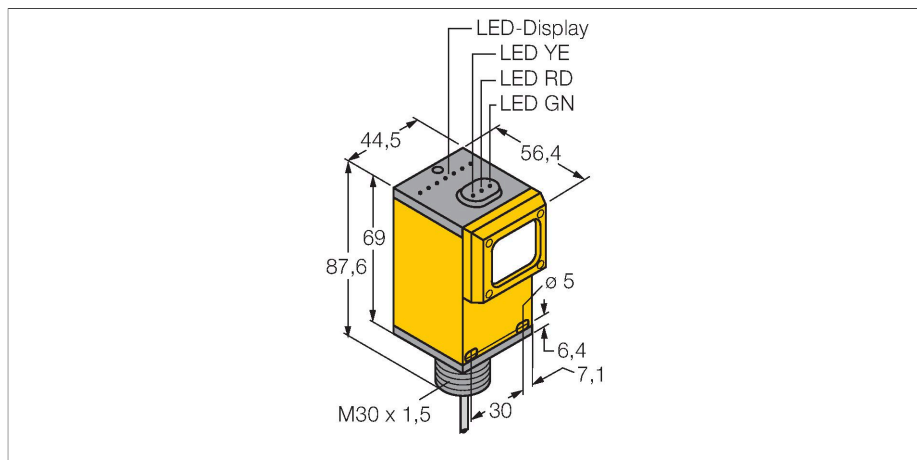


Q45AD9FV

Photoelectric Sensor – Photoelectric Sensor for Glass Fibers



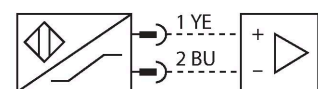
Technical data

| | |
|----------------------------------|---------------------------------|
| Type | Q45AD9FV |
| ID | 3058266 |
| Optical data | |
| Function | Fiber optic sensor |
| Operating mode | Glass fiber |
| Fiber-optic type | glass |
| Light type | IR |
| Wavelength | 880 nm |
| Electrical data | |
| Voltage | Nom. 8.2 VDC |
| Current consumption non-actuated | ≤ 1 mA |
| Actuated current consumption | ≥ 2.1 mA |
| No-load current | ≤ 2.1 mA |
| Output function | Light operation, NAMUR |
| Switching frequency | ≤ 100 Hz |
| Response time typical | < 5 ms |
| Setting option | Potentiometer |
| Mechanical data | |
| Design | Rectangular, Q45 |
| Dimensions | 56.4 x 44.5 x 87.6 mm |
| Housing material | Plastic, Thermoplastic material |
| Lens | plastic, Acrylic |
| Electrical connection | Cable, 2 m, PVC |
| Number of cores | 2 |
| Core cross-section | 0.34 mm ² |
| Ambient temperature | -40...+70 °C |
| Relative humidity | 0...90 % |

Features

- Cable, PVC, 2 m
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Operating voltage: 5...15 VDC
- NAMUR output: dark ≤ 1.2 mA ; light ≥ 2.1 mA
- Acc. to EN 60947-5-6 (NAMUR)

Wiring diagram



Functional principle

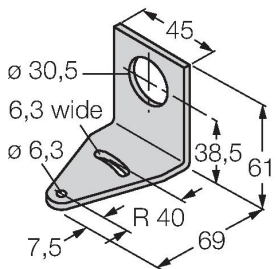
Glass or fibre optic sensors are the optimum choice for high temperature or space restricted applications. Fibre optics transfer the light from the sensor to a remote object. Individual fibre optics are used for opposed mode sensing, whereas bifurcated fibre optics are suited for retro-reflective or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

Technical data

| | |
|--|--|
| Protection class | IP67 |
| Special features | Wash down |
| Switching state | LED, Red |
| Excess gain indication | LED, flashing |
| Tests/approvals | |
| MTTF | 67 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals | CE, FM, CSA |
| Ignition protection category | Ex ia IIC T5 |
| Ex approval acc. to conformity certificate | FM12ATEX0094X |

Accessories

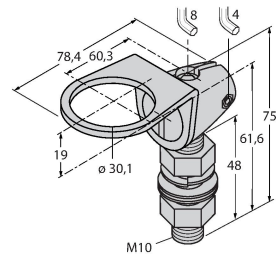
SMB30A 3032723



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

Dimensions: 45, 6,3 wide, 6,3, 38,5, 61, 69, 7,5, R 40, 30,5, 30,1

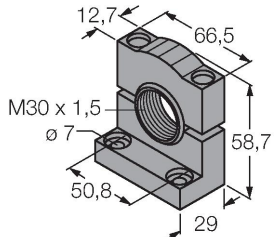
SMB30FAM10 3011185



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

Dimensions: 78,4, 60,3, 8, 4, 75, 61,6, 48, 19, 30,1, M10

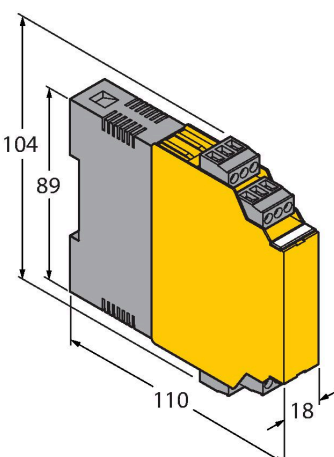
SMB30SC 3052521



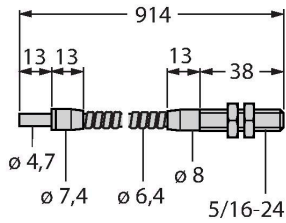
Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

Dimensions: 12,7, 66,5, 58,7, 29, 50,8, 7, M30 x 1,5, 30,1

Accessories

| Dimension drawing | Type | ID | |
|---|------------|---------|---|
|  | IM1-22EX-R | 7541231 | Isolating switching amplifier, 2-channel; 2 relay outputs; input NAMUR signal; selectable ON/OFF mode for wire-break and short-circuit monitoring; adjustable output mode (NO / NC mode); removable terminal blocks; width 18 mm; universal power supply unit |

| 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

