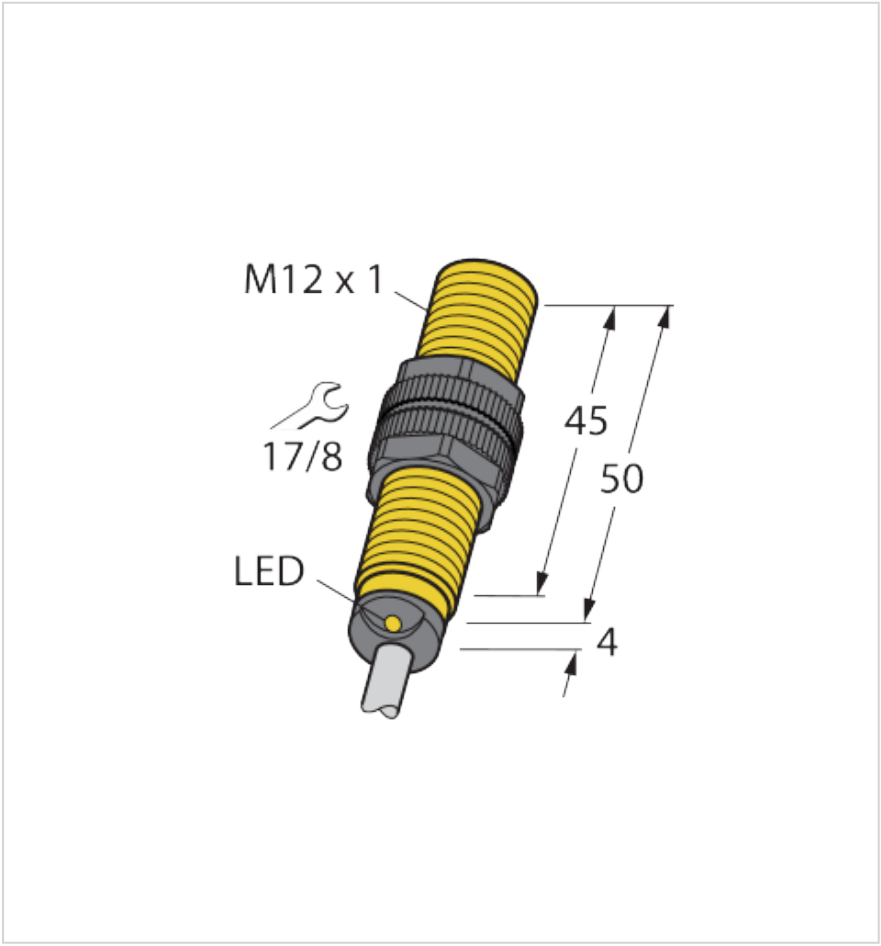
BI1U-S12-AP6X/S1132

Inductive Sensor
With short hysteresis



Type designation	BI1U-S12-AP6X/S1132
Ident-No.	1634930

Technical data

Application area	
Magnetic field immune	Immune to magnetic AC and DC fields
Detection area/measuring range	
Rated switching distance	1 mm
Secured operating distance	≤ (0.81 × Sn) mm
Power supply	
Operating voltage U_B	10...30 VDC

Features

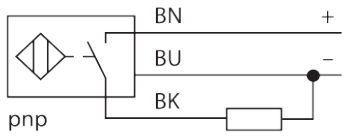
- M12 × 1 threaded barrel
- Plastic, PA6-GK15
- Factor 1 for all metals
- Degree of protection IP68
- Resistant to magnetic fields
- Recessed mountable
- For temperatures up to +100 °C
- Very short hysteresis
- DC 3-wire, 10…30 VDC
- NC, PNP output
- Cable connection

