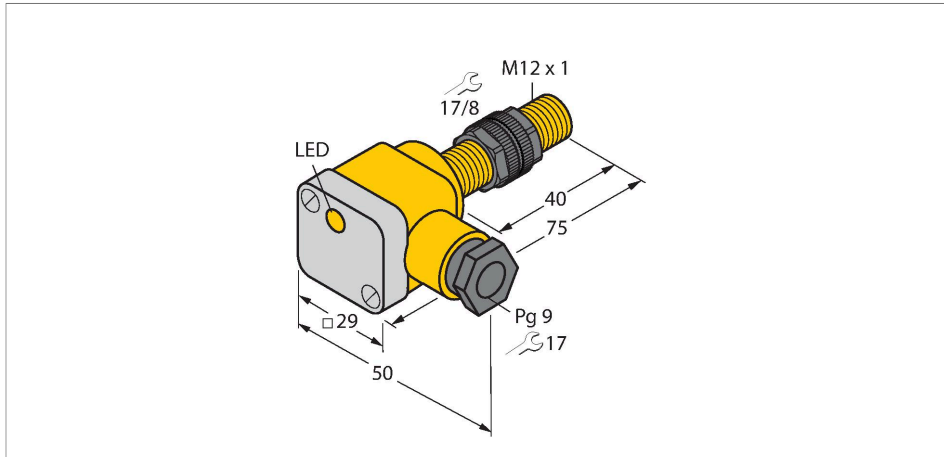


BI2-P12SK-AD4X/S80

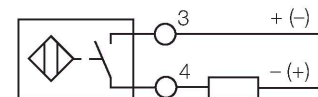
Inductive Sensor – With Increased Temperature Range



Features

- Threaded barrel, M12 x 1
- Plastic, PA12-GF30
- Temperatures up to +80 °C
- DC 2-wire, 10...65 VDC
- NO contact
- Terminal chamber

Wiring diagram



Technical data

Type	BI2-P12SK-AD4X/S80
ID no.	4453051
Special version	S80 corresponds to: Maximum ambient temperature = 80 °C
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × S _n) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 % ≤ ± 20 %, ≥ +70 °C
Hysteresis	1...15 %
Ambient temperature	-25...+80 °C
Operating voltage	10...65 VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 100 mA
Residual current	≤ 0.6 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I _o	≤ 5 V
Wire breakage/Reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	1 kHz

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Special versions are available for ambient temperatures between -40°C and +250°C.

Technical data

Design	Threaded barrel, M12 × 1
Dimensions	75 mm
Housing material	Plastic, PA12-GF30
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
Max. tightening torque of housing nut	1 Nm
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm ²
Cable external diameter	4.5...8 mm
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	6354 years acc. to SN 29500 (Ed. 99) 20 °C
Switching state	LED, Yellow
Included in delivery	cable gland; 2x plastic seals

Mounting instructions

Mounting instructions/Description

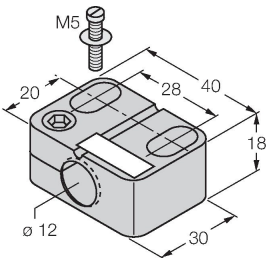


Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 12 mm

Accessories

BST-12B

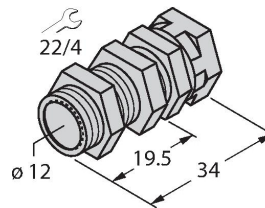
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Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

QM-12

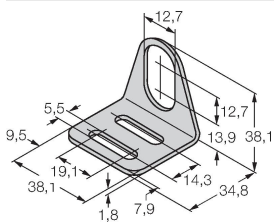
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Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 x 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

MW-12

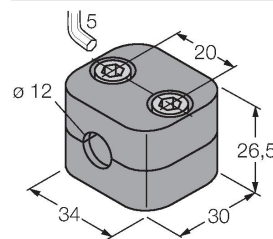
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Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-12

6901321



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