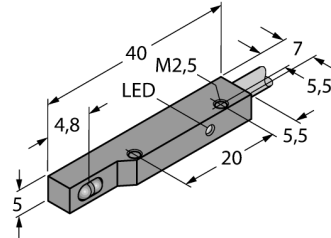
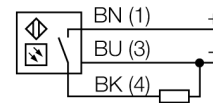


**Photoelectric sensor
convergent mode sensor
miniature sensor
VSMQAP6CV90**



- **Stainless steel housing V2A**
- **Protection class IP67**
- **Cable, 2 m, 3-wire**
- **Lens, sapphire crystal glass**
- **Operating voltage: 10...30 VDC**
- **PNP switching output, light operation**

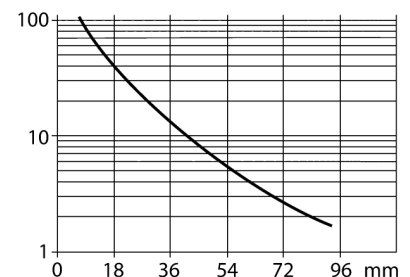
Wiring diagram



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 the detection of small targets, color marks, edge guiding and 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



Type code	VSMQAP6CV90
Ident no.	3013397
Operating mode	convergent mode sensor
Light type	IR
Wavelength	880 nm
Focal distance	90 mm
Ambient temperature	0...+55 °C
Operating voltage	10...30VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
No-load current I ₀	≤ 15 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO, light operation, PNP
Switching frequency	≤ 250 Hz
Readiness delay	≤ 20 ms
Design	rectangular, VSM
Dimensions	7 x 5 x 40 mm
Housing material	metal, V2A (1.4301)
Lens	glass, Sapphire
Connection	cable
Cable length	2 m
Cable cross section	3 x 0.34 mm ²
Protection class	IP67
Switching state	LED yellow

Photoelectric sensor
 convergent mode sensor
 miniature sensor
 VSMQAP6CV90

Wiring accessories

Type code	Ident no.	Description	Dimension drawing
PKG3M-2/TEL	6625058	Connection cable, female M8, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	
PKW3M-2/TEL	6625064	Connection cable, female M8, angled, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	