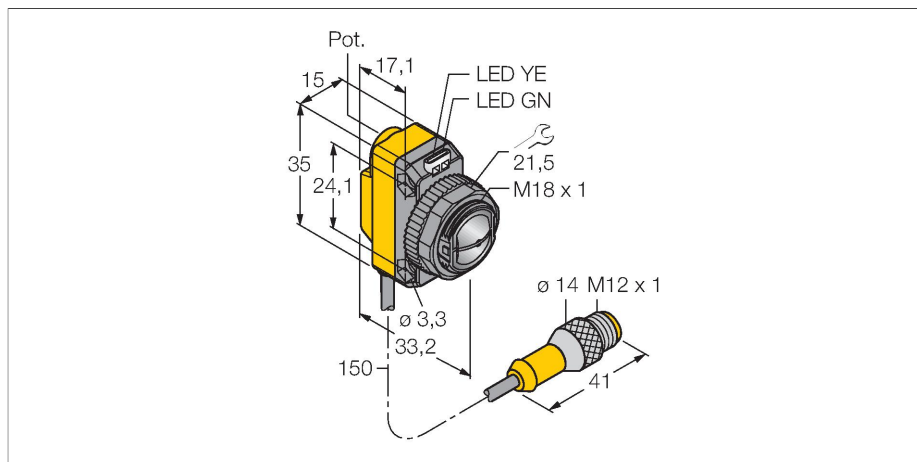


QS18VP6C15YQ5

Photoelectric Sensor – Convergent Mode Sensor



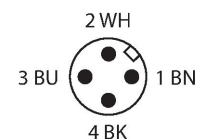
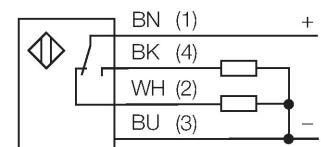
Technical data

Type	QS18VP6C15YQ5
ID	3069975
Optical data	
Function	Proximity switch
Operating mode	Convergent
Light type	Red
Wavelength	660 nm
Focal distance	16 mm
Range	15 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
Switching frequency	≤ 800 Hz
Readiness delay	≤ 100 ms
Response time typical	< 0.6 ms
Setting option	Potentiometer
Mechanical data	
Design	Rectangular with thread, QS18
Dimensions	Ø 18 x 33.2 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, Acrylic

Features

- Cable with male end, M12 × 1, 4-pin, PVC, 150 mm
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

Wiring diagram



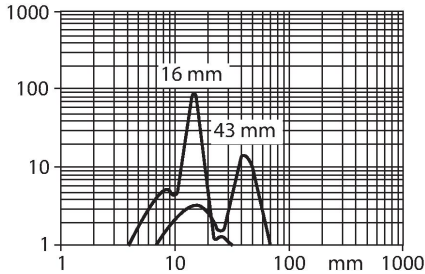
Functional principle

Convergent mode sensors are equipped with a lens in front of the emitter diode that produces a small and intense focal point at a defined distance from the sensor. Similar to diffuse mode sensors, the light reflected by the target is evaluated. Convergent mode sensors are ideal for detection of small targets or colour marks and edge guiding or positioning control of transparent materials. The targets must always be within the focal depth of the sensors. The focal depth is defined as the area in front of or behind the focal point within which the object can be detected. Based on the intense light concentration in the focal point, convergent mode sensors are capable of detecting targets with a low reflectivity.

Technical data

Electrical connection	Cable with connector, M12 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-20...+70 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
Tests/approvals	
Approvals	CE, cURus

Excess gain curve
Excess gain in relation to the distance



Accessories

SMB18A3033200

Technical drawing of the SMB18A mounting bracket. It is a rectangular bracket made of stainless steel, designed for sensors with an 18 mm thread. Dimensions include a width of 30 mm, a height of 41 mm, a base width of 46 mm, and a base height of 26 mm. It features a central hole with a diameter of 18.5 mm and two side holes with a diameter of 4.6 mm. The corner radius is R 24.2 mm.

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

SMB18AFAM103012558

Technical drawing of the SMB18AFAM10 mounting bracket. It is a rectangular bracket made of material VA 1.4401, designed for M10 x 1.5 thread sensors with an 18 mm thread length. Dimensions include a width of 76 mm, a height of 51 mm, and a base width of 34 mm. It features a central hole with a diameter of 18 mm and a side hole with a diameter of 19.8 mm.

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

SMBQS18A3069721

Technical drawing of the SMBQS18A mounting bracket. It is a rectangular bracket made of stainless steel, designed for sensors with an 18 mm thread. Dimensions include a width of 41 mm, a height of 21 mm, and a base width of 24.9 mm. It features a central hole with a diameter of 18 mm and a side hole with a diameter of 19.4 mm.

Mounting bracket, stainless steel, for 18 mm thread

SMB18SF3052519

Technical drawing of the SMB18SF mounting bracket. It is a rectangular bracket made of PBT black, designed for sensors with an 18 mm thread, rotatable. Dimensions include a width of 50.8 mm, a height of 43.2 mm, and a base width of 36.1 mm. It features a central hole with a diameter of 18 mm and a side hole with a diameter of 25.4 mm.

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

Accessories

Dimension drawing	Type	ID	
Technical drawing of the RKC4.4T-2/TEL connection cable. It shows a female M12 connector with a 4-pin configuration. Dimensions include a connector width of 11.5 mm, a cable length of 42 mm, and a total length of 50 mm.	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

Dimension drawing	Type	ID	
	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