

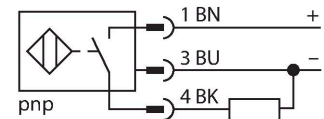
# BI5U-M18-AP6X-H1141

## Inductive sensor

### Features

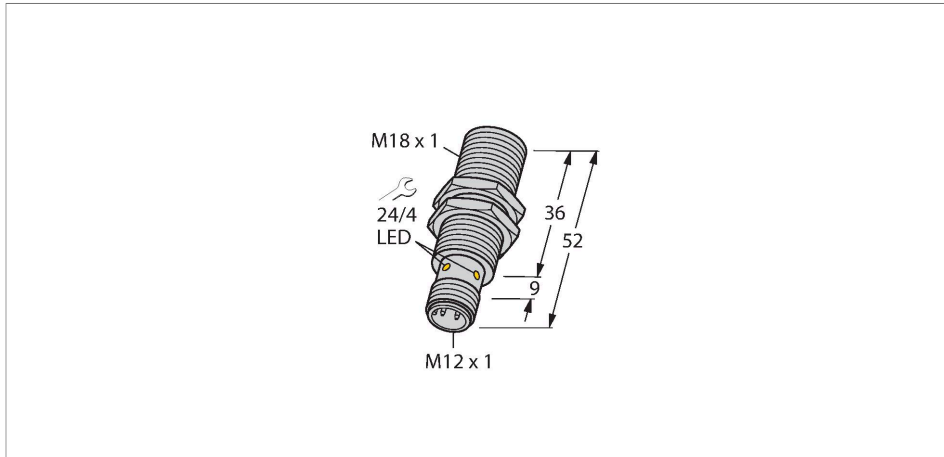
- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. *uprox*® Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.



### Technical data

Type	BI5U-M18-AP6X-H1141
Ident. no.	1635140
Rated switching distance	5 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
	$\leq \pm 15\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\%$ $U_s$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 20$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_e$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Insulation class	□
Switching frequency	1.5 kHz
Design	Threaded barrel, M18 x 1
Dimensions	52 mm

## Technical data

Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT
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	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

Accessories

<p><b>BST-18B</b></p>	<p><b>6947214</b></p> <p>Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6</p>	<p><b>QM-18</b></p>	<p><b>6945102</b></p> <p>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.</p>
<p><b>MW18</b></p>	<p><b>6945004</b></p> <p>Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)</p>	<p><b>BSS-18</b></p>	<p><b>6901320</b></p> <p>Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene</p>

Wiring accessories

Dimension drawing	Type	Ident. no.
	<p><b>RK 4T-2</b></p>	<p><b>U2151</b></p>
	<p><b>RKC4T-2/TEL</b></p>	<p><b>6625010</b></p> <p>Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a></p>

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