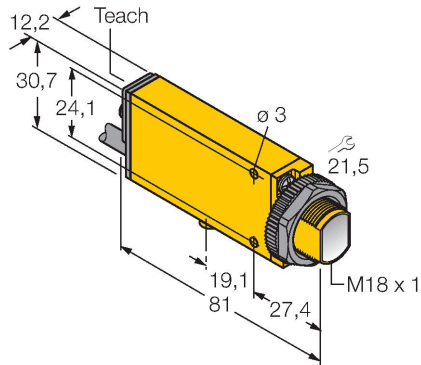


# SMU315CV

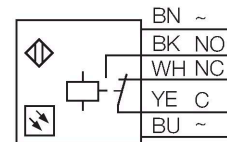
## Photoelectric Sensor – Convergent Mode Sensor



### Features

- Cable, PVC, 2 m
- Protection class IP67
- Sensitivity adjustable via potentiometer
- Alignment indicator
- Operating voltage: 24...240 VDC or 24...240 VAC
- Relay output

### Wiring diagram



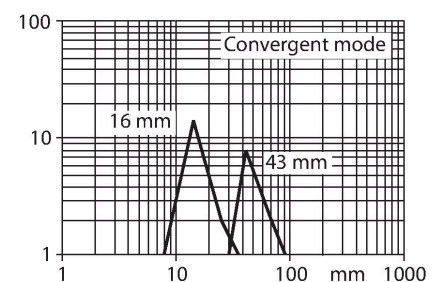
### Technical data

Type	SMU315CV
ID no.	3055248
<b>Optical data</b>	
Function	Proximity switch
Operating mode	Convergent
Light type	Red
Wavelength	650 nm
Focal distance	16 mm
Range	16 mm
<b>Electrical data</b>	
Operating voltage	24...240 VDC
Operating voltage	24...240 VAC
DC rated operational current	≤ 3000 mA
AC rated operational current	≤ 3000 mA
Output function	NO/NC, Relay output
Switching frequency	≤ 25 Hz
Readiness delay	≤ 0 ms
Response time typical	< 20 ms
Max. DC switching capacity	1 W
Setting option	Potentiometer
<b>Mechanical data</b>	
Design	Rectangular with thread, Mini Beam
Dimensions	Ø 18 x 81 x 12.3 x 30.7 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	5

### 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

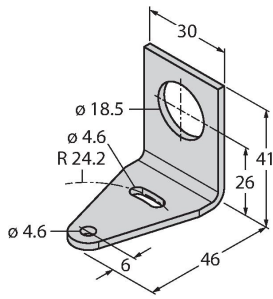


## Technical data

Core cross-section	0.5 mm <sup>2</sup>
Ambient temperature	-20...+55 °C
Protection class	IP67
Special features	Encapsulated
Switching state	LED, Red
Excess gain indication	LED, red, flashing
<b>Tests/approvals</b>	
Approvals	CE, cURus, CSA

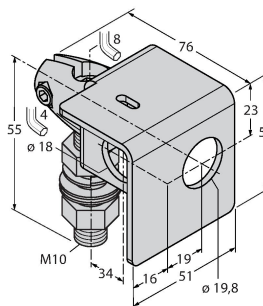
## Accessories

**SMB18A** 3033200



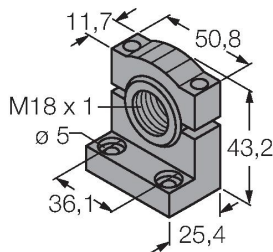
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

**SMB18AFAM10** 3012558



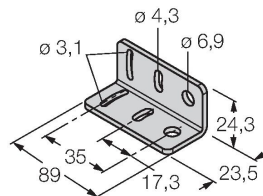
Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

**SMB18SF** 3052519



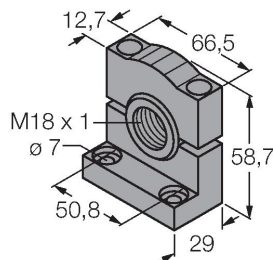
Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

**SMB312B** 3025519



Mounting bracket, stainless steel, for MINI-BEAM NAMUR

**SMB3018SC** 3053952



Mounting bracket, PTB black, for sensors with 18 mm thread