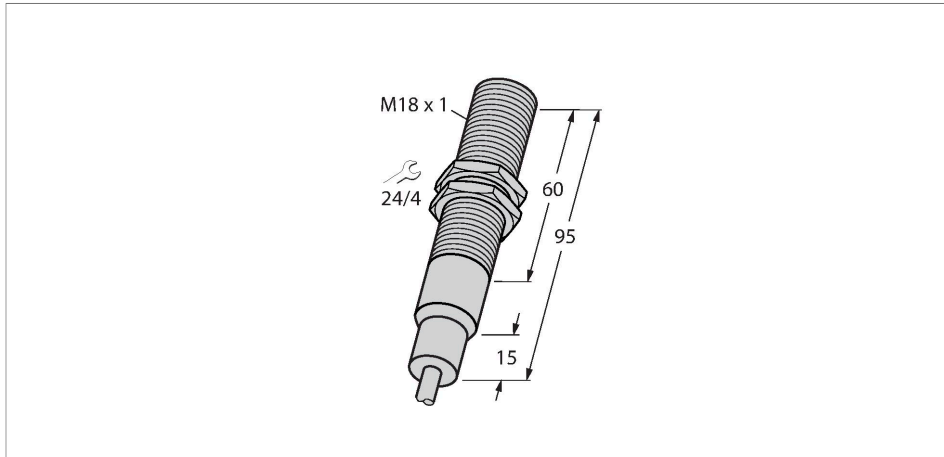


# BI5-EM18-AP6/S907 7M

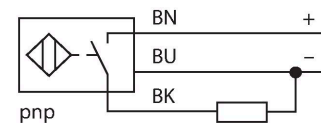
## Inductive Sensor – With Increased Temperature Range



### Features

- Threaded barrel, M18 x 1
- Stainless steel, 1.4571
- Temperatures up to +160 °C
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram



### Technical data

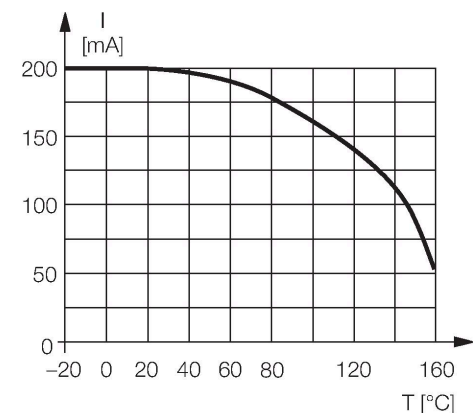
Type	BI5-EM18-AP6/S907 7M
ID	4617426
Special version	S907 corresponds to: Maximum ambient temperature = 160 °C

General data	
Rated switching distance	5 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±20 %
Hysteresis	3...15 %

Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
Rated operational current	See derating curve
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 <sub>o</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP

### 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 -60°C and +250°C.



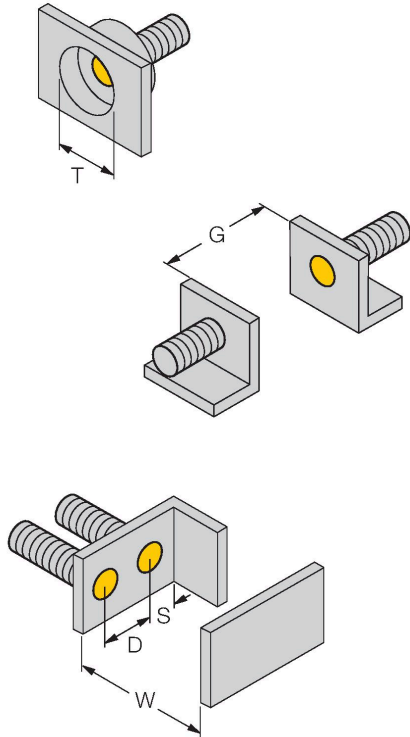
BI5-EM18-AP6/S907 7M | 1/29/2022 08-34 | technical changes reserved

## Technical data

Switching frequency	0.2 kHz
<b>Mechanical data</b>	
Design	Threaded barrel, M18 × 1
Dimensions	95 mm
Housing material	Stainless steel, 1.4571 (AISI 316Ti)
Active area material	Plastic, PEEK
End cap	Plastic, PTFE
Admissible pressure on front cap	≤ 10 bar
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 3.7 mm, PTFE, FEP, 7 m
Core cross-section	3 x 0.34 mm <sup>2</sup>
<b>Environmental conditions</b>	
Ambient temperature	-25...+160 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 IP69K

## Mounting instructions

### Mounting instructions/Description

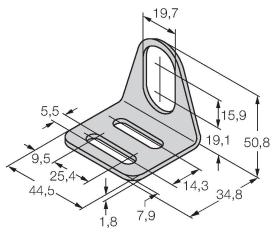


Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 18 mm

## Accessories

MW-18

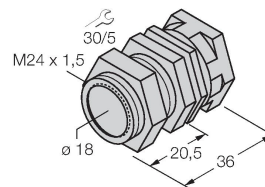
6945004



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

QM-18

6945102



Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.