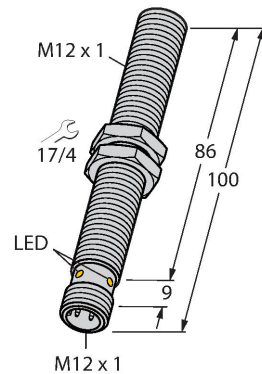


BI4U-M12-VP6X-H1141 L100

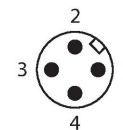
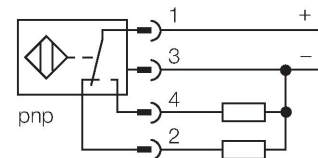
Inductive Sensor – With Extended Switching Distance



Features

- M12 × 1 threaded barrel
- 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 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.

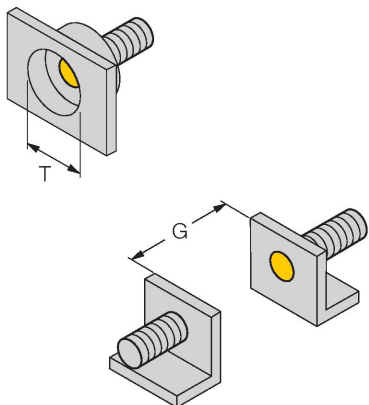
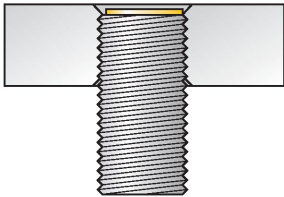
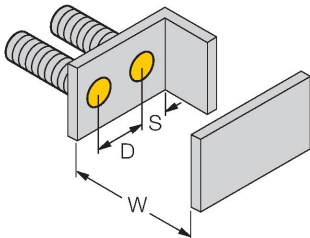
Technical data

Type	BI4U-M12-VP6X-H1141 L100
ID	100000636
General data	
Rated switching distance	4 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \%$ U_{ss}
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_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
DC field stability	300 mT
AC field stability	300 mT _{ss}
Switching frequency	3 kHz
Mechanical data	
Design	Threaded barrel, M12 x 1

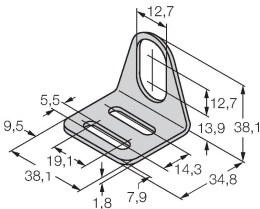
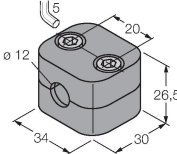
Technical data

Dimensions	100 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, LCP
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 × 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>24 mm</td></tr><tr><td>Distance W</td><td>12 mm</td></tr><tr><td>Distance T</td><td>36 mm</td></tr><tr><td>Distance S</td><td>18 mm</td></tr><tr><td>Distance G</td><td>24 mm</td></tr><tr><td>Diameter active area B</td><td>Ø 12 mm</td></tr></table>	Distance D	24 mm	Distance W	12 mm	Distance T	36 mm	Distance S	18 mm	Distance G	24 mm	Diameter active area B
Distance D	24 mm											
Distance W	12 mm											
Distance T	36 mm											
Distance S	18 mm											
Distance G	24 mm											
Diameter active area B	Ø 12 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

QM-12	6945101	Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.
		
BST-12B	6947212	Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6
		
MW-12	6945003	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)
		
BSS-12	6901321	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene
		
PN-M12	6905309	Impact protection nut for M12x1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)
