QS18EP6DVQ8
Photoelectric Sensor – Diffuse Mode Sensor
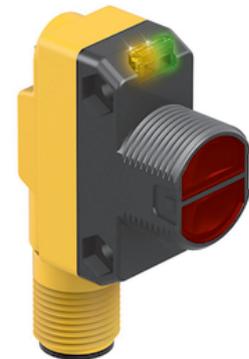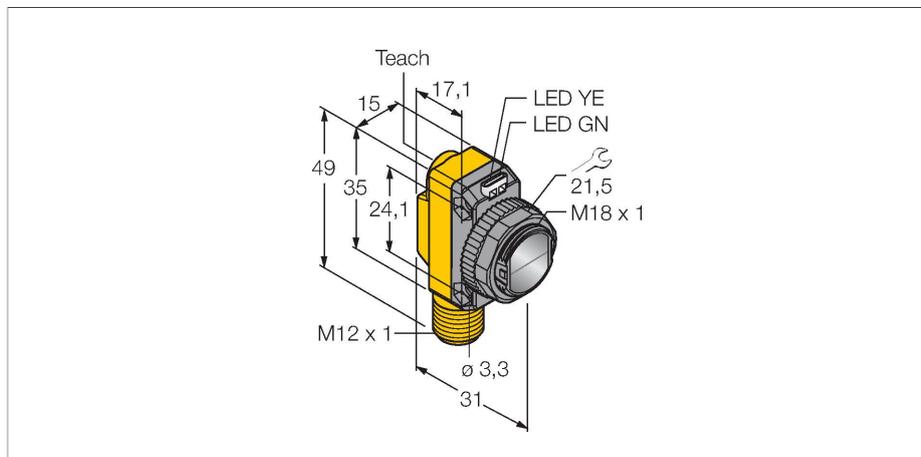


Technical data

Type	QS18EP6DVQ8
ID no.	3075228
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	Red
Wavelength	630 nm
Range	0…600 mm
Electrical data	
Operating voltage	10…30 VDC
Residual ripple	< 10 % U_{ss}
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC, PNP
Current output	100 mA
Readiness delay	≤ 100 ms
Response time typical	< 0.6 ms
Setting option	Push Button Remote Teach
Mechanical data	
Design	Rectangular with thread, QS18
Dimensions	Ø 18 x 31 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, PMMA
Electrical connection	Connectors, M12 × 1, PVC
Number of cores	4

Features

■ Male M12 × 1; 4-pin
■ Protection class IP67
■ LED all-round visible
■ Sensitivity adjusted via teach button
■ Operating voltage: 10…30 VDC
■ PNP switching output, changeover

Wiring diagram
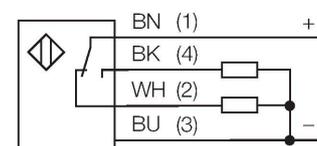
Functional principle

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. This type of sensor is especially suited for detection of transparent objects (diffuse mode sensor with or without background suppression or convergent mode sensors).

Excess gain curve
Excess gain in relation to the distance
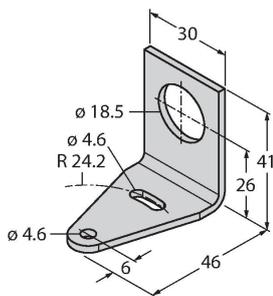
Technical data

Ambient temperature	-20…+70 °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, yellow, flashing
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, cURus
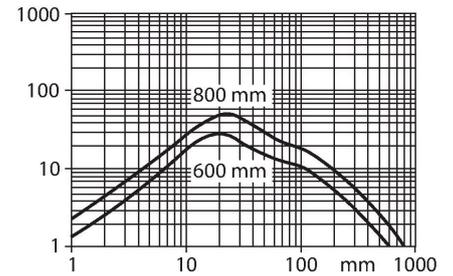
Accessories

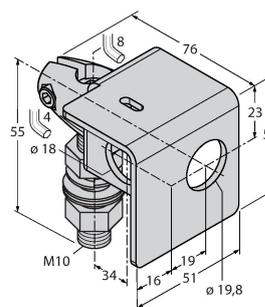| SMB18A	3033200

Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

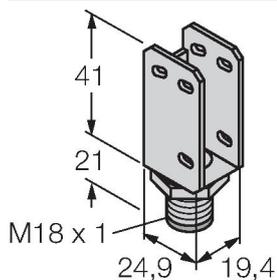| SMB18AFAM10	3012558

Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm
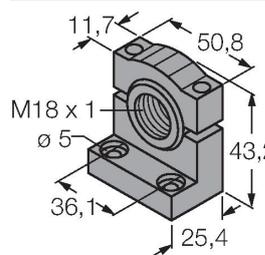
SMBQS18A	3069721

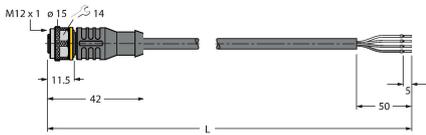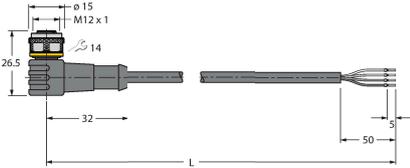Mounting bracket, stainless steel, for 18 mm thread

SMB18SF	3052519

Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

Accessories

Dimension drawing	Type	ID no.	
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com