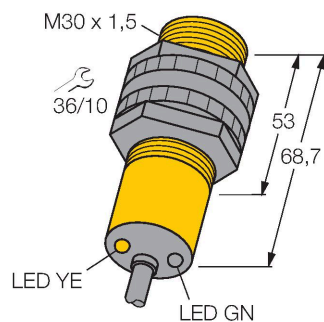


# S30SN6FF100

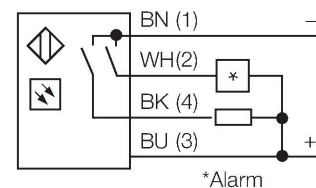
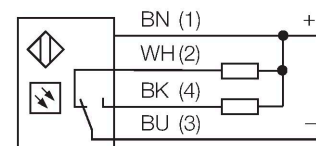
## Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



### Features

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

### Wiring diagram

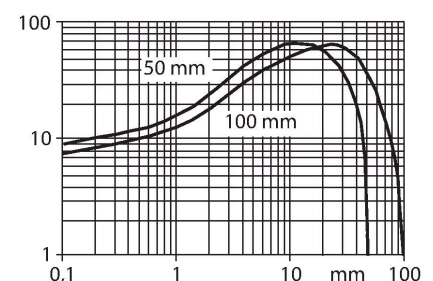


### Functional principle

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



### Technical data

|                             |                                                             |
|-----------------------------|-------------------------------------------------------------|
| Type                        | S30SN6FF100                                                 |
| ID no.                      | 3036768                                                     |
| <b>Optical data</b>         |                                                             |
| Function                    | Diffuse mode sensor with fixed-field background suppression |
| Light type                  | IR                                                          |
| Wavelength                  | 880 nm                                                      |
| Range                       | 0...100 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                      | Threaded barrel, S30                                        |
| Dimensions                  | Ø 30 x 68.7 mm                                              |
| Housing material            | Plastic, PBT                                                |
| Lens                        | plastic, Acrylic                                            |
| Electrical connection       | Cable, 2 m, PVC                                             |
| Number of cores             | 4                                                           |
| Core cross-section          | 0.5 mm <sup>2</sup>                                         |

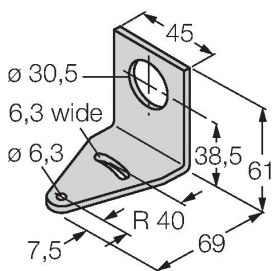
## Technical data

|                        |                                           |
|------------------------|-------------------------------------------|
| Ambient temperature    | -40...+70 °C                              |
| Protection class       | IP67                                      |
| Special features       | 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> |                                           |
| MTTF                   | 448 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, UL, CSA                               |

## Accessories

### SMB30A

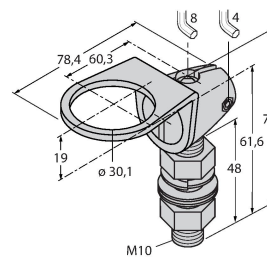
3032723



Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

### SMB30FAM10

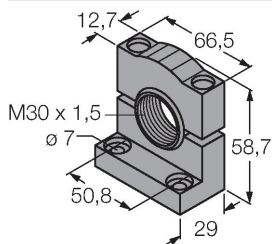
3011185



Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

### SMB30SC

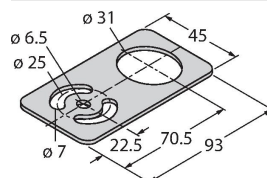
3052521



Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

### SMBAMS30P

3073135



Mounting bracket, stainless steel, for sensors with 30 mm thread