

IN991197

Inductive sensors

IV991196

Amplifier

VK991198

Connection cable

Sensors installation

- The sensor **IN991197** is an inductive proximity switch for non-flush mounting. Due to its construction, the device only detects metallic objects.
- To achieve the nominal switching distance of 15mm (see technical data), must have the metal part following properties:

Material:	ST37
Dimensions:	32mm x 32mm x 1mm
- For other materials, the correction factors are listed in the technical data.
- The switching distance may deviate from the nominal value by $\pm 20\%$ due to component tolerances.
- Install the device in a way, that the plastic cap is not surrounded by metal. The lateral distance to metallic objects must be at least 32mm.
- To avoid damaging the threaded sleeve during assembly, the tightening torque must not exceed 150 Nm.
- The device may be used in surroundings with temperatures up to 230°C.
- Due to the low self-heating (at a surrounding temperature of 20°C, the device heats up to a maximum of 30°C) and the operating voltage of 3V DC, the sensor may be used in the dust-ex-area Zone 22.

Installation of the amplifier

- The amplifier **IV991196** is to be used for the operation of the sensor IN991197 in connection with the cable socket VK991198.
- The device is suitable for mounting on a DIN rail. Mounting must take place outside the dust-ex-area, e.g. in a protected switch cabinet.
- The pnp switching output can be further processed with a PLC. The switching output has a switch-on delay of 100ms.

Electrical connection

Connection of the sensor to the amplifier via the VK991198 cable socket:

Connection of the operating voltage and the switching output to the amplifier

Clamp 4:	brown (sensor power supply +3V)
Clamp 5:	black (screen)
Clamp 6:	blue (sensor power supply GND)
Clamp 9:	+ U _B
Clamp 8:	switching output pnp, no, 400mA
Clamp 7:	0V (GND)

IMPORTANT:

- Switch off the operating voltage before connecting or disconnecting the amplifier!
- The cable socket may also only be plugged in or unplugged from the sensor when it is de-energized. An appropriate waiting time (>10s) must be observed before pulling off.
- When plugging in the cable socket, make sure that, that it snaps securely into the connector of the sensor.

Technical data	IV991196	IN991197
Operating voltage U_B	7 to 35V DC	3V DC, through amplifier IV991196
Nominal switching distance (s_n)		15mm
Hysteresis		3% to 20% from s_n
Real switching distance (s_r)		$s_n \pm 20\%$
Ampacity	400mA	
Ambient temperature	-25°C to +70°C	-25°C to +230°C
System of protection	Housing IP40, Clamp IP20 (EN 60529)	IP67 (EN 60529) with attached cable socket
Housing material	Plastic	Sleeve : VA Cap: Vectra
Design	22,5x75x110	Threaded device M32x1,5 Total length 93mm
Mounting	on DIN rail	
Connection	Clamps	Lemos connector
Matching cable socket		VK991198 (30m line length)
Adjustment factors		VA approx. 0,7 Ms, Al approx. 0,4 Cu approx. 0,3



Dimensional drawing: IV991196

IN991197

