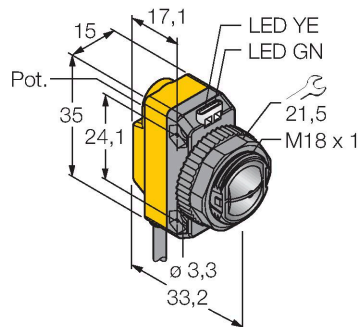


# QS18VP6CV15

## Photoelectric Sensor – Convergent Mode Sensor



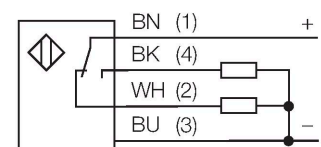
### Technical data

Type	QS18VP6CV15
ID no.	3061642
<b>Optical data</b>	
Function	Proximity switch
Operating mode	Convergent
Light type	Red
Wavelength	630 nm
Focal distance	16 mm
Range	16 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
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
<b>Mechanical data</b>	
Design	Rectangular with thread, QS18
Dimensions	Ø 18 x 33.2 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC

### Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

### Wiring diagram



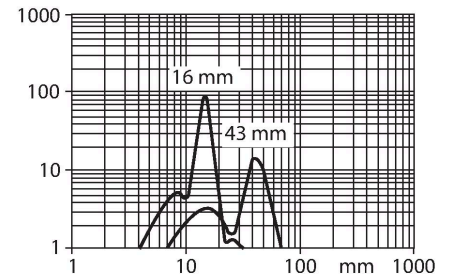
### Functional principle

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.

Excess gain curve  
Excess gain in relation to the distance

## Technical data

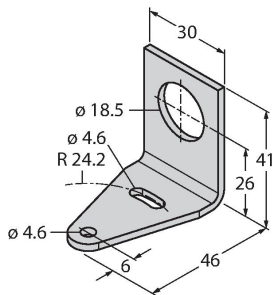
Number of cores	4
Core cross-section	0.35 mm <sup>2</sup>
Ambient temperature	-20...+70 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
<b>Tests/approvals</b>	
Approvals	CE, cURus



## Accessories

### SMB18A

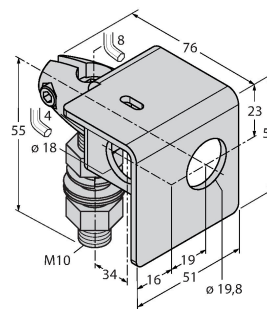
3033200



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

### SMB18AFAM10

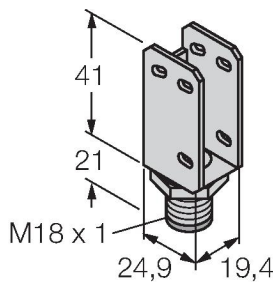
3012558



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

### SMBQS18A

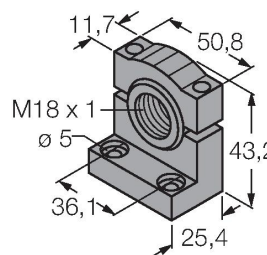
3069721



Mounting bracket, stainless steel, for 18 mm thread

### SMB18SF

3052519



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