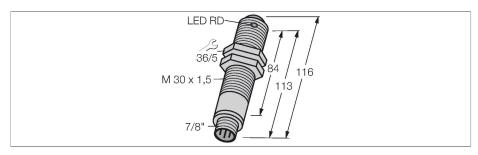


# SMA30PELQDC Photoelectric Sensor – Opposed Mode Sensor (Emitter)



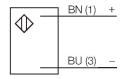
#### Technical data

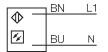
| Туре                         | SMA30PELQDC                     |  |  |
|------------------------------|---------------------------------|--|--|
| ID                           | 3032093                         |  |  |
| Optical data                 |                                 |  |  |
| Function                     | Opposed mode sensor             |  |  |
| Operating mode               | Emitter                         |  |  |
| Light type                   | IR                              |  |  |
| Wavelength                   | 950 nm                          |  |  |
| Range                        | 0150000 mm                      |  |  |
| Electrical data              |                                 |  |  |
| Operating voltage            | 1030 VDC                        |  |  |
| Operating voltage            | 12240 VAC                       |  |  |
| DC rated operational current | ≤ 20 mA                         |  |  |
| No-load current              | ≤ 20 mA                         |  |  |
| Readiness delay              | ≤ 0 ms                          |  |  |
| Mechanical data              |                                 |  |  |
| Design                       | Tube, SM30                      |  |  |
| Dimensions                   | Ø 30 x 116 mm                   |  |  |
| Housing material             | Plastic, Thermoplastic material |  |  |
| Lens                         | plastic, Acrylic                |  |  |
| Electrical connection        | Connector, 7/8", PVC            |  |  |
| Number of cores              | 3                               |  |  |
| Core cross-section           | 0.5 mm <sup>2</sup>             |  |  |
| Ambient temperature          | -40+70 °C                       |  |  |
| Storage temperature          | -40+70 °C                       |  |  |
| Relative humidity            | 090 %                           |  |  |
| Protection class             | IP67                            |  |  |
| Special features             | Encapsulated                    |  |  |
| Power-on indication          | LED, Green                      |  |  |
| Excess gain indication       | LED                             |  |  |
| Tests/approvals              |                                 |  |  |
| Approvals                    | CE, cURus, CSA                  |  |  |

## **Features**

- ■7/8" connector, 3-pin
- ■Protection class IP67
- ■Ambient temperature: -40 °C...+70 °C
- Modulation frequency C, requires receivers with the same frequency
- Operating voltage 10...30 VDC or 12...240 VAC

#### Wiring diagram







# Functional principle

Opposed mode sensors consist of an emitter and a 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 objects. The excellent light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions. Excess gain curve

Excess gain in relation to distance



# TURCK

### Accessories

| Dimension drawing | Туре       | ID      |   |
|-------------------|------------|---------|---|
|                   | SM30CC-306 | 3045133 | Connecting cable, PVC jacket, 2 m, 7/8" |
|                   |            |         | female connector, straight, 3-pin       |