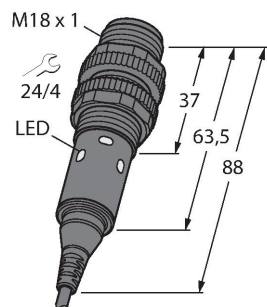


# M18-3VPLV-2M

## Photoelectric Sensor – Retroreflective Sensor



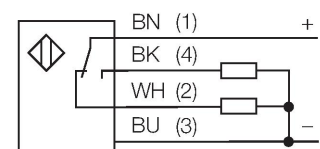
### Technical data

|                                |                            |
|--------------------------------|----------------------------|
| Type                           | M18-3VPLV-2M               |
| ID                             | 3092549                    |
| <b>Optical data</b>            |                            |
| Function                       | Retroreflective Sensor     |
| Operating mode                 | Unpolarized                |
| Reflector included in delivery | no                         |
| Light type                     | Red                        |
| Wavelength                     | 624 nm                     |
| Range                          | 150...7500 mm              |
| <b>Electrical data</b>         |                            |
| Operating voltage              | 10...30 VDC                |
| No-load current                | ≤ 16 mA                    |
| Short-circuit protection       | yes / Cyclic               |
| Reverse polarity protection    | yes                        |
| Output function                | Complementary contact, PNP |
| Readiness delay                | ≤ 100 ms                   |
| Response time typical          | < 1.5 ms                   |
| Setting option                 | Potentiometer              |
| <b>Mechanical data</b>         |                            |
| Design                         | Tube, M18                  |
| Dimensions                     | Ø 18 x 88 mm               |
| Housing material               | Metal, Nickel-plated brass |
| Lens                           | Acrylic                    |
| Electrical connection          | Cable, 2 m, PVC            |
| Number of cores                | 4                          |
| Core cross-section             | 0.5 mm <sup>2</sup>        |
| Ambient temperature            | -40...+70 °C               |

### Features

- Cable, 2 m
- Protection classes IP67 IP69K
- Ambient temperature: -40...+70 °C
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

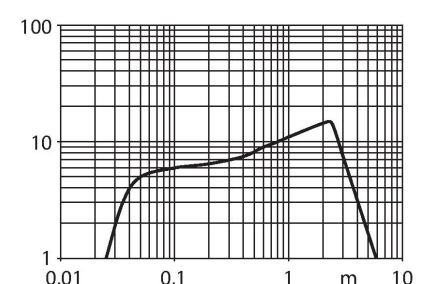
### Wiring diagram



### Functional principle

Retroreflective sensors have emitter and receiver incorporated in the same housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. A target is captured when it interrupts this beam. Retroreflective sensors have good contrast features and excess gain. Furthermore, only one device has to be installed and wired.

### Excess Gain Curve

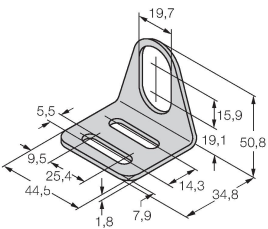


Technical data

|                        |                  |
|------------------------|------------------|
| Protection class       | IP67<br>IP69     |
| Special features       | Wash down        |
| Power-on indication    | LED, Green       |
| Switching state        | 2 × LEDs, Yellow |
| Error indication       | Flashing         |
| Excess gain indication | LED              |
| Alarm display          | Flashing         |
| Tests/approvals        |                  |
| Approvals              | CE, cULus        |

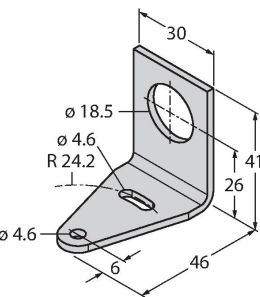
Accessories

MW-18 6945004



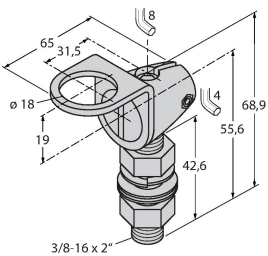
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

SMB18A 3033200



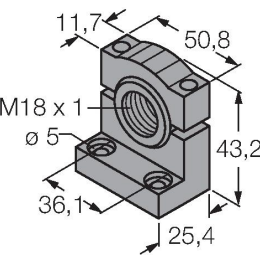
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18FAM10 3011184



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

SMB18SF 3052519



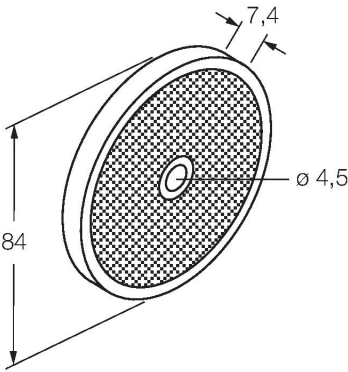
Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

SMBS18-2-1

3085931

Accessories

| Dimension drawing | Type   | ID      |                                                                                                   |
|-------------------|--------|---------|---------------------------------------------------------------------------------------------------|
|                   | BRT-84 | 3058979 | Round reflector, reflection coefficient 1.4, material acrylic, ambient temperature -20 ... +60 °C |



BRT-60X40C

3044997

Rectangular reflector, reflection coefficient 1.48, material: acrylic, ambient temperature -20...+60 °C

