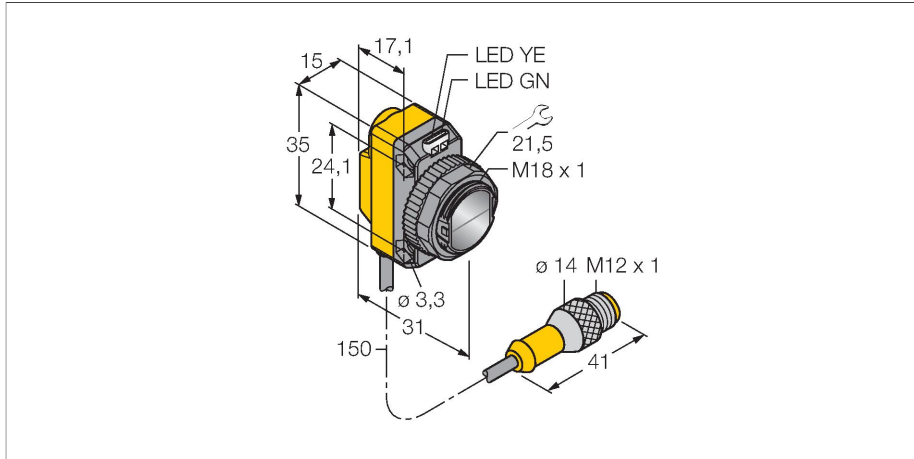


# QS186LE212Q5

## Photoelectric Sensor – Laser Emitter



### Technical data

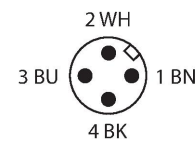
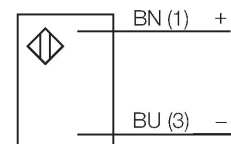
|                              |                                            |
|------------------------------|--------------------------------------------|
| Type                         | QS186LE212Q5                               |
| ID                           | 3074318                                    |
| <b>Optical data</b>          |                                            |
| Function                     | Opposed mode sensor                        |
| Operating mode               | Laser Emitter                              |
| Light type                   | IR                                         |
| Wavelength                   | 650 nm                                     |
| Range                        | 0...15000 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                                        |
| Readiness delay              | ≤ 10 ms                                    |
| <b>Mechanical data</b>       |                                            |
| Design                       | Rectangular with thread, QS18              |
| Dimensions                   | Ø 18 x 31 x 15 x 35 mm                     |
| Housing material             | Plastic, ABS                               |
| Lens                         | plastic, PMMA                              |
| Electrical connection        | Cable with connector, M12 × 1, 0.15 m, PVC |
| Number of cores              | 4                                          |
| Ambient temperature          | -10...+50 °C                               |
| Protection class             | IP67                                       |
| Special features             | Laser                                      |
| Power-on indication          | LED, Green                                 |



### Features

- Cable with male end, M12 × 1, 4-pin, PVC, 150 mm
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC

### Wiring diagram



### Functional principle

Opposed mode sensors consist of an emitter and a receiver. They are installed opposite to each other whereby the emitted light aims directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque objects. The high light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions.

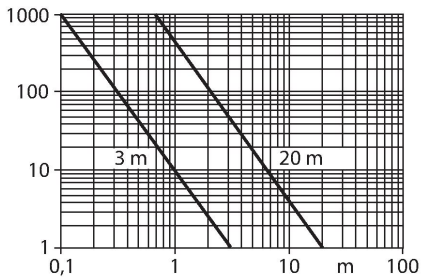
#### Activation

By connecting the control input (PIN 2 WH) to ground (-) the laser beam is turned on. The laser beam is turned off again by feeding 10 ... 30 VDC to the control input or by non-connecting the wire.

Technical data

|                        |                                           |
|------------------------|-------------------------------------------|
| Excess gain indication | LED                                       |
| Tests/approvals        |                                           |
| MTTF                   | 530 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, cURus                                 |

Excess gain curve  
Excess gain in relation to the distance (type 6EB/RB)



Accessories

SMB18A3033200

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

SMB18AFAM103012558

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

SMBQS18A3069721

Mounting bracket, stainless steel, for 18 mm thread

SMB18SF3052519

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

Accessories

| Dimension drawing | Type          | ID      |                                                                                                                                                                                                                  |
|-------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | 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> |

| Dimension drawing                                                                 | Type          | ID      |                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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> |