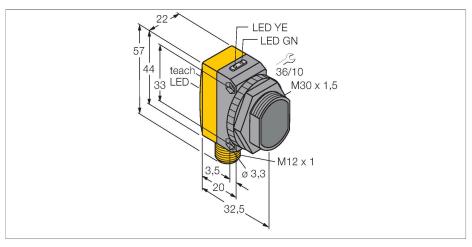


QS30LDQ-71066 Photoelectric Sensor – Diffuse Mode Sensor





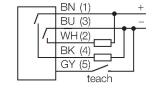
Technical data

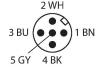
ID 3071066 Optical data Function Proximity switch Operating mode Diffuse Light type Red Wavelength 650 nm Laser class ▲ 1 Beam diameter 2 mm Range 0400 mm Electrical data Operating voltage 1030 VDC Residual ripple <10 % U₁₂ 150 mA No-load current ≤150 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤1000 ms Resdiness delay ≤1 s Readiness delay ≤1000 ms Response time typical <0.5 ms Setting option Push Button Mechanical data Design Rectangular with thread, QS30 Dimensions Ø30 x 35 x 22 x 57 mm Housing material Plastic, Thermoplastic material, Yellow	Туре	QS30LDQ-71066
Function Proximity switch Operating mode Diffuse Light type Red Wavelength 650 nm Laser class ▲ 1 Beam diameter 2 mm Range 0400 mm Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₂ DC rated operational current ≤ 150 mA No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms Setting option Push Button Mechanical data Design Rectangular with thread, QS30 Dimensions Ø 30 x 35 x 22 x 57 mm	ID	3071066
Operating mode Diffuse Light type Red Wavelength 650 nm Laser class ▲ 1 Beam diameter 2 mm Range 0400 mm Electrical data Operating voltage Operating voltage 1030 VDC Residual ripple < 10 % U₂₂	Optical data	
Light type Red Wavelength 650 nm Laser class	Function	Proximity switch
Wavelength 650 nm Laser class	Operating mode	Diffuse
Laser class ▲ 1 Beam diameter 2 mm Range 0400 mm Electrical data 0 perating voltage Operating voltage 1030 VDC Residual ripple < 10 % Uss	Light type	Red
Beam diameter 2 mm Range 0400 mm Electrical data 1030 VDC Residual ripple < 10 % U _{ss} DC rated operational current ≤ 150 mA No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Wavelength	650 nm
Range 0400 mm Electrical data 0 perating voltage 1030 VDC Residual ripple < 10 % U _{ss} DC rated operational current ≤ 150 mA No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Laser class	<u></u> 1
Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U _{ss} DC rated operational current ≤ 150 mA No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms Setting option Push Button Mechanical data Design Rectangular with thread, QS30 Dimensions Ø 30 x 35 x 22 x 57 mm	Beam diameter	2 mm
Operating voltage 1030 VDC Residual ripple < 10 % U _{ss} DC rated operational current ≤ 150 mA No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Range	0400 mm
Residual ripple < 10 % U _{ss} DC rated operational current ≤ 150 mA No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Electrical data	
DC rated operational current ≤ 150 mA No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Operating voltage	1030 VDC
No-load current ≤ 35 mA Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Residual ripple	< 10 % U _{ss}
Short-circuit protection yes Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	DC rated operational current	≤ 150 mA
Reverse polarity protection yes Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	No-load current	≤ 35 mA
Output function NO contact, PNP/NPN Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Short-circuit protection	yes
Switching frequency ≤ 1000 Hz Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Reverse polarity protection	yes
Readiness delay ≤ 1 s Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Output function	NO contact, PNP/NPN
Readiness delay ≤ 1000 ms Response time typical < 0.5 ms	Switching frequency	≤ 1000 Hz
Response time typical < 0.5 ms Setting option Push Button Mechanical data Design Rectangular with thread, QS30 Dimensions Ø 30 x 35 x 22 x 57 mm	Readiness delay	≤ 1 s
Setting option Push Button Mechanical data Design Rectangular with thread, QS30 Dimensions Ø 30 x 35 x 22 x 57 mm	Readiness delay	≤ 1000 ms
Mechanical data Design Rectangular with thread, QS30 Dimensions Ø 30 x 35 x 22 x 57 mm	Response time typical	< 0.5 ms
DesignRectangular with thread, QS30DimensionsØ 30 x 35 x 22 x 57 mm	Setting option	Push Button
Dimensions Ø 30 x 35 x 22 x 57 mm	Mechanical data	
	Design	Rectangular with thread, QS30
Housing material Plastic, Thermoplastic material, Yellow	Dimensions	Ø 30 x 35 x 22 x 57 mm
	Housing material	Plastic, Thermoplastic material, Yellow

Features

- Male M12 × 1, 5-pin
- ■Protection class IP67
- ■LED, all-round visible
- ■Teach button
- No remote teach-in
- ■8-segment bargraph
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring diagram





Functional principle

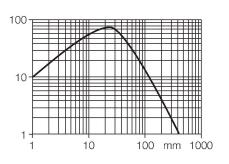
The emitter and receiver are incorporated in the same housing. The light reflection of the target is detected and causes the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

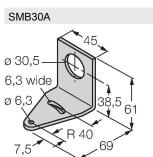
Excess gain in relation to the distance

Technical data

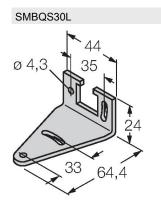
Lens	plastic, Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5
Ambient temperature	-10+50 °C
Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, red, flashing
Tests/approvals	
MTTF	28 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE



Accessories

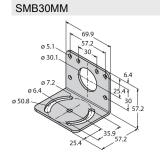


3032723 Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread



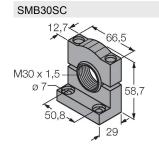
Mounting bracket, stainless steel, for QS30 series

3002809



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

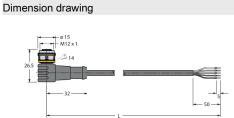
3027162



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

3052521

Accessories



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 www.turck.com



Dimension drawing Type ID 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