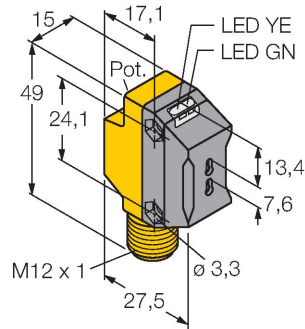


# QS18VN6FPQ8

## Photoelectric Sensor – Photoelectric Sensor for Plastic Fibers



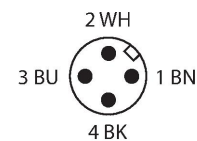
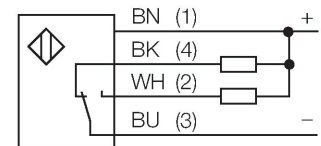
### Technical data

|                              |                          |
|------------------------------|--------------------------|
| Type                         | QS18VN6FPQ8              |
| ID no.                       | 3066467                  |
| <b>Optical data</b>          |                          |
| Function                     | Retroreflective Sensor   |
| Operating mode               | Polarized                |
| Fiber-optic type             | plastic                  |
| Light type                   | Red                      |
| Wavelength                   | 660 nm                   |
| Range                        | 3500 mm                  |
| <b>Electrical data</b>       |                          |
| Operating voltage            | 10...30 VDC              |
| Residual ripple              | < 10 % U <sub>ss</sub>   |
| DC rated operational current | ≤ 100 mA                 |
| Short-circuit protection     | yes                      |
| Reverse polarity protection  | yes                      |
| Output function              | NO/NC, NPN               |
| Current output               | 100 mA                   |
| Switching frequency          | ≤ 800 Hz                 |
| Readiness delay              | ≤ 100 ms                 |
| Response time typical        | < 0.6 ms                 |
| Setting option               | Potentiometer            |
| <b>Mechanical data</b>       |                          |
| Design                       | Rectangular, QS18        |
| Dimensions                   | Ø 18 x 27.5 x 15 x 49 mm |
| Housing material             | Plastic, ABS             |
| Lens                         | Acrylic                  |
| Electrical connection        | Connectors, M12 × 1, PVC |

### Features

- Male M12 × 1, 4-pin
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

### Wiring diagram



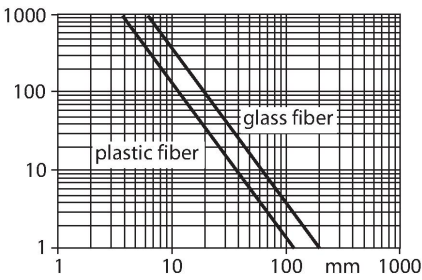
### Functional principle

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

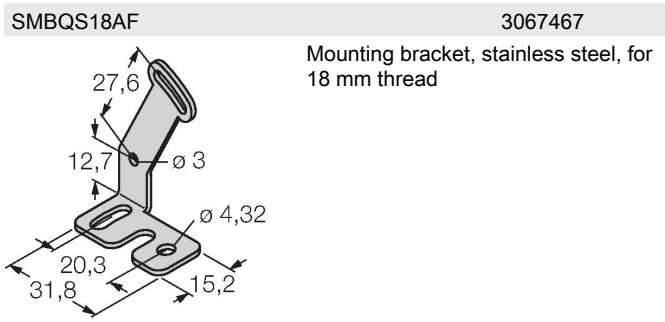
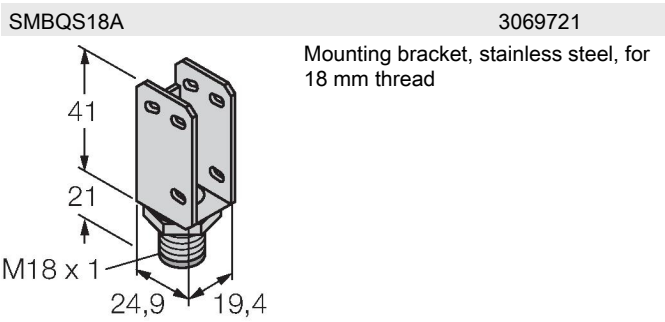
Excess gain curve  
Excess gain in relation to the distance for opposed mode sensor (glass fibers IT23S and plastic fibers PIT46U)

Technical data

|                        |                                           |
|------------------------|-------------------------------------------|
| Number of cores        | 4                                         |
| Ambient temperature    | -20...+70 °C                              |
| Protection class       | IP67                                      |
| Power-on indication    | LED, Green                                |
| Switching state        | LED, Yellow                               |
| Error indication       | LED, green, Flashing                      |
| Excess gain indication | LED, yellow, flashing                     |
| Tests/approvals        |                                           |
| MTTF                   | 965 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, cURus                                 |



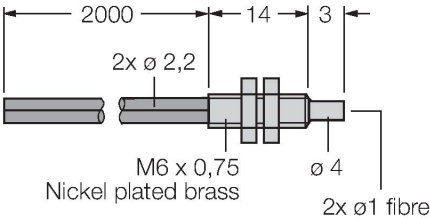
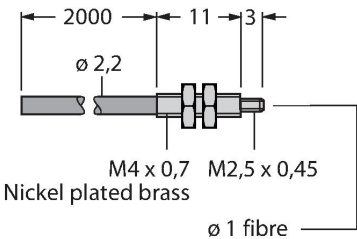
Accessories



Accessories

| Dimension drawing                                                                 | Type          | ID no.  |                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | RKC4.4T-2/TEL | 6625013 | Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |
|  | WKC4.4T-2/TEL | 6625025 | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>   |

Accessories

| Dimension drawing                                                                   | Type   | ID no.  |                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|--------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | PBT46U | 3025967 | Plastic fiber-optic sensor, operating mode: Diffuse mode, threaded sleeve M3 x 0.75 mm, field wireable wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C |
|  | PIT46U | 3026034 | Plastic fiber-optic sensor, operating mode: Opposed mode, threaded sleeve M3 x 0.5 mm, field wireable wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C  |