

IBR30176

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.



MECHANICAL DATA

Active area material of sensor	PCB
Ambient temperature (MAX)	70 °C
Ambient temperature (MIN)	-25 °C
Degree of protection (IP)	IP67
Housing design	Cylinder plain
Housing material	Stainless steel 1.4301
Mechanical mounting condition for sensor	Flush
Pressure-proof	No
Sensor diameter	3 mm
Sensor length	22 mm

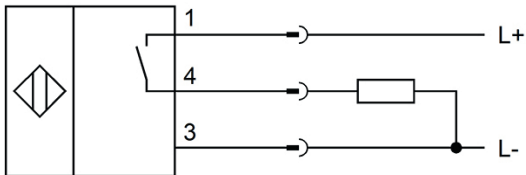
ELECTRICAL DATA

Cascadable	No
Correction factor (aluminum)	0.5
Correction factor (brass)	0.6
Correction factor (copper)	0.45
Correction factor (St37)	1
Correction factor (stainl. steel)	0.8
Hysteresis	10 %
IO-Link compatible	Yes
Max. output current	100 mA
No-load current	10 mA
Norm measuring plate	3x3x1
Number of pins	3
Relative repeat accuracy	2 %
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	1 mm

ELECTRICAL DATA

Switching frequency	3000 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 monitoring function of downstream devices	No

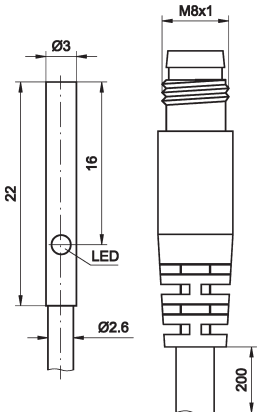
CONNECTION



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.