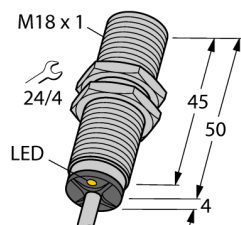


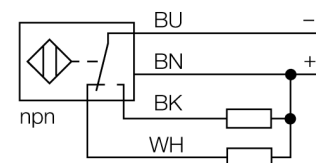
Inductive Sensor

BI10U-M18-VN6X 7M



- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- DC 4-wire, 10...30 VDC
- Complementary, NPN output
- Cable connection

Wiring Diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox3 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.

Type	BI10U-M18-VN6X 7M
ID	1644849
General data	
Rated switching distance S_n	10 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage U_o	10...30 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 200 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, NPN
DC field stability	300 mT
AC field stability	300 mT _{ss}
Switching frequency	1.5 kHz
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	54 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, LCP
End cap	Plastic, EPTR
Max. tightening torque of housing nut	10 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY, PVC, 7 m
Core cross-section	4 x 0.34 mm ²

Environmental conditions	
Ambient temperature	-25...+70 °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, Yellow	

Accessories

Type code	Ident no.		Dimension drawing
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	