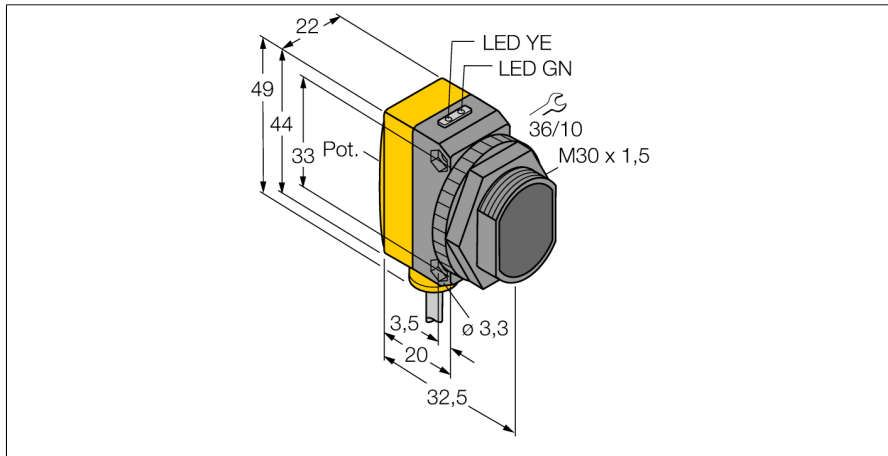
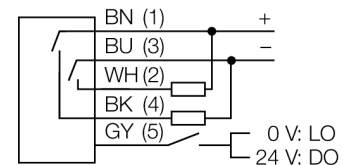


**Photoelectric sensor  
retroreflective sensor with polarizing filter  
QS30LP**



- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

**Wiring diagram**



|                  |         |
|------------------|---------|
| <b>Type code</b> | QS30LP  |
| Ident no.        | 3072544 |

|                       |  |
|-----------------------|--|
| <b>Operating mode</b> | retro-reflective sensor with polarisation filter |
| Light type            | red  |
| Wavelength            | 630 nm   |
| Range                 | 0...8000 mm                                      |
| Ambient temperature   | -20...+70 °C                                     |

|                                |                       |
|--------------------------------|-----------------------|
| <b>Operating voltage</b>       | 10...30VDC            |
| Residual ripple                | < 10 % U <sub>s</sub> |
| DC rated operational current   | ≤ 150 mA              |
| No-load current I <sub>0</sub> | ≤ 35 mA               |
| Short-circuit protection       | yes                   |
| Reverse polarity protection    | yes                   |
| Output function                | NO contact, PNP/NPN   |
| Switching frequency            | ≤ 33 Hz               |
| Readiness delay                | ≤ 100 ms              |

|                     |                         |
|---------------------|-------------------------|
| <b>Design</b>       | rectangular, QS30       |
| Dimensions          | 35 x 22 x 49 mm         |
| Housing material    | plastic, ABS, yellow    |
| Lens                | plastic, acrylic        |
| Connection          | cable, PVC              |
| Cable length        | 2 m                     |
| Cable cross section | 5 x 0.5 mm <sup>2</sup> |
| Protection class    | IP67                    |

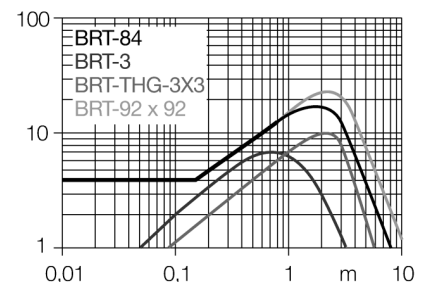
|                            |                    |
|----------------------------|--------------------|
| <b>Power-on indication</b> | LED green          |
| Switching state            | LED yellow         |
| Error indication           | LED green flashing |
| Excess gain indication     | LED yellow         |

**Functional principle**

Retro-reflective sensors incorporate emitter and receiver in the same compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors incorporate some of the advantages of opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

**Excess gain curve**

Excess gain in relation to the distance

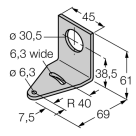
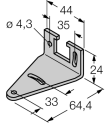
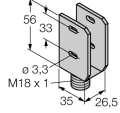
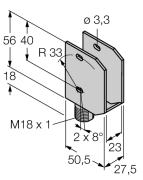


**Photoelectric sensor  
retroreflective sensor with polarizing filter  
QS30LP**

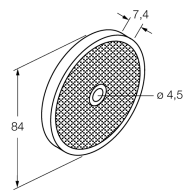
**TURCK**

Industrial  
Automation

**Accessories**

| Type code | Ident no. | Description   | Dimension drawing   |
|-----------|-----------|---|---|
| SMB30A    | 3032723   | Mounting bracket, stainless steel, for sensors with 30 mm thread            |    |
| SMBQS30L  | 3002809   | Mounting bracket, stainless steel, for QS30 series                          |    |
| SMBQS30Y  | 3002811   | Protective housing, stainless steel, for QS30 series                        |  |
| SMBQS30YL | 3072741   | Protective housing with safety glas panel, stainless steel, for QS30 series |  |

**Function accessories**

| Type code | Ident no. | Description   | Dimension drawing   |
|-----------|-----------|---|---|
| BRT-84    | 3058979   | Round reflector, reflection coefficient 1.4, material acrylic, ambient temperature -20 ... +60 °C |  |