

IB05017H

INDUCTIVE SENSORS • ENLARGED SWITCHING DISTANCE

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.



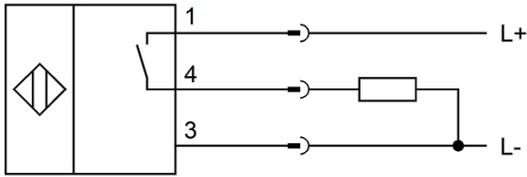
TECHNICAL DATA

2x increased switching distance	No
3x increased switching distance	No
4x increased switching distance	Yes
Active area material of sensor	PPE
Ambient temperature	-25 °C ... 70 °C
Ambient temperatures < -25°C	No
Areas inquiry	No
Atmospheric-change resistant (temperature cycle)	No
Cascadable	No
Connection to amplifier	No
Correction factor (aluminum)	0.3
Correction factor (brass)	0.42
Correction factor (copper)	0.3
Correction factor (stainless steel)	0.67
Correction factor (steel)	1
Degree of protection (IP)	IP67
Devices for hose mounting	No
Distance measuring sensors	No
End position sensing, hydraulic cylinder	No
Feeding technology	No
Harsh environmental conditions	No
High-pressure-proof sensors	No
Housing coating	Chromium-plated
Housing design	Cylinder, screw-thread
Housing material	Nickel silver
Housing material	Metal
Hygienic and wet area	No
Hysteresis	8 %
Increased ambient temperatures > 80°C	No
Increased switching distance	Yes

TECHNICAL DATA

Material independent sensors (factor 1)	No
Max. output current	200 mA
Mechanical mounting condition for sensor	Concise
Metallic sensor surface	No
No-load current	10 mA
Norm measuring plate	7.5x7.5x1
Number of pins	3
Oil and cooling lubricants	No
Pressure-proof	No
Rated control supply voltage U_s at DC	10 V ... 30 V
Readiness delay	30 ms
Relative repeat accuracy	1.2 %
Residual ripple	20 %
Reverse polarity protection	Yes
Ring-shaped sensors	No
Sensor length	38 mm
Short-circuit-proof	Yes
Suitable for safety functions	No
Supply voltage	10 V ... 30 V
Switching distance	2.5 mm
Switching frequency	800 Hz
Teflon housing	No
Thread length	20 mm
Thread pitch	0.5 mm
Thread size, metric	5
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
Welding area	No
Welding-proof sensors	No
With LED display	Yes
With monitoring function of downstream devices	No

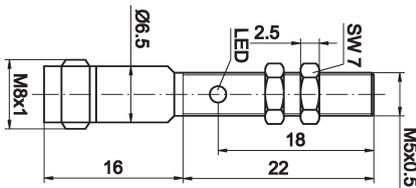
CONNECTION



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.