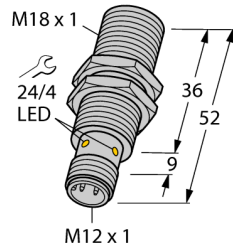


Inductive sensor

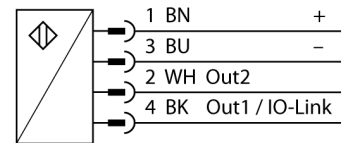
IO-Link Communication and Configuration

BI10U-M18-IOL6X2-H1141



- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- DC 4-wire, 10...30 VDC
- M12 x 1 connector
- Configuration and communication via IO-Link v1.1 or via standard I/O
- Electrical outputs independently configurable
- Switching distance can be parametrized per output and hysteresis
- Identification via 32-byte memory
- Temperature monitoring with adjustable limits
- Various timer and pulse monitoring functions

Wiring Diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. *uprox®3* sensors have significant advantages due to their patented ferrite-coreless multicore system. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization. In addition, the *uprox®3-IO-Link* sensors allow certain parameters to be set within predefined limits and various device functions to be configured to customer needs, using an IO-Link Master. For detailed information refer to the *uprox®3-IO-Link* manual.

Type designation	BI10U-M18-IOL6X2-H1141
Ident no.	1644875
Rated switching distance S_n	10 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0,81 \times S_n) \text{ mm}$
Repeat accuracy	$\leq 2 \% \text{ of full scale}$
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \% U_{ss}$
DC rated operational current	$\leq 150 \text{ mA}$
No-load current I_o	$\leq 20 \text{ mA}$
Residual current	$\leq 0,1 \text{ mA}$
Isolation test voltage	$\leq 0,5 \text{ kV}$
Short-circuit protection	yes/ Cyclic
Voltage drop at I_o	$\leq 1,8 \text{ V}$
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	4-wire, NO/NC, PNP/NPN, IO-Link
Output 1	Switching output or IO-Link mode
Output 2	switching output
Switching frequency	0,5 kHz
IO-Link	
IO-Link Specification	V 1.1
IO-Link port type	Class A
Communication Mode	COM 2 (38,4 kBaud)
Process data width	16 bit
Switchpoint information	2 bit
Status bit information	3 bit
Frame type	2.2
Minimum cycle time	8 ms
Function Pin 4	IO-Link
Function Pin 2	DI
Maximum cable length	20 m
Design	Threaded barrel, M18 x 1
Dimensions	52 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, LCP
Max. tightening torque housing nut	10 Nm
Electrical connection	Connectors, M12 x 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
Packaging unit	1

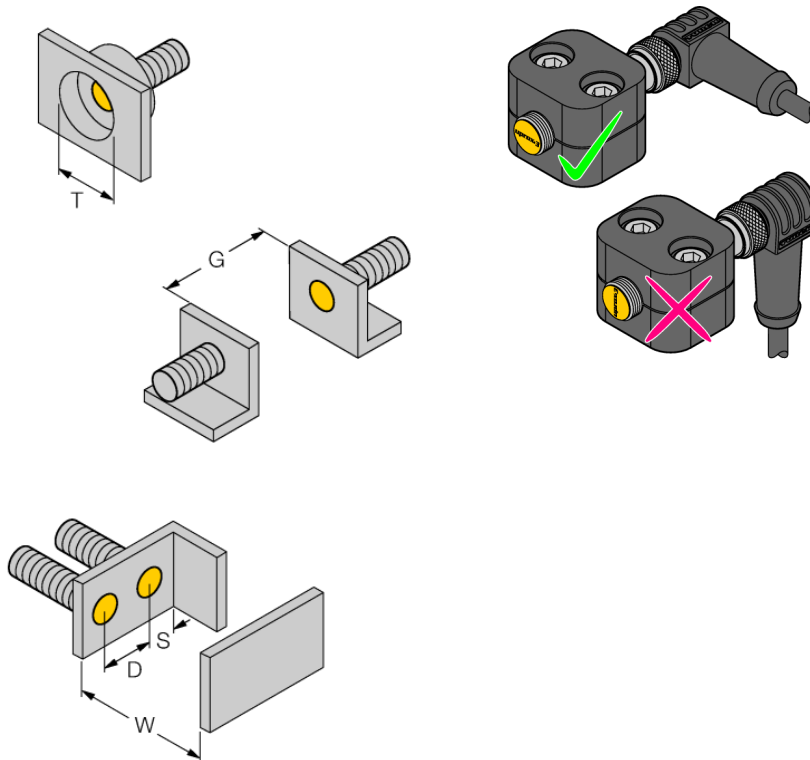
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Power-on indication	LED, Green
Switching state	LED, Yellow

Inductive sensor
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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

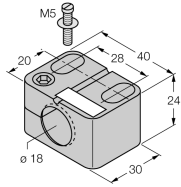
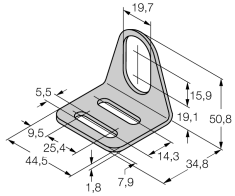
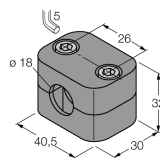
Diameter active area B	Ø 18 mm
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When installing the sensor in combination with the illustrated half-shell-clamp, observe its correct alignment towards the clamp. For this, see the uprox-lettering on the front cap of the sensor and the adjacent installation drawing.

Inductive sensor
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Accessories

Type code	Ident no.	Description	
BST-18B	6947214	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
MW-18	6945004	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	
USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port	