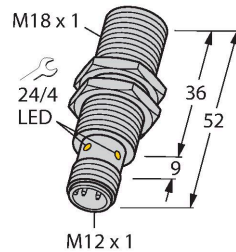


BI8U-EM18-AN6X-H1141

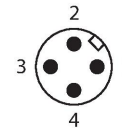
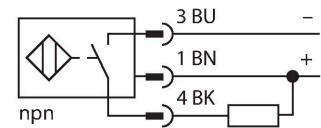
Inductive Sensor – With Extended Switching Distance



Features

- Threaded barrel, M18 x 1
- Stainless steel, 1.4301
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- Recessed mountable
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- M12 x 1 male connector

Wiring diagram



Technical data

Type	BI8U-EM18-AN6X-H1141
ID	1644738
General data	
Rated switching distance	8 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	$\leq 200 \text{ mA}$
No-load current	$\leq 25 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	$\leq 1.8 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, NPN
DC field stability	300 mT
AC field stability	300 mT _{ss}
Switching frequency	1.5 kHz

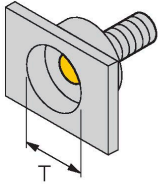
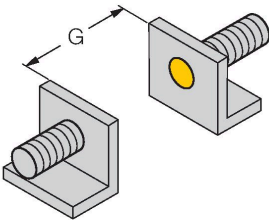
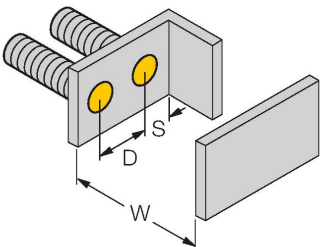
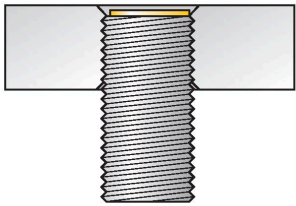
Functional principle

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.

Technical data

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	52 mm
Housing material	Stainless steel, 1.4301 (AISI 304)
Active area material	Plastic, LCP
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 x 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

Mounting instructions

Mounting instructions/Description												
  												
	<table> <tr> <td>Distance D</td><td>36 mm</td></tr> <tr> <td>Distance W</td><td>3 x Sn</td></tr> <tr> <td>Distance T</td><td>3 x B</td></tr> <tr> <td>Distance S</td><td>1.5 x B</td></tr> <tr> <td>Distance G</td><td>6 x Sn</td></tr> <tr> <td>Diameter active area B</td><td>Ø 18 mm</td></tr> </table>	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
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											

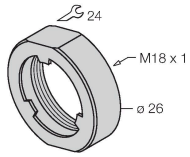
All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

Accessories

PN-M18

6905310

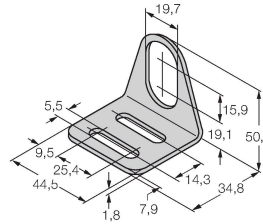
Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)



MW18

6945004

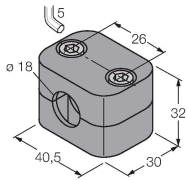
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-18

6901320

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



QM-18

6945102

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.

