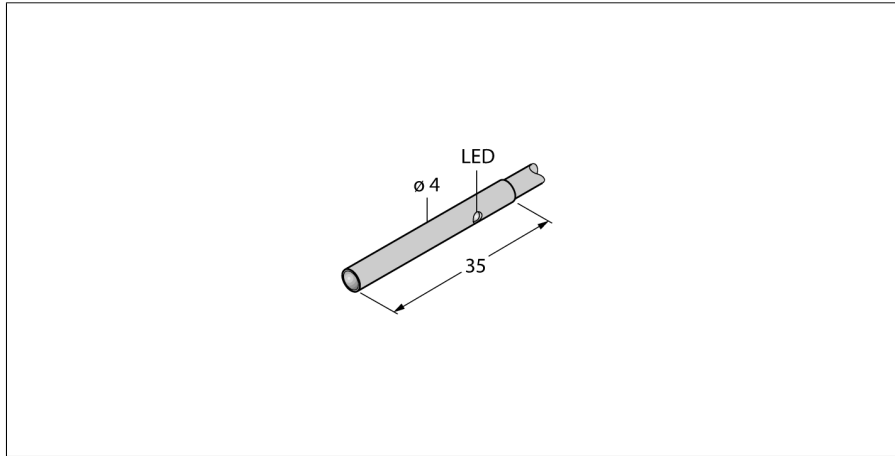
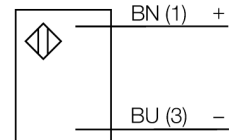


**Photoelectric sensor  
opposed mode sensor (emitter)  
miniature sensor  
VSM46E**



- Stainless steel housing V2A
- Protection class IP67
- Cable, 2 m, 2-wire
- Lens, sapphire crystal glass
- Operating voltage: 10...30 VDC

**Wiring diagram**

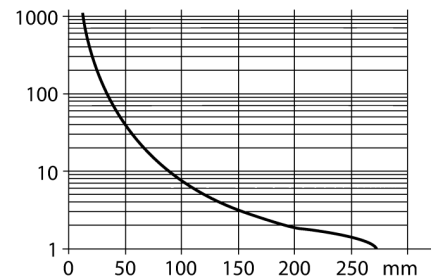


|                                |                               |
|--------------------------------|-------------------------------|
| <b>Type code</b>               | VSM46E                        |
| Ident no.                      | 3013286                       |
| <b>Operating mode</b>          | opposed mode sensor (emitter) |
| Light type                     | IR                            |
| Wavelength                     | 880 nm                        |
| Range                          | 0...250 mm                    |
| Ambient temperature            | 0...+55 °C                    |
| <b>Operating voltage</b>       | 10...30VDC                    |
| Residual ripple                | < 10 % U <sub>s</sub>         |
| No-load current I <sub>0</sub> | ≤ 15 mA                       |
| Reverse polarity protection    | yes                           |
| Readiness delay                | ≤ 20 ms                       |
| <b>Design</b>                  | smooth barrel, VSM            |
| Dimensions                     | 35 mm                         |
| Housing diameter               | 4 mm                          |
| Housing material               | metal, V2A (1.4301)           |
| Lens                           | glass, Sapphire               |
| Connection                     | cable, PVC                    |
| Cable length                   | 2 m                           |
| Cable cross section            | 2 x 0.34 mm <sup>2</sup>      |
| Protection class               | IP67                          |

**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**



**Photoelectric sensor  
opposed mode sensor (emitter)  
miniature sensor  
VSM46E**

**Wiring accessories**

| Type code   | Ident no. | Description   | Dimension drawing |
|-------------|-----------|---|-------------------|
| PKG3M-2/TEL | 6625058   | Connection cable, female M8, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |                   |
| PKW3M-2/TEL | 6625064   | Connection cable, female M8, angled, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>   |                   |