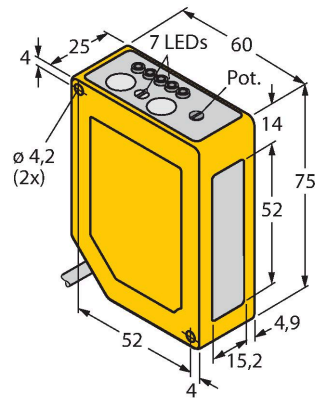


# BSO1L1.4M-Q60-ANP6X5

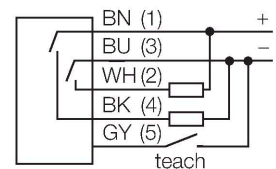
## Photoelectric Sensor – Diffuse Mode Laser Sensor with Adjustable Background Suppression



### Features

- Cable, PVC, 2 m
- Protection class IP67
- 5-segment LED display
- Signal indication
- Keylock
- Switch ON/OFF delay, adjustable between 8...16 ms
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

### Wiring diagram

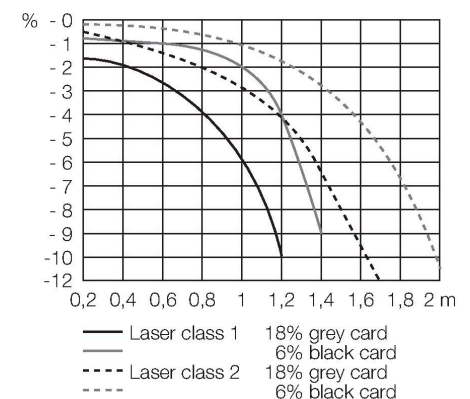


### Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target's position and the optical structure of the sensor determine which receiver element gets the most light. The sensor electronics then determine whether the reflecting target is in or outside the measuring range. The sensors are available with adjustable or fixed cut-off point.

#### Deviation curve

Deviation of the cut-off point of an 18 % grey or 6 % black target relative to the cut-off point of a white target



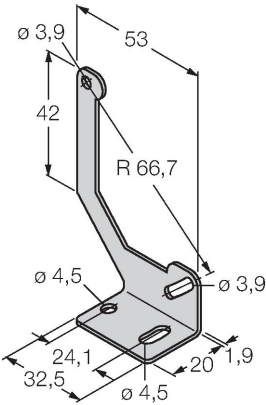
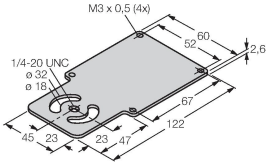
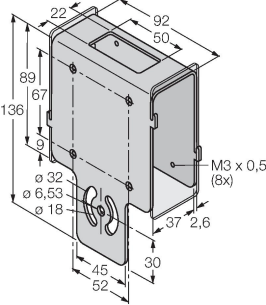
### Technical data

|                             |                                             |
|-----------------------------|---------------------------------------------|
| Type                        | BSO1L1.4M-Q60-ANP6X5                        |
| ID                          | 7700490                                     |
| Function                    | Laser-Reflexionslichttaster (Triangulation) |
| Light type                  | Red                                         |
| Wavelength                  | 650 nm                                      |
| Laser class                 | ▲ 1                                         |
| Range                       | 200...1400 mm                               |
| Operating voltage           | 10...30 VDC                                 |
| Residual ripple             | < 10 % U <sub>ss</sub>                      |
| No-load current             | ≤ 50 mA                                     |
| Reverse polarity protection | yes                                         |
| Output function             | NO contact, PNP/NPN                         |
| Switching frequency         | ≤ 250 Hz                                    |
| Design                      | Rectangular, Q60                            |
| Dimensions                  | 60 x 25 x 75 mm                             |
| Housing material            | Plastic, ABS, Yellow                        |
| Lens                        | plastic, Acryl                              |
| Electrical connection       | Cable, 2 m, PVC                             |
| Number of cores             | 5                                           |
| Core cross-section          | 0.5 mm <sup>2</sup>                         |
| Ambient temperature         | -10...+45 °C                                |
| Protection class            | IP67                                        |
| Special features            | Laser                                       |
| Power-on indication         | LED, Green                                  |
| Switching state             | LED, Yellow                                 |
| Error indication            | LED                                         |

Technical data

|                        |                                          |
|------------------------|------------------------------------------|
| Excess gain indication | LED, green, flashing                     |
| MTTF                   | 19 years acc. to SN 29500 (Ed. 99) 40 °C |

Accessories

|                                                                                     |                                                                |                                                                                    |                                            |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------|
| <b>TMBQ60</b>                                                                       | <b>7700419</b>                                                 | <b>TMBMSQ60</b>                                                                    | <b>7700418</b>                             |
|    | Mounting bracket, stainless steel, for Q60 series              |  | Backplane, stainless steel, for Q60 series |
| <b>TMBMSQ60E</b>                                                                    | <b>7700417</b>                                                 |                                                                                    |                                            |
|  | Protective housing with safety glass, stainless steel, for Q60 |                                                                                    |                                            |