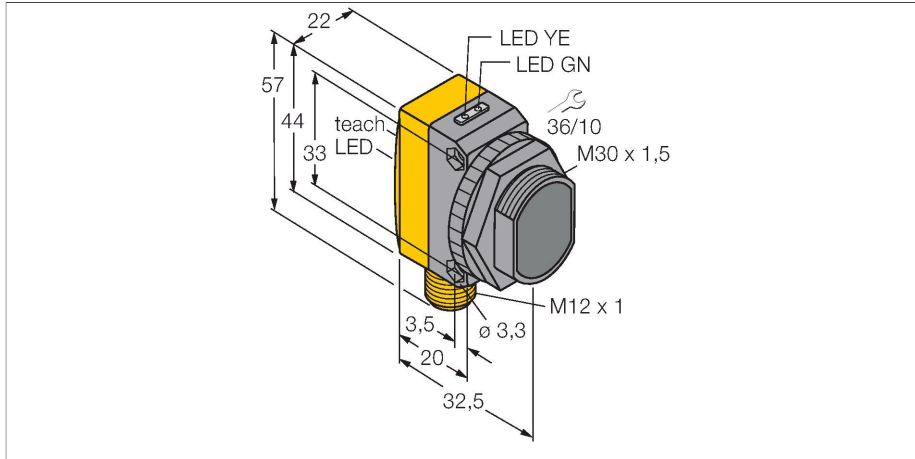


QS30EDVQ

Photoelectric Sensor – Diffuse Mode Sensor



Technical data

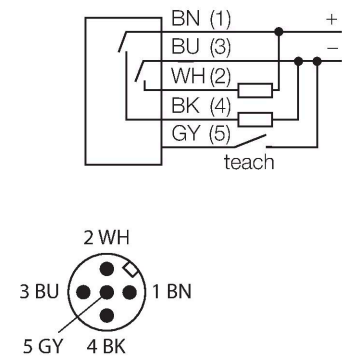
Type	QS30EDVQ
ID no.	3076092
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	Red
Wavelength	660 nm
Range	2...1400 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 150 mA
No-load current	≤ 25 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 270 Hz
Readiness delay	≤ 250 ms
Response time typical	< 0.3 ms
Setting option	Push Button Remote Teach
Mechanical data	
Design	Rectangular with thread, QS30
Dimensions	Ø 30 x 35 x 22 x 57 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Connectors, M12 × 1, PVC



Features

- Male M12 × 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



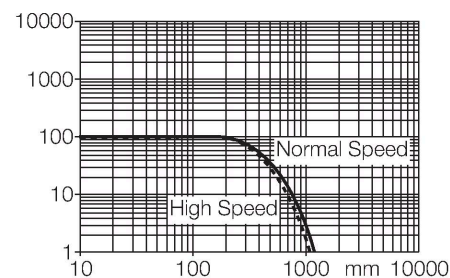
Functional principle

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.

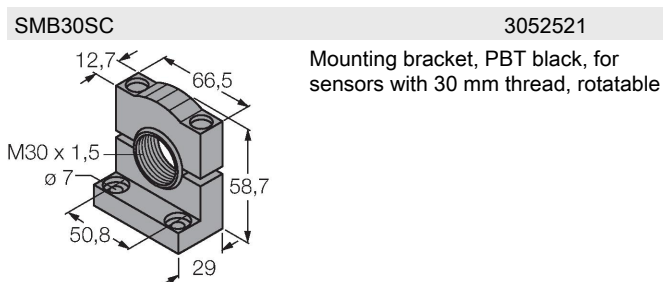
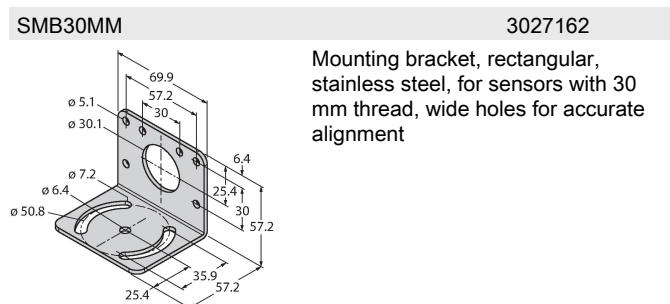
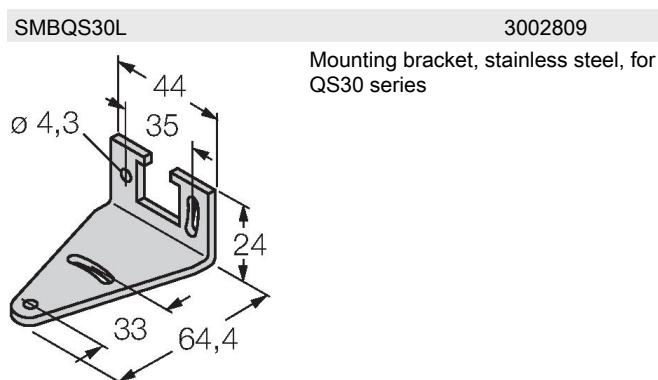
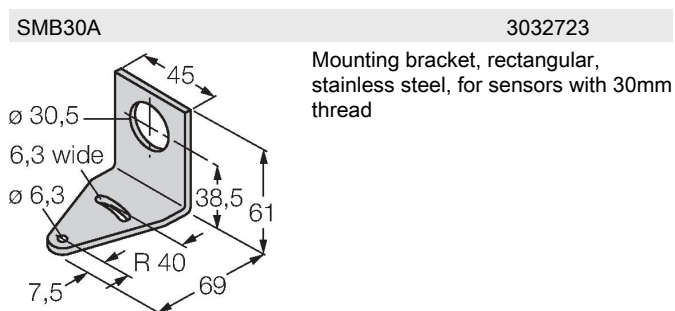
Excess gain curve
Excess gain in relation to the distance

Technical data

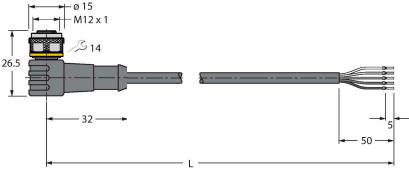
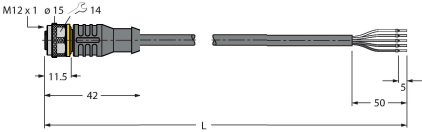
Number of cores	5
Ambient temperature	-10...+55 °C
Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	Bargraph, red, flashing
Tests/approvals	
MTTF	402 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE



Accessories



Accessories

Dimension drawing	Type	ID no.	
	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
	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