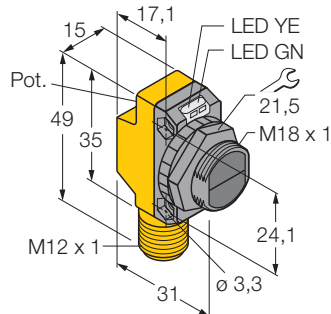


# photoelectric sensor

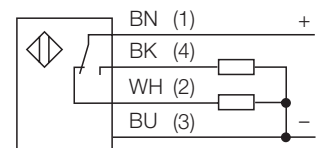
## diffuse mode sensor with background suppression

### QS18VP6FF50Q8



- Operating voltage 10...30 VDC
- indication of insufficient excess gain
- LED visible from all sides
- light/dark operation
- M12 x 1 male connector

#### Wiring diagram

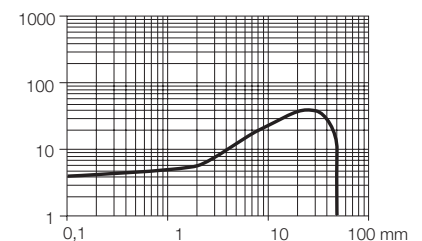


#### Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target position and the photoelectric structure of the sensor determine which of the receiving elements receives the most light. The sensor electronics determine whether the reflecting object is within or outside the measuring range. These sensors come with a fixed cut-off point.

#### Excess gain curve

Excess gain in relation to the distance



|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| <b>Type</b>                      | QS18VP6FF50Q8                                               |
| Ident-No.                        | 3071755                                                     |
| <b>Operating mode</b>            | diffuse mode sensor with fixed-field background suppression |
| Light type                       | red                                                         |
| Wavelength                       | 660 nm                                                      |
| Max. sensing range [mm]          | 0... 50 mm                                                  |
| Ambient temperature              | -20...+ 70 °C                                               |
| <b>Operating voltage</b>         | 10... 30VDC                                                 |
| DC rated operational current     | ≤ 100 mA                                                    |
| No-load current I <sub>0</sub>   | ≤ 32 mA                                                     |
| Short-circuit protection         | yes / cyclic                                                |
| Reverse polarity protection      | yes                                                         |
| Output function                  | normally open / normally closed, pnp                        |
| Switching frequency              | ≤ 625 Hz                                                    |
| Readiness delay                  | ≤ 100 ms                                                    |
| <b>Housing</b>                   | rectangular, QS18                                           |
| Dimensions                       | 31 x 15 x 35 mm                                             |
| Housing material                 | plastic, ABS                                                |
| Lens                             | plastic, acrylic                                            |
| Connection                       | Connectors, M12 x 1                                         |
| Degree of protection             | IP67                                                        |
| <b>Operating voltage display</b> | LED green                                                   |
| Display switch state             | LED yellow                                                  |
| Error indication                 | LED green flashing                                          |
| Excess gain indication           | LED yellow flashing                                         |