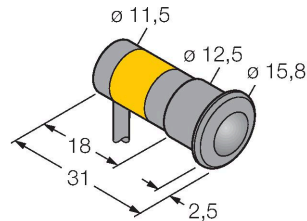


# SB12E1

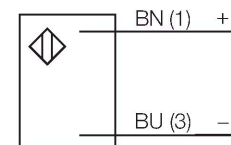
## Photoelectric Sensor – Opposed Mode Sensor (Emitter)



### Features

- Cable 2 m, 3-pin
- Supply voltage 10-30 VDC

### Wiring diagram



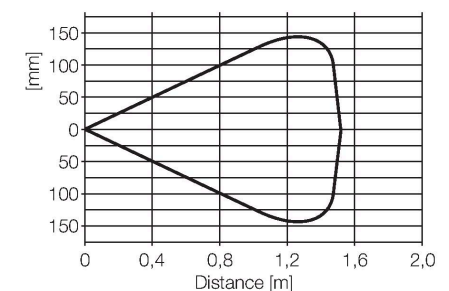
### Technical data

|                              |                                 |
|------------------------------|---------------------------------|
| Type                         | SB12E1                          |
| ID                           | 3081994                         |
| <b>Optical data</b>          |                                 |
| Function                     | Opposed mode sensor             |
| Operating mode               | Emitter                         |
| Light type                   | IR                              |
| Wavelength                   | 880 nm                          |
| Range                        | 0...1500 mm                     |
| <b>Electrical data</b>       |                                 |
| Operating voltage            | 10...30 VDC                     |
| DC rated operational current | ≤ 100 mA                        |
| No-load current              | ≤ 15 mA                         |
| Readiness delay              | ≤ 1000 ms                       |
| Response time typical        | < 2.5 ms                        |
| <b>Mechanical data</b>       |                                 |
| Design                       | Tube, SB12                      |
| Dimensions                   | Ø 12 x 30.5 mm                  |
| Housing material             | Plastic, Thermoplastic material |
| Lens                         | plastic, Polycarbonate          |
| Electrical connection        | Cable, 2 m, PVC                 |
| Number of cores              | 3                               |
| Core cross-section           | 0.34 mm <sup>2</sup>            |
| Ambient temperature          | -20...+50 °C                    |
| Protection class             | IP65                            |
| Power-on indication          | LED, Green                      |
| Error indication             | LED, green, Flashing            |
| Excess gain indication       | LED                             |

### Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite to each other whereby the emitted light aims directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. The excellent light/dark contrast and the high excess gain allow operation over larger distances and under difficult conditions.

### Excess Gain Curve



## Technical data

### Tests/approvals