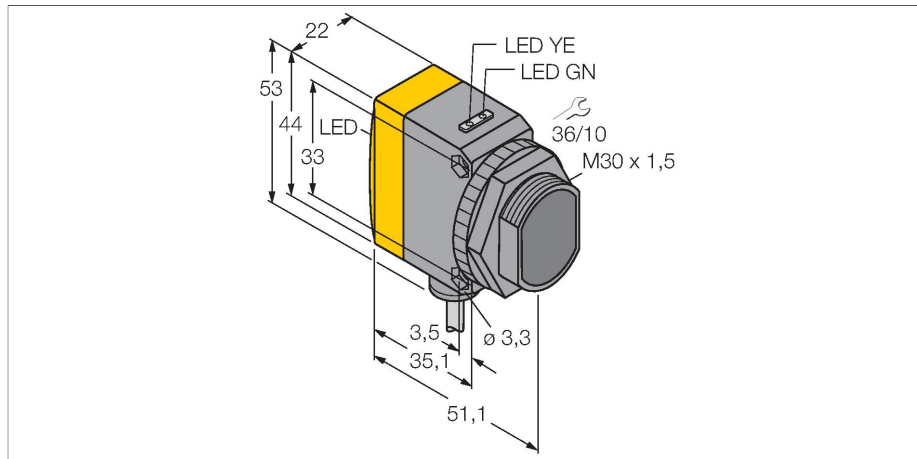


# QS30VR3FF200

## Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



### Technical data

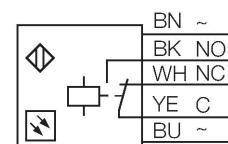
|                        |                                         |
|------------------------|-----------------------------------------|
| Type                   | QS30VR3FF200                            |
| ID                     | 3072547                                 |
| <b>Optical data</b>    |                                         |
| Function               | Proximity switch                        |
| Operating mode         | Background suppression, non-adjustable  |
| Light type             | Red                                     |
| Wavelength             | 680 nm                                  |
| Range                  | 0...200 mm                              |
| <b>Electrical data</b> |                                         |
| Operating voltage      | 12...250 VDC                            |
| Operating voltage      | 24...250 VAC                            |
| No-load current        | ≤ 35 mA                                 |
| Output function        | NO/NC, Relay output                     |
| Switching frequency    | ≤ 33 Hz                                 |
| Readiness delay        | ≤ 100 ms                                |
| Response time typical  | < 15 ms                                 |
| <b>Mechanical data</b> |                                         |
| Design                 | Rectangular with thread, QS30           |
| Dimensions             | Ø 30 x 51.5 x 22 x 44 mm                |
| Housing material       | Plastic, Thermoplastic material, Yellow |
| Lens                   | plastic, Acrylic                        |
| Electrical connection  | Cable, 2 m, PVC                         |
| Number of cores        | 5                                       |
| Core cross-section     | 0.5 mm <sup>2</sup>                     |
| Ambient temperature    | -40...+70 °C                            |
| Protection class       | IP67                                    |



### Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Operating voltage: 12...250 VDC or 24...250 VAC
- Relay output, changeover

### Wiring diagram



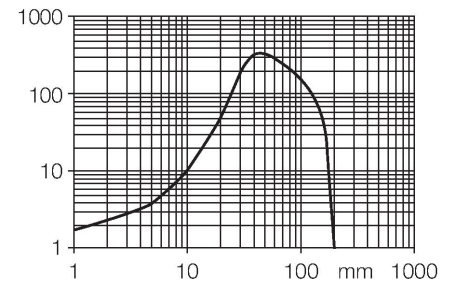
### Functional principle

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

## Technical data

|                        |                                           |
|------------------------|-------------------------------------------|
| Power-on indication    | LED, Green                                |
| Switching state        | LED, Yellow                               |
| Excess gain indication | LED, yellow, flashing                     |
| <b>Tests/approvals</b> |                                           |
| MTTF                   | 177 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE                                        |



## Accessories

