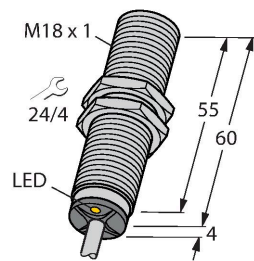


BI5U-MT18-ADZ30X2

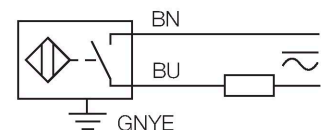
Inductive Sensor



Features

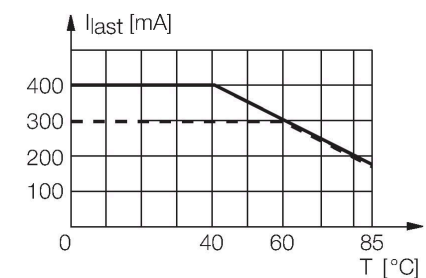
- Threaded barrel, M18 x 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- Cable connection

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.



Technical data

Type	BI5U-MT18-ADZ30X2
ID	4209410
General data	
Rated switching distance	5 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
	$\leq \pm 15 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	20...250 VAC
Operating voltage U_B	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I_o	≤ 300 mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes/Latching
Voltage drop at I_o	≤ 6 V
Wire break/reverse polarity protection	yes/Complete
Output function	2-wire, NO contact, 2-wire
DC field stability	300 mT
AC field stability	300 mT _{ss}

Technical data

Smallest operating current	≥ 3 mA
Switching frequency	0.02 kHz
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	64 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PBT, PTFE-coated
End cap	Plastic, EPTR
Max. tightening torque of housing nut	15 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.5 mm ²
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Yellow
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description



Distance D 36 mm

Distance W 15 mm

Distance T 54 mm

Distance S 27 mm

Distance G 30 mm

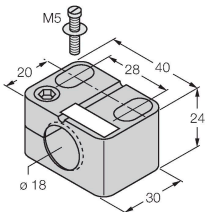
Diameter active area B Ø 18 mm

Accessories

BST-18B

6947214

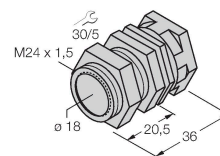
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QMT-18

6945104

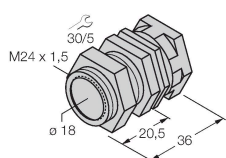
Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



QM-18

6945102

Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BSS-18

6901320

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

