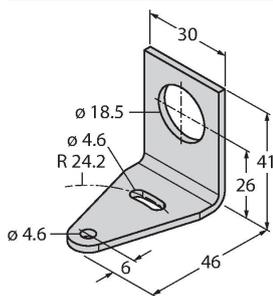
|                        |                      |
|------------------------|----------------------|
| Number of cores        | 4                    |
| Core cross-section     | 0.5 mm <sup>2</sup>  |
| Ambient temperature    | -20...+70 °C         |
| Protection class       | IP67                 |
| Special features       | keep/defer           |
| Power-on indication    | LED, Green           |
| Switching state        | LED, Yellow          |
| Error indication       | LED, green, Flashing |
| Excess gain indication | LED                  |
| Alarm display          | LED yellow Flashing  |
| <b>Tests/approvals</b> |                      |
| Approvals              | CE, cURus            |



## Accessories

SMB18A

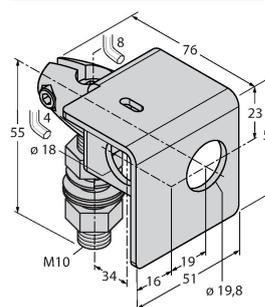
3033200



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

SMB18AFAM10

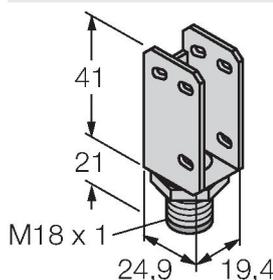
3012558



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

SMBQS18A

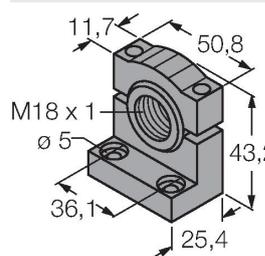
3069721



Mounting bracket, stainless steel, for 18 mm thread

SMB18SF

3052519



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

## Accessories

| Dimension drawing | Type   | ID no.  |   |
|-------------------|--------|---------|---|
|                   | BRT-84 | 3058979 | Round reflector, reflection coefficient 1.4, material acrylic, ambient temperature -20 ... +60 °C |

