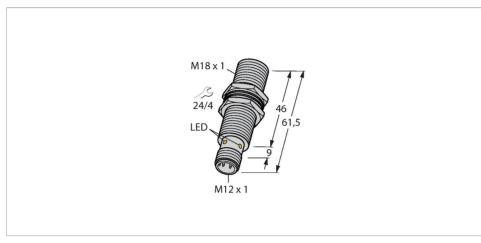


# BI8U-M18M-VP6X-H1141 Inductive Sensor



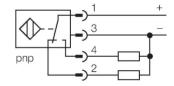
#### Technical data

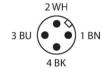
Type	BI8U-M18M-VP6X-H1141
Ident. no.	1634945
Rated switching distance	8 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	315 %
Ambient temperature	-30+85 °C
Operating voltage	1030 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I <sub>e</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
Insulation class	
Switching frequency	1.5 kHz
Design	Threaded barrel, M18 $\times$ 1
Dimensions	61.5 mm

#### **Features**

- 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...30 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

# Wiring diagram





# Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system,  $uprox^{\circ}$ + sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.



### Technical data

Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, LCP
Connector housing	plastic, PP
Max. tightening torque housing nut	25 Nm
Electrical connection	Connector, M12 × 1
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

# Mounting instructions

## Mounting instructions/Description



Distance D	36 mm
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  $uprox^{\circ}+$  threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

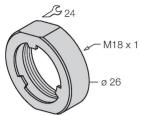




#### Accessories

PN-M18 6905310

Protective nut for M18 x 1 threaded



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

6901320



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

6945004

BSS-18

Ø 18

Ø 18

32

40,5

30

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