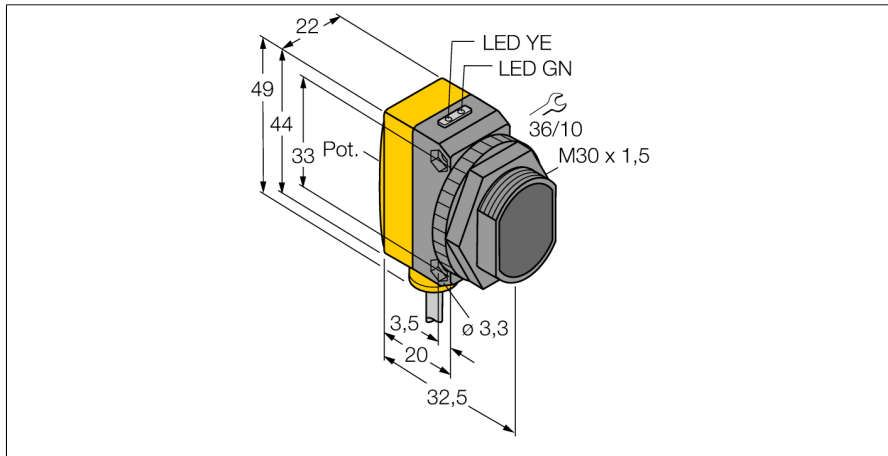
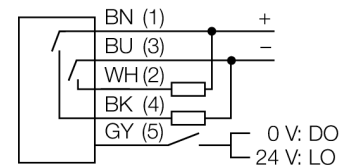


**Photoelectric sensor  
diffuse mode sensor  
QS30D**



- 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**



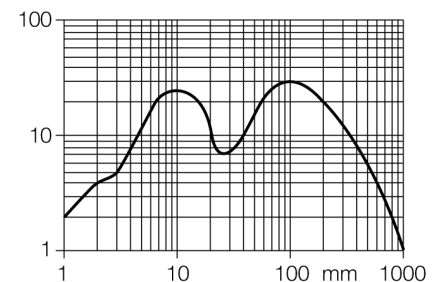
<b>Type code</b>	QS30D
Ident no.	3072604
<b>Operating mode</b>	diffuse mode sensor
Light type	IR
Wavelength	940 nm
Range	2...1000 mm
Ambient temperature	-20...+70 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	< 10 % U <sub>s</sub>
DC rated operational current	≤ 150 mA
No-load current I <sub>0</sub>	≤ 35 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 250 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
MTTF	280 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED green flashing
Excess gain indication	LED yellow

**Functional principle**

Identical to retro-reflective sensors, emitter and receiver circuitry are incorporated in the same housing of the diffuse mode sensors. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the target. A target is detected if it reflects sufficient light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target.

**Excess gain curve**

Excess gain in relation to the distance



Photoelectric sensor  
diffuse mode sensor  
QS30D

**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 glass panel, stainless steel, for QS30 series	