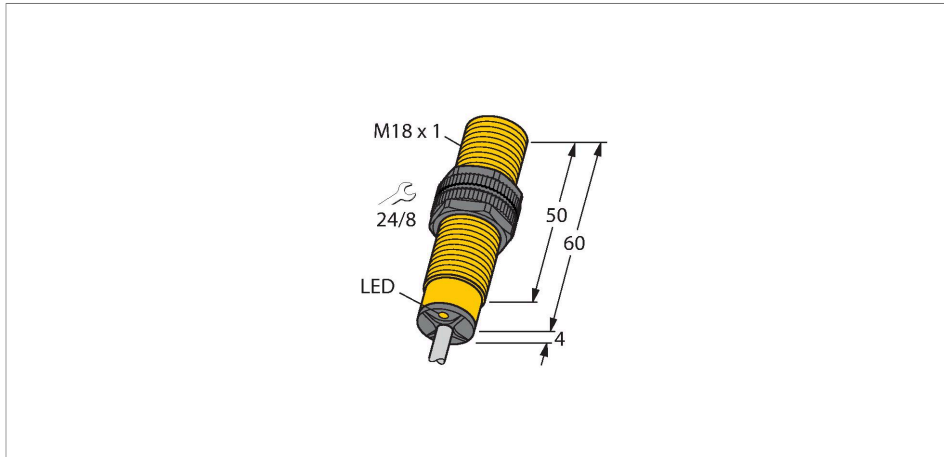


BI4U-S18-AP6X/S1132

Inductive Sensor – With Low Hysteresis



Features

- Threaded barrel, M18 x 1
- Plastic, PA12-GF30
- Factor 1 for all metals
- Protection type IP68
- Resistant to magnetic fields
- Recessed mountable
- For temperatures up to +100°C
- Very short hysteresis
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Technical data

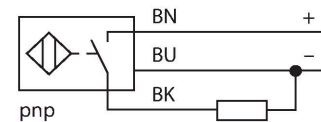
Type	BI4U-S18-AP6X/S1132
ID	1634932
Special version	S1132 corresponds to: Maximum ambient temperature = 100 °C Hysteresis 0.03 ... 0.1 %

General data	
Rated switching distance	4 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$ $\leq \pm 20 \%, \leq -25 \text{ °C}, \geq +70 \text{ °C}$

Hysteresis	3...10 %
Hysteresis	0.12 .. 0.4 mm

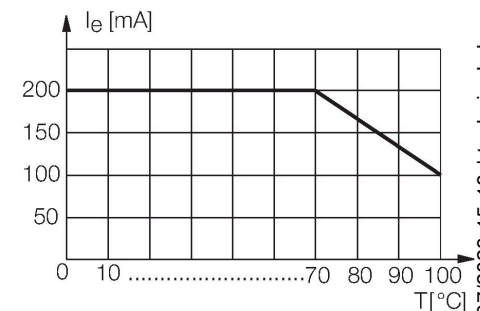
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \%$ U_{ss}
DC rated operational current	≤ 200 mA
Rated operational current	See derating curve
No-load current	25 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. *uprox+* sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.



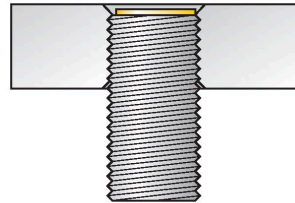
BI4U-S18-AP6X/S1132 | 11/07/2023 15-18 | technical changes reserved

Technical data

Output function	3-wire, NO contact, PNP
DC field stability	300 mT
AC field stability	300 mT _{ss}
Switching frequency	2.5 kHz
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	64 mm
Housing material	Plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque of housing nut	2 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY-T105, PVC, 2 m
Core cross-section	3 x 0.5 mm ²
Environmental conditions	
Ambient temperature	-25...+100 °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
Switching state	LED, Red

Mounting instructions

Mounting instructions/Description



Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 18 mm

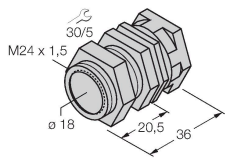
All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

Accessories

QM-18

6945102

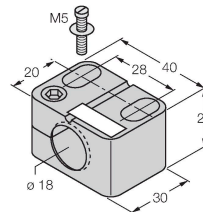
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BST-18B

6947214

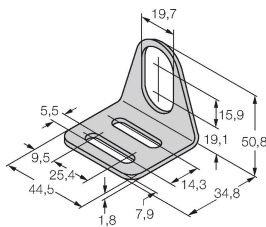
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



MW-18

6945004

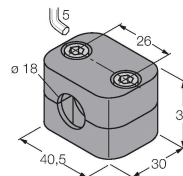
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-18

6901320

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



PN-M18

6905310

Protective nut for M18 x 1 threaded
barrels; material: Stainless steel A2
1.4305 (AISI 303)

