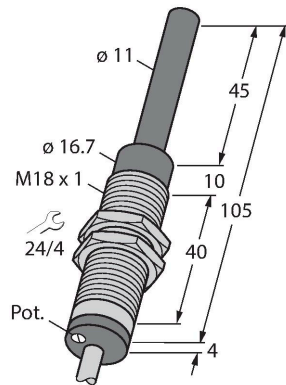


# WI40-M18-LIU5

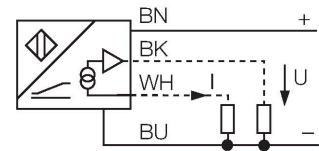
## Inductive Sensor – With Analog Output



### Features

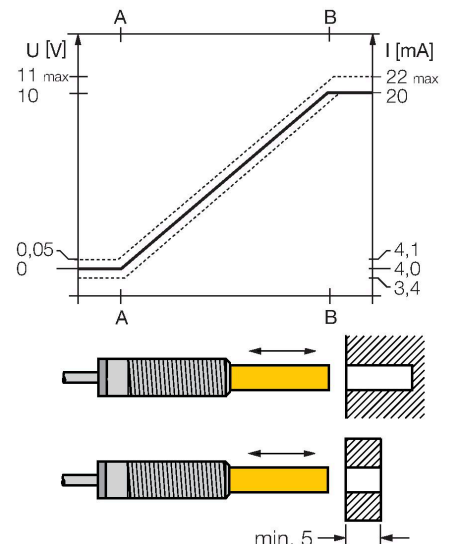
- Threaded barrel, M18 x 1
- Chrome-plated brass
- Potentiometer to adjust the characteristic
- Actuated via short-circuiting ring, blind hole or the like
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 4...20 mA
- Cable connection

### Wiring diagram



### Functional principle

Simple control tasks can be solved with the inductive linear position sensors of the WI series from Turck. They are selectively operated with a non-ferrous metal ring or blind hole and provide a distance proportional, analog output signal.



### Technical data

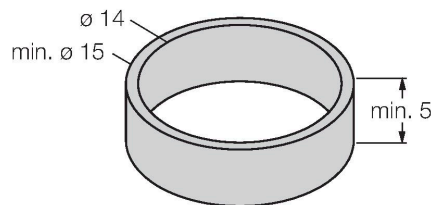
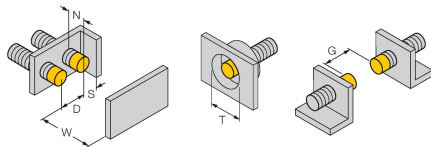
Type	WI40-M18-LIU5
Ident. no.	1536603
Measuring range	0...40 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n) \text{ mm}$
Repeatability	$\leq 1 \%$ of measuring range  A - B  0.5 %, after warm-up 0.5 h
Linearity deviation	$\leq 2 \%$
Temperature drift	$\leq \pm 0.06 \% / K$
Ambient temperature	-25...+70 °C
Operating voltage	15...30 VDC
Residual ripple	$\leq 10 \% U_{ss}$
No-load current	$\leq 8 \text{ mA}$
Isolation test voltage	$\leq 0.5 \text{ kV}$
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	no / Complete
Output function	4-wire, Analog output
Voltage output	0...10 V
Current output	4...20 mA
Load resistance voltage output	$\geq 4.7 \text{ k}\Omega$
Load resistance, current output	$\leq 0.4 \text{ k}\Omega$
Measuring sequence frequency	40 Hz
Design	Threaded barrel, M18 x 1
Dimensions	109 mm

## Technical data

Probe length	45 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PVC rigid, black
End cap	Plastic, PUR, black
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY, PVC, 2 m
Core cross-section	4 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	751 years acc. to SN 29500 (Ed. 99) 40 °C
Included in delivery	brass ring

## Mounting instructions

### Mounting instructions/Description



Distance D	72 mm
Distance W	2 x B
Distance T	5 x B
Distance S	1 x B
Distance G	3 x B
Distance N	55 mm
Diameter active area B	Ø 18 mm

Use non-ferrous metals for ring or blind hole only.

The diameter of the blind hole depends on its wall thickness and the material.

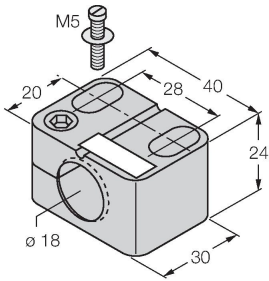
Only the use of the NF-ring, which is included in the delivery, ensures that the values stated in the data sheet are observed.

In case of non-observance or use of a blind hole, the measuring range may be reduced.

## Accessories

**BST-18B**

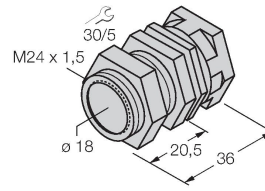
**6947214**



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

**QM-18**

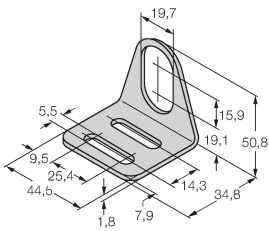
**6945102**



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

**MW-18**

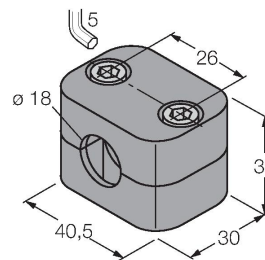
**6945004**



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

**BSS-18**

**6901320**



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