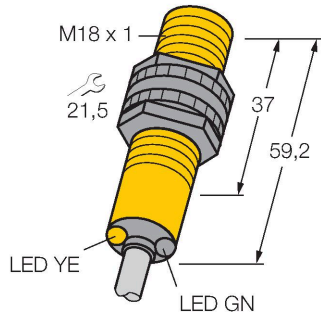


# S18RW3L

## Photoelectric Sensor – Retroreflective Sensor



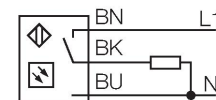
### Technical data

|                                |                                 |
|--------------------------------|---------------------------------|
| Type                           | S18RW3L                         |
| ID                             | 3029820                         |
| <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              | 20...250 VAC                    |
| AC rated operational current   | ≤ 200 mA                        |
| Output function                | Dark operation, Relay output    |
| Switching frequency            | ≤ 40 Hz                         |
| Readiness delay                | ≤ 100 ms                        |
| Response time typical          | < 16 ms                         |
| <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                | 3                               |
| Core cross-section             | 0.5 mm <sup>2</sup>             |
| Ambient temperature            | -40...+70 °C                    |
| Protection class               | IP67<br>IP69                    |

### Features

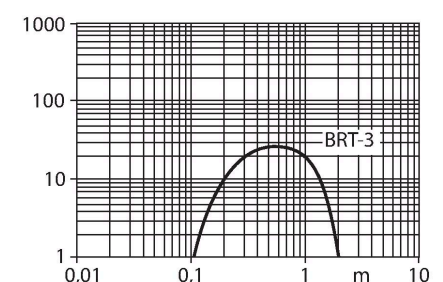
- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Selectable light/dark operation or light operation with alarm function

### 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

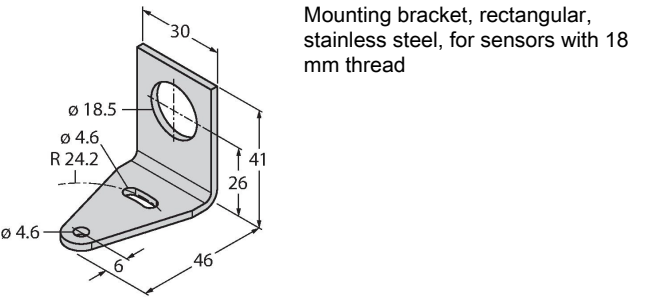


Technical data

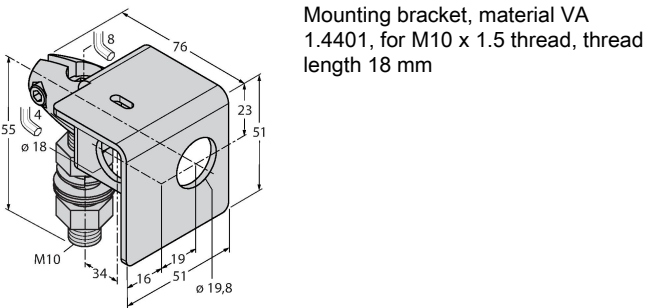
|                        |                           |
|------------------------|---------------------------|
| Special features       | Encapsulated<br>Wash down |
| Power-on indication    | LED, Green                |
| Switching state        | LED, Yellow               |
| Excess gain indication | LED                       |
| Tests/approvals        |                           |
| Approvals              | CE, UL, CSA               |

Accessories

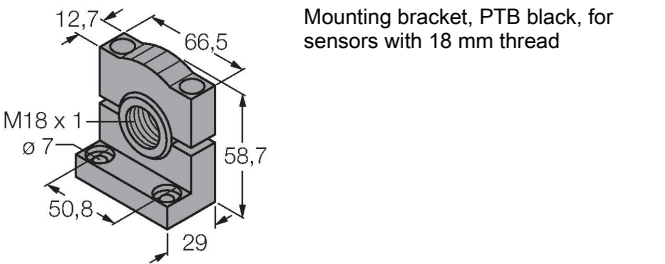
SMB18A 3033200



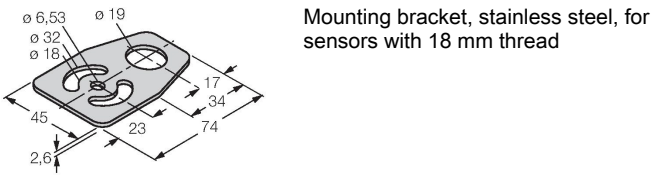
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SMB3018SC 3053952

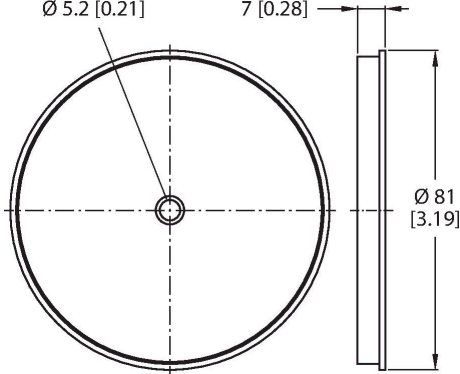


SMBAMS18P 3073134



Accessories

| Dimension drawing | Type  | ID      |
|-------------------|-------|---------|
|                   | BRT-3 | 3016164 |



Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C