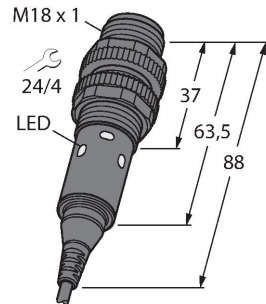


# S18-2VNLP-2M

## Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



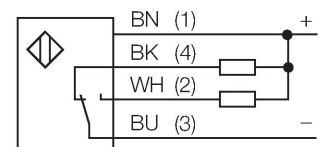
### Technical data

|                                |                                 |
|--------------------------------|---------------------------------|
| Type                           | S18-2VNLP-2M                    |
| ID                             | 3042140                         |
| <b>Optical data</b>            |                                 |
| Function                       | Retroreflective Sensor          |
| Operating mode                 | Polarized                       |
| Reflector included in delivery | no                              |
| Light type                     | Red polarized                   |
| Wavelength                     | 624 nm                          |
| Range                          | 150...6000 mm                   |
| <b>Electrical data</b>         |                                 |
| Operating voltage              | 10...30 VDC                     |
| Residual ripple                | < 10 % U <sub>ss</sub>          |
| No-load current                | ≤ 16 mA                         |
| Short-circuit protection       | yes / Cyclic                    |
| Reverse polarity protection    | yes                             |
| Output function                | Complementary contact, NPN      |
| Readiness delay                | ≤ 100 ms                        |
| Response time typical          | < 1.5 ms                        |
| <b>Mechanical data</b>         |                                 |
| Design                         | Tube, S18                       |
| Dimensions                     | Ø 18 x 88 mm                    |
| Housing material               | Plastic, Thermoplastic material |
| Lens                           | 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
- Visible red LED light
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

### Wiring diagram



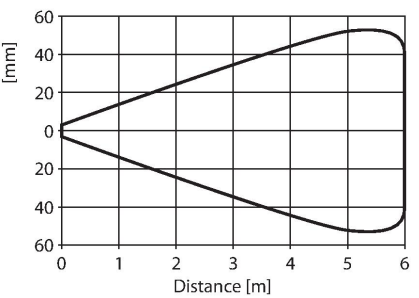
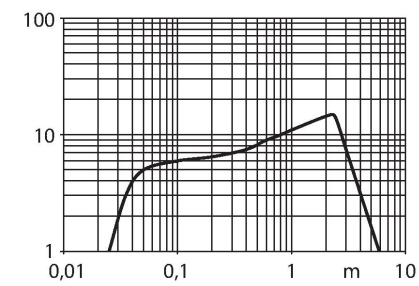
### Functional principle

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 detected when it interrupts this beam. Retroreflective sensors have a high function gain and good contrast performance. Furthermore, only one device has to be installed and wired.

Technical data

|                        |                  |
|------------------------|------------------|
| Ambient temperature    | -40...+70 °C     |
| Protection class       | IP67             |
| Power-on indication    | LED, Green       |
| Switching state        | 2 × LEDs, Yellow |
| Error indication       | Flashing         |
| Excess gain indication | LED              |
| Alarm display          | Flashing         |
| Tests/approvals        |                  |
| Approvals              | CE               |

Excess Gain Curve



Accessories

MW-186945004

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

BST-18N6947215

Mounting clamp for threaded barrel sensors, without dead-stop; material: PA6

Accessories

| Dimension drawing | Type          | ID      |                                                                                                                                                                                                                  |
|-------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | RKC4.5T-2/TEL | 6625016 | Connection cable, female M12, straight, 5-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> |
|                   | WKC4.5T-2/TEL | 6625028 | Connection cable, female M12, angled, 5-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>   |

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 |
|------------|---------|---------------------------------------------------------------------------------------------------------|

