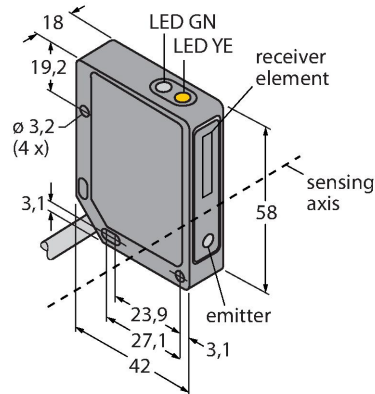


# QMT42VN6FF2000

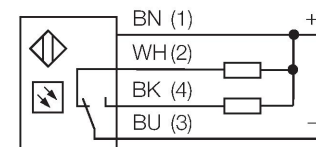
## Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



### Features

- Cable, PVC, 2 m, 4-wire
- Metal housing, ZN, black
- Protection class IP67
- Operating voltage 10...30 VDC
- NPN switching output
- Light/dark operation

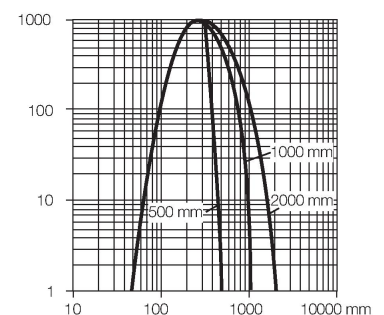
### Wiring diagram



### Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target position and the photoelectric structure of the sensor determine which of the receiving elements receives the most light. The sensor electronics determine whether the reflecting object is within or outside the measuring range. These sensors come with a fixed cut-off point.

Excess gain curve  
Excess gain in relation to the distance



### Technical data

|                              |                                            |
|------------------------------|--------------------------------------------|
| Type                         | QMT42VN6FF2000                             |
| ID no.                       | 3049235                                    |
| <b>Optical data</b>          |                                            |
| Function                     | Proximity switch                           |
| Operating mode               | Background suppression, non-adjustable     |
| Light type                   | IR                                         |
| Wavelength                   | 880 nm                                     |
| Range                        | 50...2000 mm                               |
| <b>Electrical data</b>       |                                            |
| Operating voltage            | 10...30 VDC                                |
| Residual ripple              | < 10 % U <sub>ss</sub>                     |
| DC rated operational current | ≤ 100 mA                                   |
| No-load current              | ≤ 50 mA                                    |
| Short-circuit protection     | yes                                        |
| Reverse polarity protection  | yes                                        |
| Output function              | NO/NC, NPN                                 |
| Switching frequency          | ≤ 500 Hz                                   |
| Readiness delay              | ≤ 100 ms                                   |
| Response time typical        | < 1 ms                                     |
| Overcurrent release          | > 150 mA                                   |
| <b>Mechanical data</b>       |                                            |
| Design                       | Rectangular, QMT42                         |
| Dimensions                   | 42 x 18 x 58 mm                            |
| Housing material             | Metal, Die-cast zinc alloy, Black-finished |
| Lens                         | plastic, Acrylic                           |
| Electrical connection        | Cable, 2 m, PVC                            |

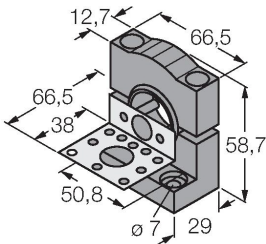
## Technical data

|                        |                      |
|------------------------|----------------------|
| Number of cores        | 4                    |
| Core cross-section     | 0.5 mm <sup>2</sup>  |
| Ambient temperature    | -20...+55 °C         |
| Protection class       | IP67                 |
| 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> |                      |
| Approvals              | CE, cURus            |

## Accessories

### SMB30SK

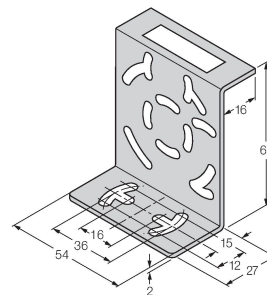
3052523



Mounting bracket, PBT black, with mounting plate, stainless steel, for types with 18 mm thread, QM42/QMT42

### SMB46S

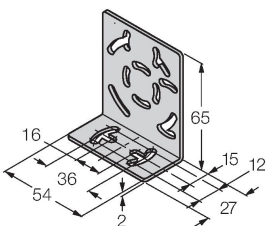
3048748



Mounting bracket, stainless steel, for QS18, QS30, MINI-BEAM, QM42/QMT42

### SMB46L

3048747



Mounting bracket, stainless steel, for QS18, QS30, MINI-BEAM, QM42/QMT42