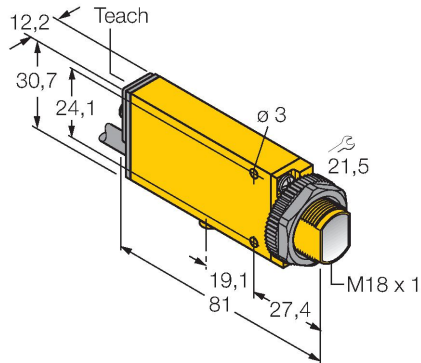


# SM2A312FVQDP

## Photoelectric Sensor – Photoelectric Sensor for Glass Fibers



### Features

- Cable, PVC, 2 m
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Alignment indicator
- Operating voltage: 24...240 VAC
- Switching output, bipolar
- Light/dark operation

### Wiring diagram



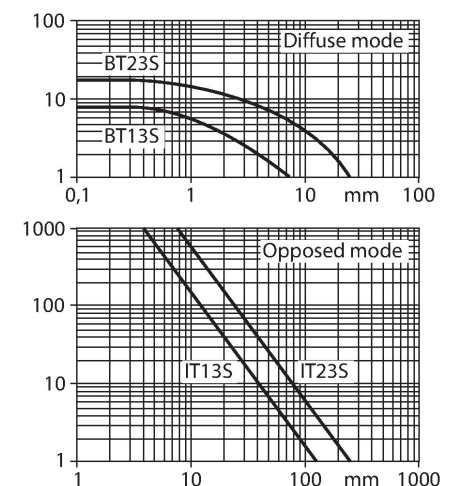
### Technical data

|                        |                                         |
|------------------------|-----------------------------------------|
| Type                   | SM2A312FVQDP                            |
| ID                     | 3029566                                 |
| <b>Optical data</b>    |                                         |
| Function               | Fiber optic sensor                      |
| Operating mode         | Glass fiber                             |
| Fiber-optic type       | glass                                   |
| Light type             | Red                                     |
| Wavelength             | 650 nm                                  |
| <b>Electrical data</b> |                                         |
| Operating voltage      | 24...240 VAC                            |
| Output function        | Relay output                            |
| Readiness delay        | ≤ 300 ms                                |
| Response time typical  | < 8 ms                                  |
| Setting option         | Potentiometer                           |
| <b>Mechanical data</b> |                                         |
| Design                 | Rectangular with thread, Mini Beam      |
| Housing material       | Plastic, Thermoplastic material, Yellow |
| Lens                   | plastic, Acrylic                        |
| Electrical connection  | Cable with connector, 1/2", 0.15 m, PVC |
| Number of cores        | 3                                       |
| Ambient temperature    | -20...+70 °C                            |
| Relative humidity      | 0...90 %                                |
| Protection class       | IP67                                    |
| Special features       | Wash down                               |
| Excess gain indication | LED                                     |
| <b>Tests/approvals</b> |                                         |
| Approvals              | CE, cURus, CSA                          |

### Functional principle

Glass or plastic fibers are the optimum choice for high-temperature applications and limited spaces. Optical fibers transfer the light from the sensor to a remote object. Individual fibers are used for opposed sensing mode, whereas bifurcated fibers are suited for diffuse sensing mode.

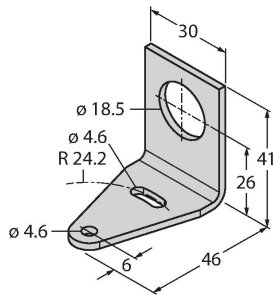
Excess gain curve  
Excess gain in relation to distance



## Accessories

## SMB18A

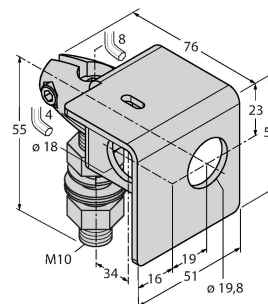
3033200



Mounting bracket, rectangular,  
stainless steel, for sensors with 18  
mm thread

## SMB18AFAM10

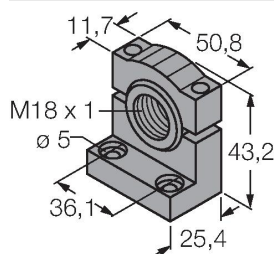
3012558



Mounting bracket, material VA  
1.4401, for M10 x 1.5 thread, thread  
length 18 mm

## SMB18SF

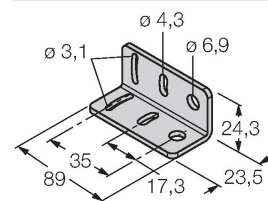
3052519



Mounting bracket, PBT black, for  
sensors with 18 mm thread, rotatable

## SMB312B

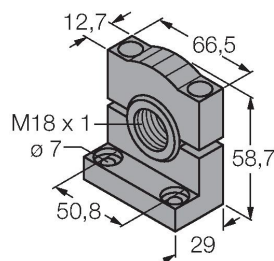
3025519



Mounting bracket, stainless steel, for  
MINI-BEAM NAMUR

## SMB3018SC

3053952



Mounting bracket, PTB black, for  
sensors with 18 mm thread

## Accessories

| 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 |

| 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 |

