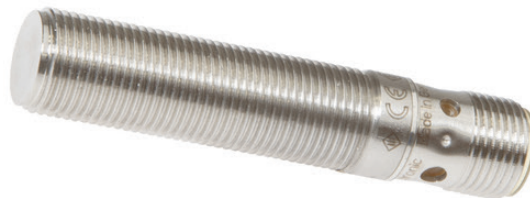


## IC12E087

### INDUCTIVE SENSORS • FULL-METAL HOUSING

Inductive proximity switches are contact-free sensors. They detect all conductive metals, regardless of whether they move or not. The achievable sensing range of the devices depends on the object material and its dimensions. The vibration-resistant sensors can be approached laterally or frontally. Inductive proximity switches are used for presence detection (e.g. goods carriers), positioning (e.g. dampers), counting (e.g. nuts /bolts), speed detection (e.g. for cog wheels), on conveyor systems (e.g. hose feedings) or distance measurements (e.g. press-in checking) of metallic objects.



#### MECHANICAL DATA

Active area material of sensor	Stainless steel 1.4404
Ambient temperature (MAX)	60 °C
Ambient temperature (MIN)	-40 °C
Ambient temperatures < -25°C	Yes
Degree of protection (IP)	IP67
Housing design	Cylinder, screw-thread
Housing material	Stainless steel 1.4404
Mechanical mounting condition for sensor	Flush
Pressure resistance	100 bar
Pressure-proof	Yes
Sensor diameter	12 mm
Sensor length	60 mm
Thread length	40 mm
Thread pitch	1 mm
Thread size, metric	12

#### ELECTRICAL DATA

Cascadable	No
Correction factor (aluminum)	0.3
Correction factor (brass)	0.4
Correction factor (copper)	0.1
Correction factor (St37)	1
Correction factor (stainl. steel)	0.7
Hysteresis	20 %
Max. output current	100 mA
Min. output current	100 mA
No-load current	20 mA
Norm measuring plate	12x12x1
Number of pins	3
Operating voltage (MAX)	36 V
Operating voltage (MIN)	10 V

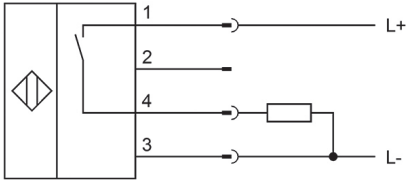
**ELECTRICAL DATA**

Response time	5 ms
Reverse polarity protection	Yes
Short-circuit-proof	Yes
Suitable for safety functions	No
Supply voltage (MAX)	36 V
Supply voltage (MIN)	10 V
Switching behavior of the output	Static
Switching distance	3 mm
Switching frequency	100 Hz
Type of electrical connection	Connector M12
Type of switching function	Normally open contact
Type of switching output	PNP
Voltage drop	2.5 V
Voltage type	DC
With LED display	Yes
With monitoring function of downstream devices	No

**OTHER DATA**

Explosion protection category for dust	ATEX dust-ex-protection, Cat. 3D
Explosion protection category for gas	ATEX gas-ex-protection, Cat. 3G
Feeding technology	Yes
Harsh environmental conditions	Yes
Hygienic and wet area	Yes
Metallic sensor surface	Yes
Oil and cooling lubricants	Yes

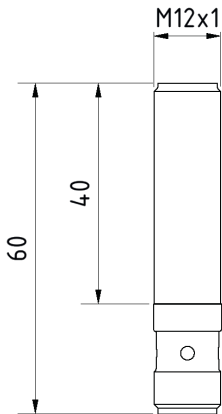
## CONNECTION



**Colors:** 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black)

**Functions:** 1 = L+, 2 = n. c., 3 = L-, 4 = PNP NO

## DIMENSIONAL DRAWING



## INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

## DISPOSAL



## SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.