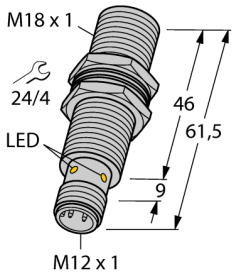
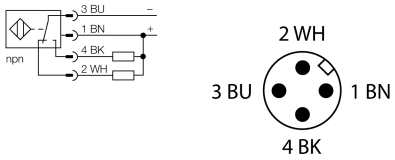
Inductive Sensor
With Extended Switching Distance
BI8U-M18M-VN44X-H1141



- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- Recessed mountable
- DC 4-wire, 10…55 VDC
- Changeover contact, NPN output
- M12 x 1 male connector

Wiring Diagram



Type	BI8U-M18M-VN44X-H1141
ID	1634881

Remark to product	Product discontinued. Please use the alternative product 100003666 with an operating voltage of 10…30 VDC.

General data	
Rated switching distance Sn	8 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3…15 %

Electrical data	
Operating voltage	10…55 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 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
Output function	4-wire, Complementary contact, NPN
DC field stability	300 mT
AC field stability	300 mT_{ss}
Insulation class	⧈
Switching frequency	1.5 kHz

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.

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Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	61.5 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, LCP
Connector housing	plastic, PP
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 × 1

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

Switching state	LED, Yellow

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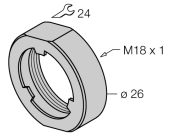
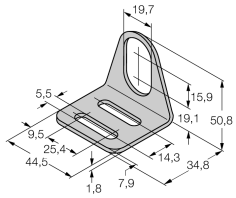
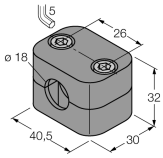
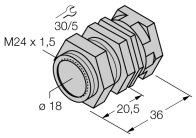
Accessories

Type code	Ident no.		Dimension drawing
PN-M18	6905310	Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)	
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	
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.	

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