

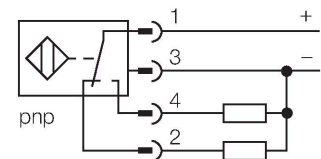
# BI5-EM18-VP4X-H1141

## Inductive sensor

### Features

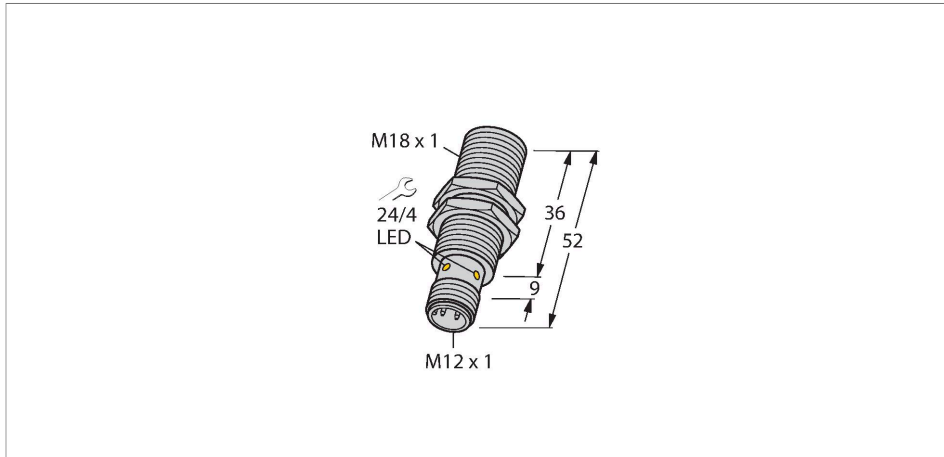
- Threaded barrel, M18 x 1
- Stainless steel, 1.4301
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.



### Technical data

<b>Type</b>	BI5-EM18-VP4X-H1141
Ident. no.	1561801
Rated switching distance	5 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...65 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
Switching frequency	0.5 kHz
<b>Design</b>	Threaded barrel, M18 x 1
Dimensions	52 mm
Housing material	Stainless steel, V2A (1.4301)

Technical data

Active area material	Plastic, PA12-GF30
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	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

**Mounting instructions/Description**



Distance D	2 x B
Distance T	3 x B
Diameter active area B	Ø 18 mm

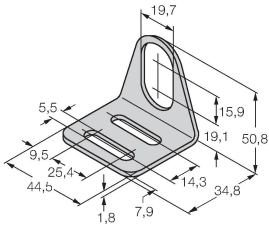
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Accessories

**MW18**

**6945004**

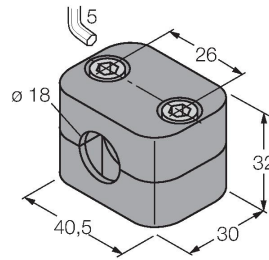
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



**BSS-18**

**6901320**

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





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