

## IO080176

### 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 1.4305
Ambient temperature (MAX)	80 °C
Ambient temperature (MIN)	-25 °C
Degree of protection (IP)	IP67
Housing design	Cylinder, screw-thread
Housing material	Stainless steel 1.4305
Material independent sensors (factor 1)	Yes
Material thickness	0.25 mm
Mechanical mounting condition for sensor	Non-flush
Pressure resistance	100 bar
Pressure-proof	No
Sensor length	60 mm
Thread length	41 mm
Thread pitch	1 mm
Thread size, metric	8

#### ELECTRICAL DATA

Cascadable	No
Correction factor (aluminum)	1
Correction factor (brass)	1.35
Correction factor (copper)	0.8
Correction factor (St37)	1
Correction factor (stainless steel V2A: 1mm)	0.3
Correction factor (stainless steel V2A: 2mm)	0.8
Hysteresis	20 %
IO-Link compatible	Yes
Max. line length	300 m
Max. output current	200 mA
No-load current	10 mA
Norm measuring plate	18x18x1
Number of pins	3

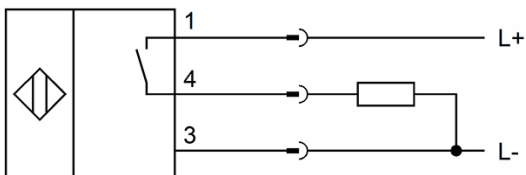
## ELECTRICAL DATA

Readiness delay	10 ms
Relative repeat accuracy	5 %
Residual ripple	20 %
Reverse polarity protection	Yes
Short-circuit-proof	Yes
Suitable for safety functions	No
Supply voltage (MAX)	30 V
Supply voltage (MIN)	10 V
Switching distance	6 mm
Switching frequency	700 Hz
Type of electrical connection	Connector M8
Type of switching function	Normally open contact
Type of switching output	PNP
Voltage drop	2 V
Voltage type	DC
With LED display	Yes
With LED display (functional reserve)	Yes
With monitoring function of downstream devices	No

## OTHER DATA

Harsh environmental conditions	Yes
Hygienic and wet area	Yes
Metallic sensor surface	Yes
Oil and cooling lubricants	Yes

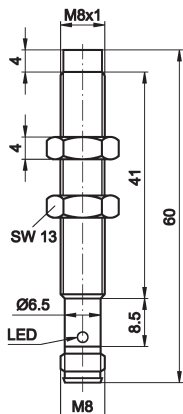
## CONNECTION



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

**Functions:** 1 = L+, 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.