

## IB180006

### INDUCTIVE SENSORS • DISTANCE MEASUREMENT

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	PBTP
Ambient temperature (MAX)	70 °C
Ambient temperature (MIN)	-25 °C
Cable length	2 m
Degree of protection (IP)	IP67
Housing coating	Chromium-plated
Housing design	Cylinder, screw-thread
Housing material	Brass
Material of cable sheath	PUR (Polyurethane)
Mechanical mounting condition for sensor	Quasi-flat
Number of wires	4
Sensor length	40 mm
Thread pitch	1 mm
Thread size, metric	18

#### ELECTRICAL DATA

Absolute repeat accuracy	0.3 mm
Correction factor (aluminum)	0.2
Correction factor (brass)	0.3
Correction factor (copper)	0.17
Correction factor (St37)	1
Correction factor (stainl. steel)	0.65
Distance measuring sensors	Yes
Measuring range length (MAX)	10 mm
Measuring range length (MIN)	0 mm
No-load current	12 mA
Operating voltage (MAX)	30 V
Operating voltage (MIN)	15 V
Readiness delay	50 ms
Reverse polarity protection	Yes
Short-circuit-proof	Yes

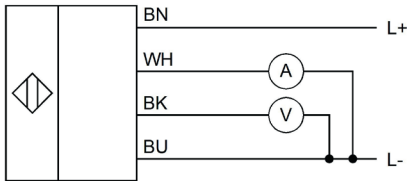
## ELECTRICAL DATA

Supply voltage (MAX)	30 V
Supply voltage (MIN)	15 V
Type of analog output	4 mA ... 20 mA
Type of electrical connection	Cable
Voltage type	DC

## OPTICAL DATA

Resolution	5 $\mu$ m
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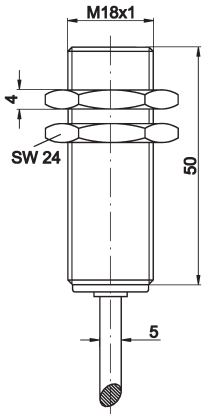
## CONNECTION



**Colors:** BN (brown), WH (white), BU (blue), BK (black)

**Functions:** BN = L+, WH = 4-20mA, BU = L-, BK = 0-10V

## 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.