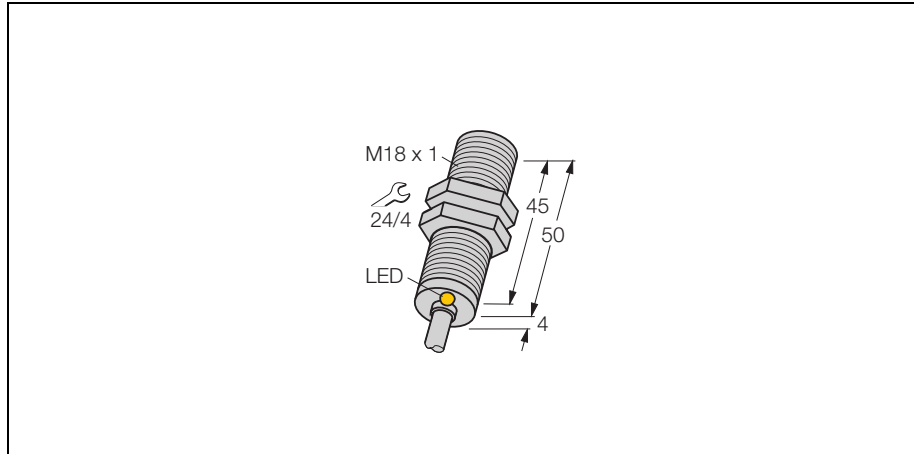
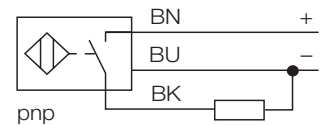


**Inductive sensor
with extended temperature range
Bi5-M18-AP6X/S100**



- Threaded barrel, M18 x 1
- Chrome-plated brass
- for temperatures up to +100°C
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

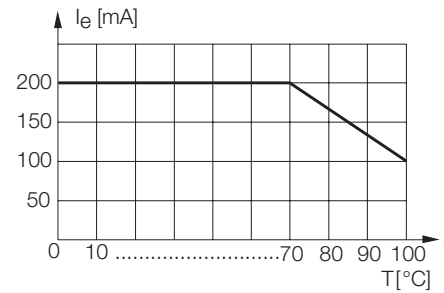
Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil. Special inductive sensors versions can be used at temperatures of -60°C up to +250°C.

derating curve

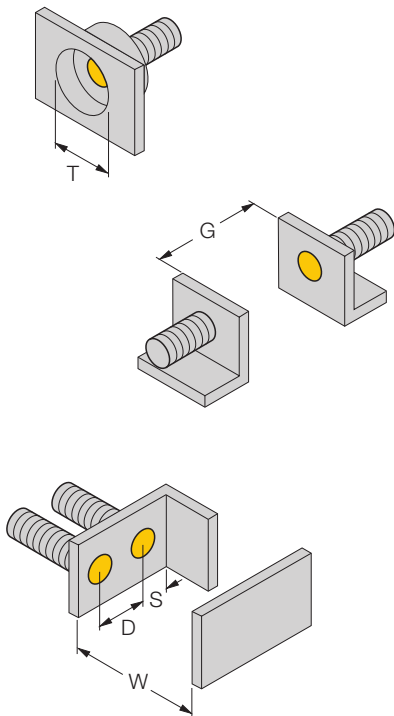


Type	Bi5-M18-AP6X/S100
Ident-No.	4611004
Rated operating distance Sn	5 mm
Mounting condition	flush
Assured sensing range	(0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	2 %
Temperature drift	± 10 % ± 20 %, ≥ +70 °C
Hysteresis	3... 15 %
Ambient temperature	-25...+ 100 °C
Operating voltage	10... 30VDC
Residual ripple	10 % U _{SS}
DC rated operational current	200 mA
Rated operational current	see derating curve
No-load current I ₀	15 mA
Residual current	0.1 mA
Rated insulation voltage	0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I _e	1.8V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Switching frequency	0.5 kHz
Housing	threaded barrel, M18 x 1
Dimensions	54 mm
Housing material	metal, CuZn, chrome-plated
Material active face	plastic, PA6-GF30-X
End cap	plastic, EPTR
Tightening torque of housing nut	25 Nm
Connection	cable
Cable quality	Ø 5.2, LiYY-T105, PVC, 2 m
Cable cross section:	3 x 0.5mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Display switch state	LED yellow

**Inductive sensor
with extended temperature range
Bi5-M18-AP6X/S100**

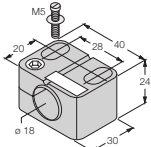
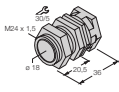
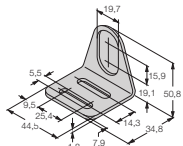
Mounting instructions	minimum distances
Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1,5 x B
Distance G	6 x Sn

Diameter of the active area B	Ø 18 mm
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**Inductive sensor
with extended temperature range
Bi5-M18-AP6X/S100**

Accessories

Type code	Ident-No.	Short text	Dimension drawing
BST-18B	6947214	fixing clamp with dead-stop; material: PA6	
QM-18	6945102	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
MW-18	6945004	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	fixing clamp; material: polypropylene	