QS30VR3FF200
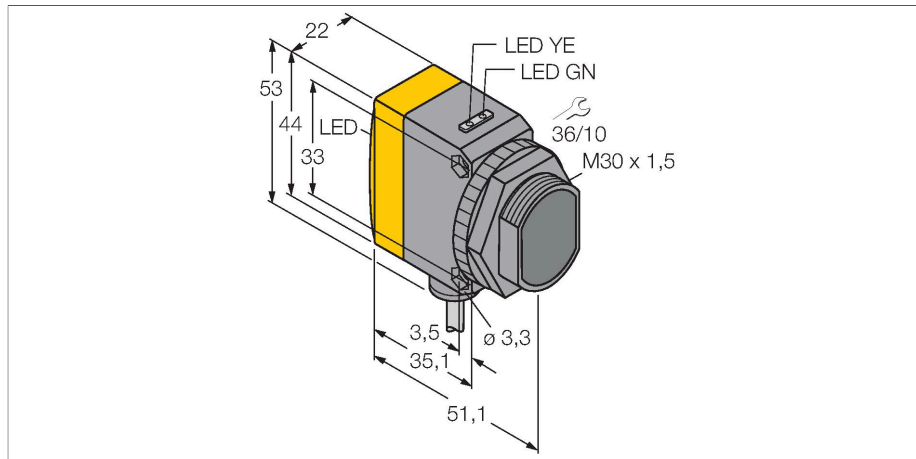## Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression

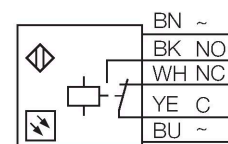## Technical data

Type	QS30VR3FF200
ID no.	3072547
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	Red
Wavelength	680 nm
Range	0…200 mm
Electrical data	
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
Mechanical data	
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^2
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
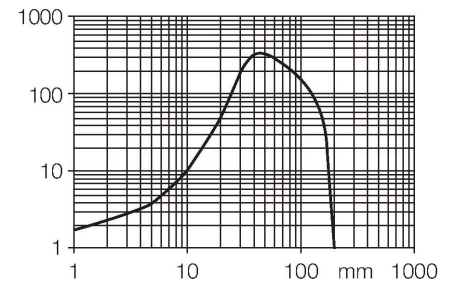- Relay output, changeover

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
Tests/approvals	
MTTF	177 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

Accessories

SMBQS30Y	3002811

Protective housing, stainless steel, for QS30 series

SMBQS30YL	3072741

Protective housing with safety glas panel, stainless steel, for QS30 series

SMB30A	3032723

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

SMBQS30L	3002809

Mounting bracket, stainless steel, for QS30 series

SMB30MM	3027162

Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment

SMB30SC	3052521

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable