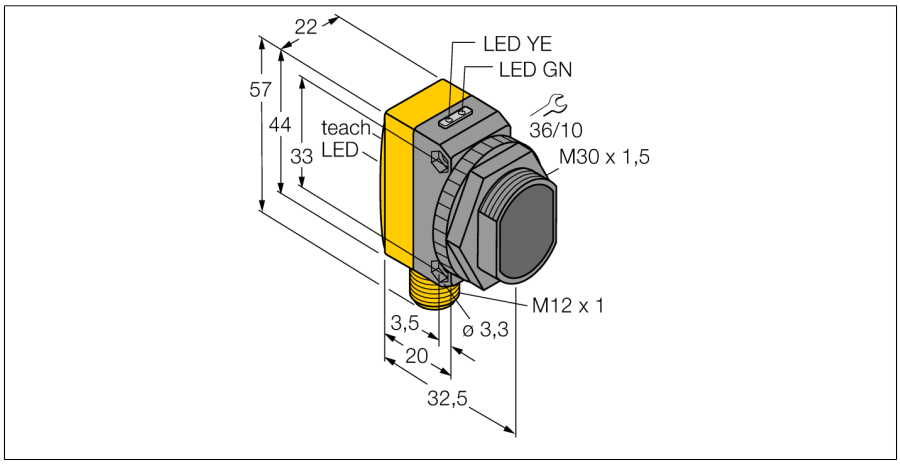
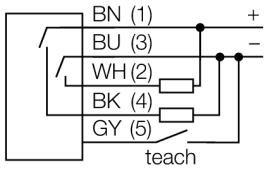
Photoelectric sensor
diffuse mode sensor
QS30LDQ

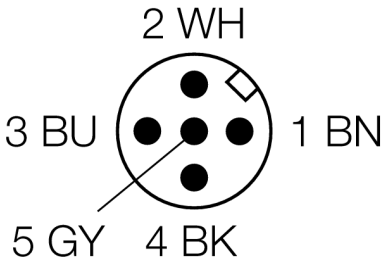
Industrial Automation



- **Male M12 x 1, 5-pin**
- **Protection class IP67**
- **LED all-round visible**
- **Teach button**
- **8-segment bargraph**
- **Operating voltage: 10…30 VDC**
- **Switching output, bipolar**
- **Light or dark operation**

Wiring diagram





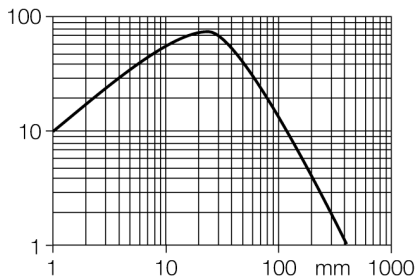
Type code	QS30LDQ
Ident no.	3070231
Operating mode	Diffuse mode laser sensor (triangulation)
Light type	red
Wavelength	650 nm
Laser class	⚠ 1
Beam diameter	2 mm
Range	0…400 mm
Ambient temperature	-10…+50 °C
Operating voltage	10…30VDC
Residual ripple	< 10 % U_{ss}
DC rated operational current	≤ 150 mA
No-load current I_0	≤ 35 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 1000 Hz
Readiness delay	≤ 1 s
Design	rectangular, QS30
Dimensions	35 x 22 x 57 mm
Housing material	plastic, ABS, yellow
Lens	plastic, acrylic
Connection	male, M12 x 1
Protection class	IP67
MTTF	28 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED green flashing
Excess gain indication	LED red flashing

Functional principle

The emitter and receiver are incorporated in the same housing. The light reflection of the target is detected and causes the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance



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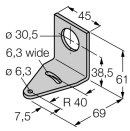
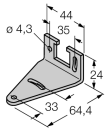
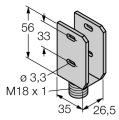
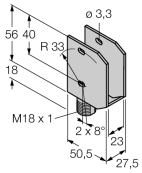
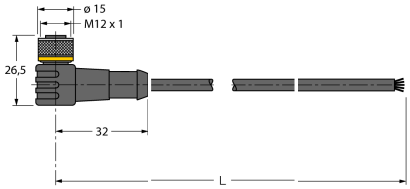
Accessories

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	

Wiring accessories

Type code	Ident no.	Description	Dimension drawing
WKC4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	

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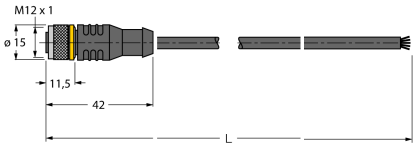
Wiring accessories

Type code	Ident no.	Description	Dimension drawing
RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	

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