| 05-08-2026 09:08 | Subject to technical changes |

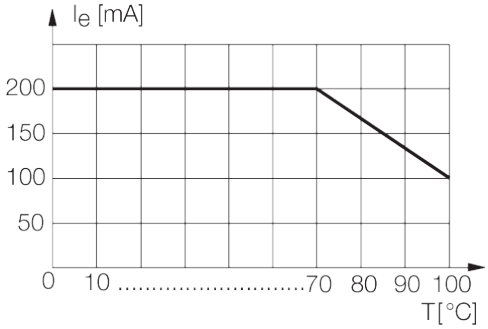
Technical data

Voltage drop at I_e	≤ 1,8 V
Electrical data	
AC field stability	300 mT_{SS}
No-load current	25 mA
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes/Complete
DC field stability	300 mT
DC rated operational current	≤ 200 mA
Isolation test voltage	≤ 0,5 kV
Rated operational current	See derating curve
Residual current	≤ 0,1 mA
Residual ripple	≤ 10 % U_{ss}
Switching frequency	2 kHz
Accuracy/deviation	
Hysteresis	3 % v. E...10 % v. E.
Temperature drift	10 %
Hysteresis	0.03 .. 0.1 mm
Repeat accuracy	≤ 2 % v. E.
	≤ ± 20 %, ≤ -25 °C , ≥ +70 °C
Mechanical data	
Design	Threaded barrel, M12 x 1
Construction type designation	S12
	⌀ 12 mm
Housing material	Plastic, PA6-GK15
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque of housing nut	1 Nm
Electrical connection	Cable
Pressure resistant	no
Thread length	45 mm
Thread size	M12 × 1
Mounting conditions	Flush
Cable	
Cable length	2 m
Core cross-section	3 x 0,5 mm²
Cable type	LifYY-T105

Wiring Diagram



Derating Curve



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.

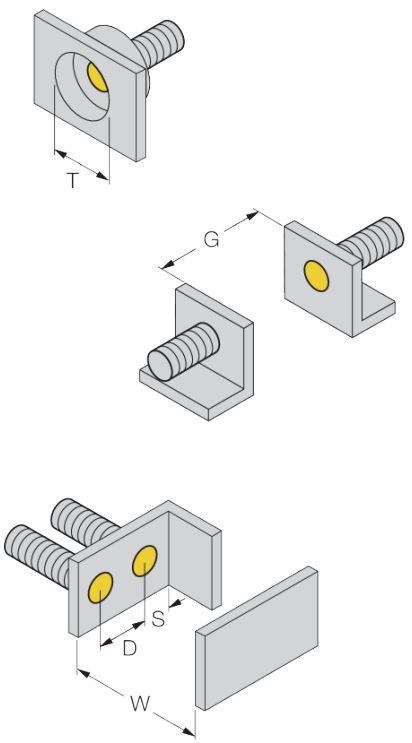
| 05-08-2026 09:08 | Subject to technical changes |

Technical data

External Diameter of the Cable	Ø 5,2 mm
Cable Jacket Material	PVC
Ambient conditions	
Ambient temperature	-25...+100 °C
Pollution degree	3
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP68
Tests/approvals	
MTTF	874 Years acc. to SN 29500 (Ed. 99) 40 °C
Displays/controls	
Switching state	LED, Yellow
Other properties	
RoHs compatibility	yes
Comments	
Special version	S1132 = Maximum ambient temperature = 100 °C Hysteresis 0.03 … 0.1 %
Remark to product	replaces article 1634800 Bi1U-S12-AP6X/S100

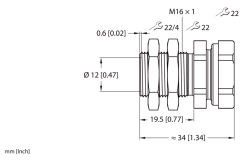
| 05-08-2026 09:08 | Subject to technical changes |

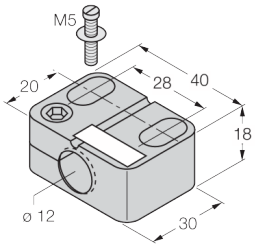
Assembly instructions



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: 12 mm

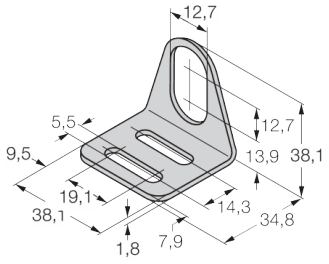
Mounting accessories

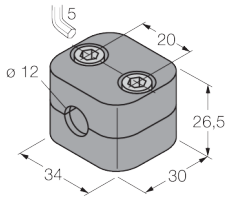
QM-12	6945101
	Quick-mount bracket with dead-stop; material: chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

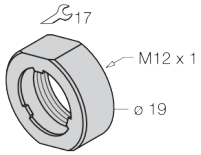
BST-12B	6947212
	Mounting bracket for threaded barrel sensors, with dead-stop; material: PA6

| 05-08-2026 09:08 | Subject to technical changes |

Mounting accessories

MW12	6945003
	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-12	6901321
	Mounting bracket 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)

| 05-08-2026 09:08 | Subject to technical changes |