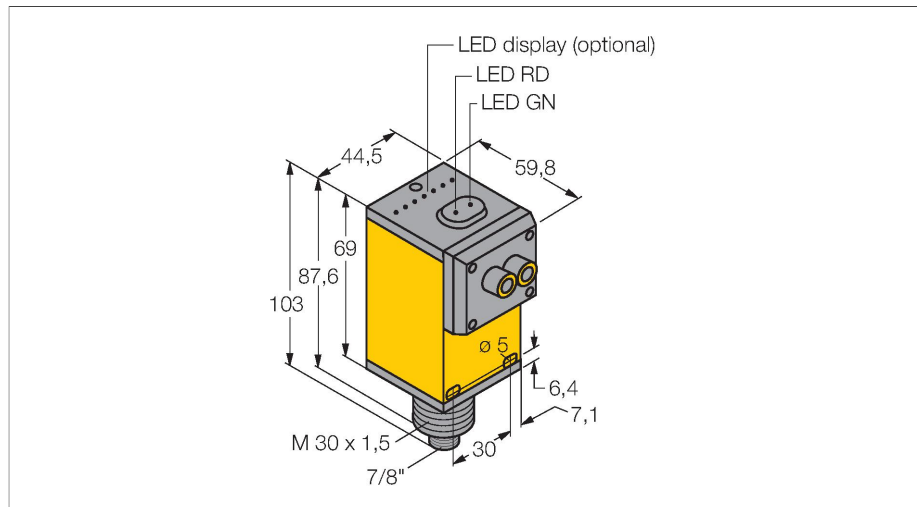


# Q45VR2FQ

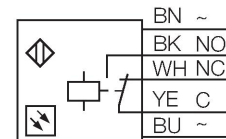
## Photoelectric Sensor – Photoelectric Sensor for Glass Fibers



### Features

- Male connector 7/8"
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Operating voltage: 90...250 VAC
- Relay output, changeover (SPDT)
- Light or dark operation, adjusted via selector switch

### Wiring diagram



### Technical data

|                        |                                     |
|------------------------|-------------------------------------|
| Type                   | Q45VR2FQ                            |
| ID                     | 3037005                             |
| <b>Optical data</b>    |                                     |
| Function               | Fiber optic sensor                  |
| Operating mode         | Glass fiber                         |
| Fiber-optic type       | glass                               |
| Light type             | IR                                  |
| Wavelength             | 880 nm                              |
| <b>Electrical data</b> |                                     |
| Operating voltage      | 90...250 VAC                        |
| No-load current        | ≤ 50 mA                             |
| Output function        | Complementary contact, Relay output |
| Readiness delay        | ≤ 100 ms                            |
| Response time typical  | < 15 ms                             |
| Setting option         | Potentiometer                       |
| <b>Mechanical data</b> |                                     |
| Design                 | Rectangular, Q45                    |
| Dimensions             | 60.5 x 44.5 x 101.6 mm              |
| Housing material       | Plastic, Thermoplastic material     |
| Lens                   | plastic, Acrylic                    |
| Electrical connection  | Connector, 7/8", PVC                |
| Number of cores        | 5                                   |
| Ambient temperature    | -40...+70 °C                        |
| Relative humidity      | 0...90 %                            |
| Protection class       | IP67                                |
| Special features       | keep/defer                          |

### Functional principle

Glass or fibre optic sensors are the optimum choice for high temperature or space restricted applications. Fibre optics transfer the light from the sensor to a remote object. Individual fibre optics are used for opposed mode sensing, whereas bifurcated fibre optics are suited for retro-reflective or diffuse mode operation.

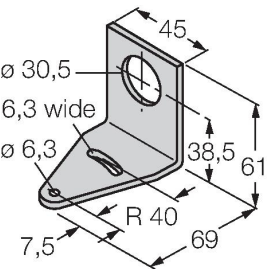
Excess gain curve  
Excess gain in relation to the distance

Technical data

|                        |                                          |
|------------------------|------------------------------------------|
|                        | Wash down                                |
| Power-on indication    | LED, Green                               |
| Switching state        | LED, Yellow                              |
| Error indication       | LED, green                               |
| Excess gain indication | LED, red                                 |
| Tests/approvals        |                                          |
| MTTF                   | 67 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, cURus, CSA                           |

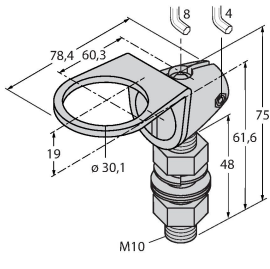
Accessories

SMB30A3032723



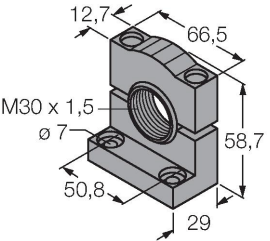
Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

SMB30FAM103011185



Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

SMB30SC3052521



Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

Accessories

Dimension drawing

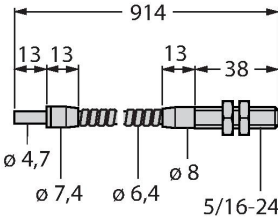
Type

ID

IT23S

3017355

Glass fiber, sensing mode: Opposed mode, threaded sleeve (brass), bundle diameter 3.2 mm, flexible stainless steel jacket, ambient temperatures -140... +250 °C



| Dimension drawing | Type  | ID      |                                                                                                                                                                |
|-------------------|-------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | BT23S | 3017276 | Glass fiber, sensing mode: Diffuse mode, threaded sleeve (brass), bundle diameter 3.2 mm, flexible stainless steel jacket, ambient temperatures -140...+250 °C |

