

IB12E051

INDUCTIVE SENSORS • NORM 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	LCP
Ambient temperature (MAX)	85 °C
Ambient temperature (MIN)	-25 °C
Degree of protection (IP)	IP69K
Housing design	Cylinder, screw-thread
Housing material	Stainless steel 1.4404
Increased ambient temperatures > 80°C	Yes
Max. tightening torque	20 Nm
Mechanical mounting condition for sensor	Flush
Pressure-proof	No
Sensor diameter	12 mm
Sensor length	45 mm
Thread length	30 mm
Thread pitch	1 mm
Thread size, metric	12

ELECTRICAL DATA

Cascadable	No
Decay time	0.25 ms
Max. output current	200 mA
Max. output current at safe output	200 mA
No-load current	10 mA
Norm measuring plate	12x12x1
Number of pins	4
Operating voltage (MAX)	30 V
Operating voltage (MIN)	10 V
Residual ripple	15 %
Response time	0.25 ms
Reverse polarity protection	Yes
Short-circuit-proof	Yes
Suitable for safety functions	No

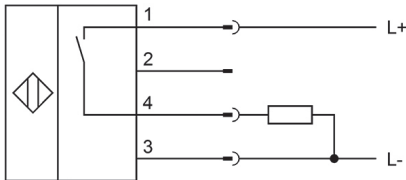
ELECTRICAL DATA

Supply voltage (MAX)	30 V
Supply voltage (MIN)	10 V
Switching distance	4 mm
Switching frequency	2000 Hz
Type of electrical connection	Connector M12
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

OTHER DATA

Hygienic and wet area	Yes
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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.