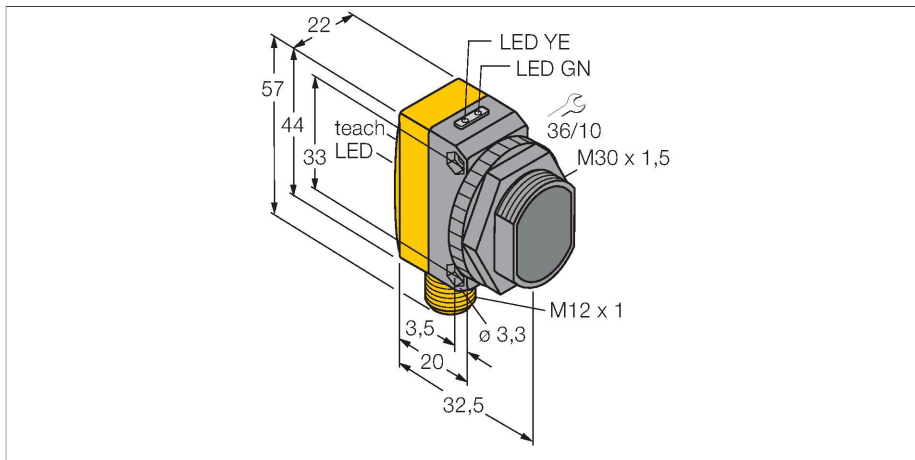


# QS30EDVQ

## Photoelectric Sensor – Diffuse Mode Sensor



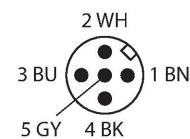
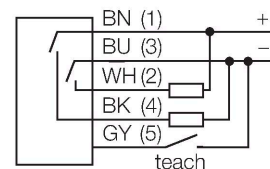
### Technical data

Type	QS30EDVQ
ID	3076092
<b>Optical data</b>	
Function	Proximity switch
Operating mode	Diffuse
Light type	Red
Wavelength	660 nm
Range	2...1400 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
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
<b>Mechanical data</b>	
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	Connector, 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



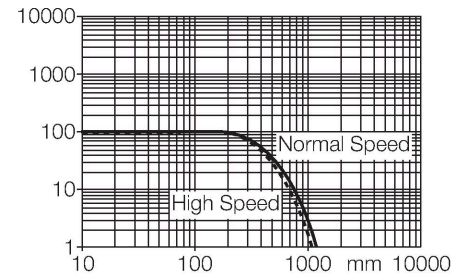
### Functional principle

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
<b>Tests/approvals</b>	
MTTF	402 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE



## Accessories

<b>SMB30A</b> 	<b>3032723</b> Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	<b>SMBQS30L</b> 	<b>3002809</b> Mounting bracket, stainless steel, for QS30 series
<b>SMB30MM</b> 	<b>3027162</b> Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment	<b>SMB30SC</b> 	<b>3052521</b> Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

## Accessories

Dimension drawing	Type	ID	
	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 <a href="http://www.turck.com">www.turck.com</a>

## Dimension drawing

Type  
RKC4.5T-2/TELID  
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](http://www.turck.com)

