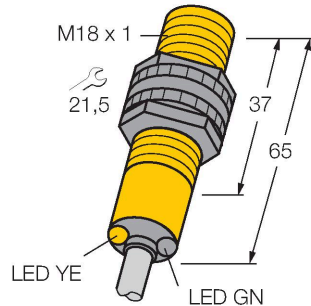


# S18AW3FF100 W/30

## Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



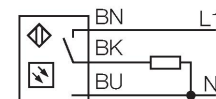
### Technical data

|                              |                                        |
|------------------------------|----------------------------------------|
| Type                         | S18AW3FF100 W/30                       |
| ID                           | 3032719                                |
| <b>Optical data</b>          |                                        |
| Function                     | Proximity switch                       |
| Operating mode               | Background suppression, non-adjustable |
| Light type                   | IR                                     |
| Wavelength                   | 880 nm                                 |
| Range                        | 0...100 mm                             |
| <b>Electrical data</b>       |                                        |
| Operating voltage            | 20...250 VAC                           |
| AC rated operational current | ≤ 200 mA                               |
| Output function              | Light 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 65 mm                           |
| Housing material             | Plastic, Thermoplastic material        |
| Lens                         | plastic, Acrylic                       |
| Electrical connection        | Cable, 9 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

### Wiring diagram



### Functional principle

The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

