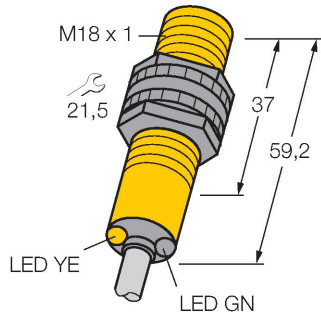


# S18SN6L

## Photoelectric Sensor – Retroreflective Sensor



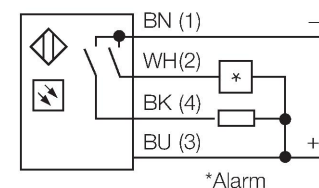
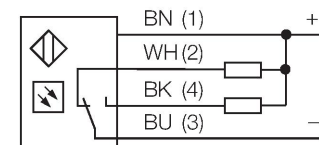
### Technical data

|                                |                                 |
|--------------------------------|---------------------------------|
| Type                           | S18SN6L                         |
| ID                             | 3028556                         |
| <b>Optical data</b>            |                                 |
| Function                       | Retroreflective Sensor          |
| Operating mode                 | Unpolarized                     |
| Reflector included in delivery | no                              |
| Light type                     | IR                              |
| Wavelength                     | 950 nm                          |
| Range                          | 50...2000 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, NPN    |
| 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 59.2 mm                  |
| Housing material               | Plastic, Thermoplastic material |
| Lens                           | plastic, Acrylic                |
| Electrical connection          | Cable, 2 m, PVC                 |
| Number of cores                | 4                               |
| Core cross-section             | 0.5 mm <sup>2</sup>             |

### Features

- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Selectable light/dark operation or light operation with alarm function
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

### Wiring diagram

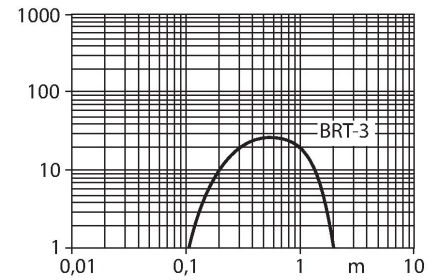


### Functional principle

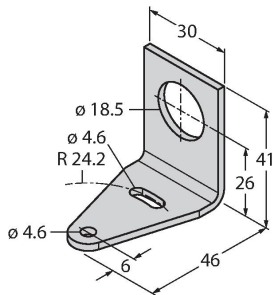
Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors have a high function gain and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

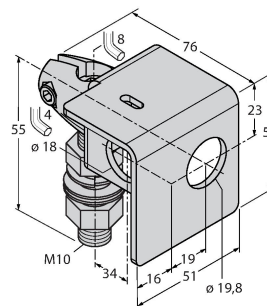
|                        |                           |
|------------------------|---------------------------|
| Ambient temperature    | -40...+70 °C              |
| Protection class       | IP67<br>IP69              |
| Special features       | Encapsulated<br>Wash down |
| Power-on indication    | LED, Green                |
| Switching state        | LED, Yellow               |
| Error indication       | LED, green, Flashing      |
| Excess gain indication | LED                       |
| Alarm display          | LED yellow Flashing       |
| <b>Tests/approvals</b> |                           |
| Approvals              | CE, UL, CSA               |



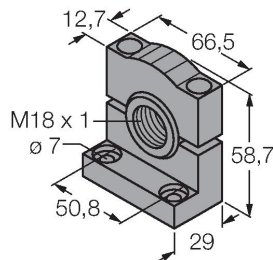
## Accessories

**SMB18A**
**3033200**


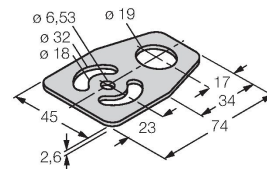
Mounting bracket, rectangular,  
stainless steel, for sensors with 18  
mm thread

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