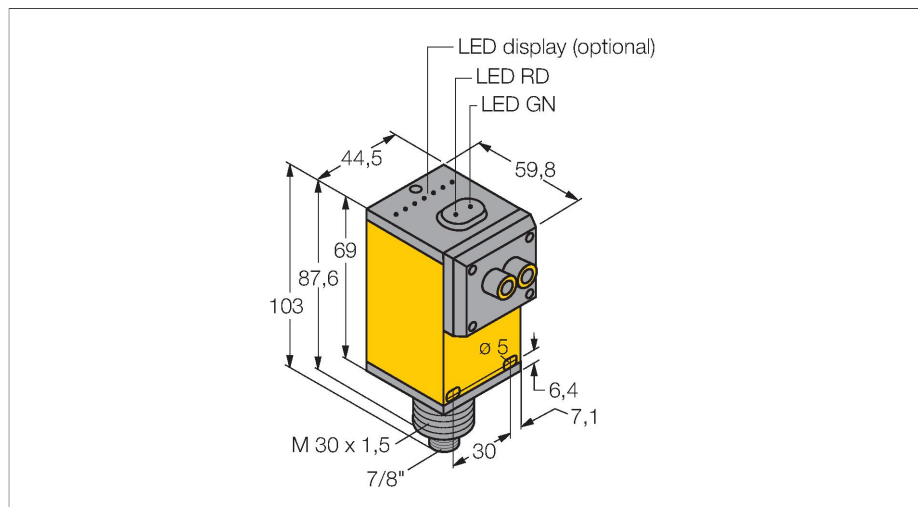


# Q45VR3FVQ

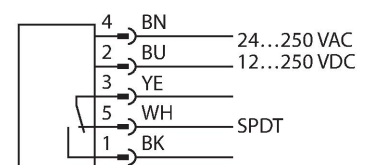
## Photoelectric Sensor – Photoelectric Sensor for Glass Fibers



### Features

- Male connector 7/8"
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Operating voltage: 12...250 VDC or 24...250 VAC
- Relay output, changeover (SPDT)
- Light or dark operation, adjusted via selector switch

### Wiring diagram



### Technical data

|                        |                                     |
|------------------------|-------------------------------------|
| Type                   | Q45VR3FVQ                           |
| ID                     | 3054313                             |
| <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      | 12...250 VDC                        |
| Operating voltage      | 24...250 VAC                        |
| Output function        | Complementary contact, Relay output |
| Switching frequency    | ≤ 33 Hz                             |
| 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    | -25...+55 °C                        |
| Relative humidity      | 0...90 %                            |
| Protection class       | IP67                                |

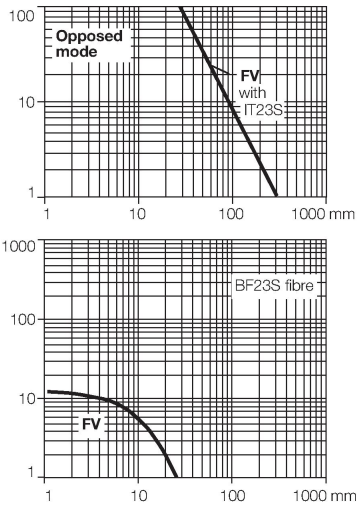
### Functional principle

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

|                        |                                          |
|------------------------|------------------------------------------|
| Special features       | keep/defer<br>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

SMB30A

3032723

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

SMB30FAM10

3011185

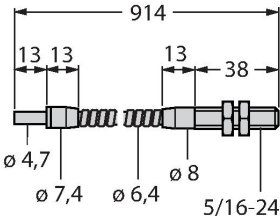
Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

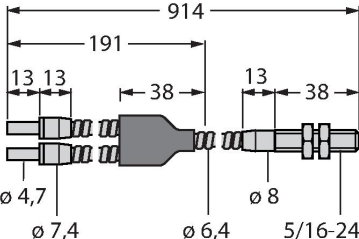
SMB30SC

3052521

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 |

|                                                                                    |       |         |                                                                                                                                                                |
|------------------------------------------------------------------------------------|-------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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 |
|------------------------------------------------------------------------------------|-------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|