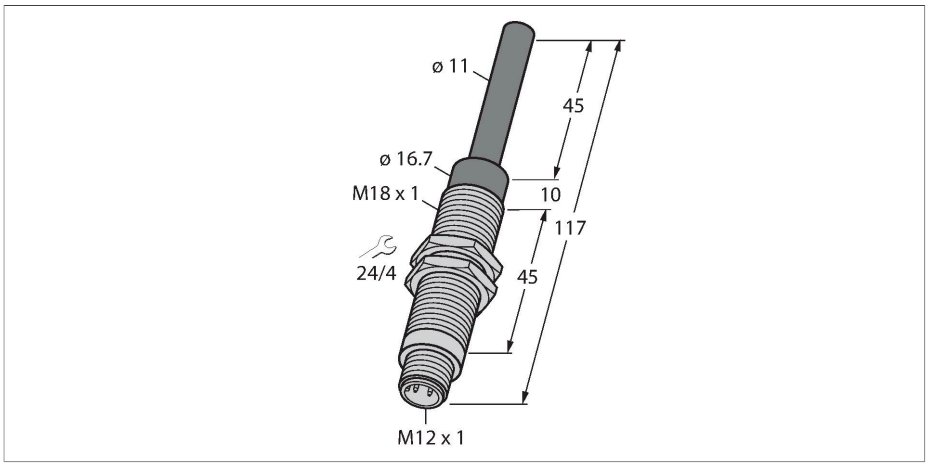
WI40-M18-LIU5-H1141/S250
Inductive Sensor – With Analog Output



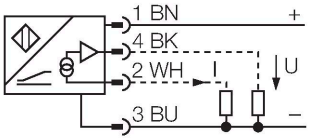
Technical data

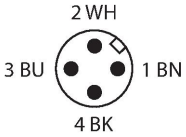
Type	WI40-M18-LIU5-H1141/S250
ID	1536608
Special version	S250 corresponds to: Fixed settings
General data	
Measuring range	0…40 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeatability	≤ 1 % of measuring range |A - B|
	0.5 %, after warm-up 0.5 h
Linearity deviation	≤ 2 %
Temperature drift	≤ ± 0.06 %/K
Electrical data	
Operating voltage	15…30 VDC
Residual ripple	≤ 10 % U_{ss}
No-load current	8 mA
Isolation test voltage	≤ 0.5 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	≥ 4.7 kΩ
Load resistance current output	≤ 0.4 kΩ
Measuring sequence frequency	40 Hz
Mechanical data	
Design	Threaded barrel, M18 x 1

Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Analog output (current and voltage)
- Fixed settings
- Actuated via short-circuiting ring, blind hole or the like
- 4-wire, 15…30 VDC
- Analog output
- 0…10 V and 4…20 mA
- M12 x 1 male connector

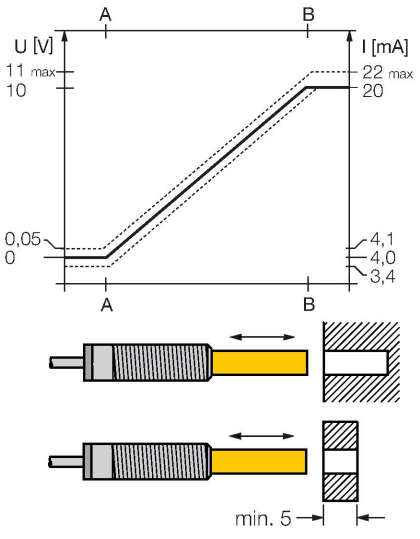
Wiring diagram





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.



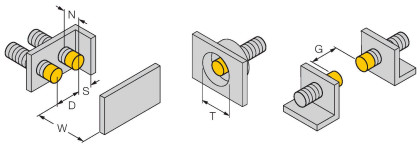
W40-M18-LIU5-H1141/S250| 15-04-2024 10-37 | Technical modifications reserved

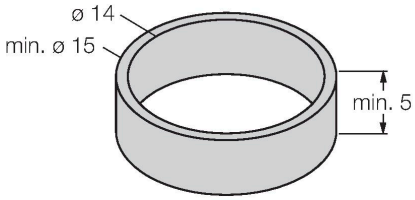
Technical data

Dimensions	117 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PVC rigid, black
End cap	Metal, CuZn
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25…+70 °C
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.

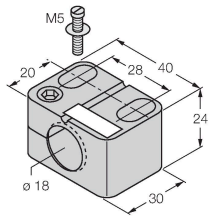
Only the use of the NF-ring, which is included in the delivery, ensures that the values stated in the data sheet are observed.

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

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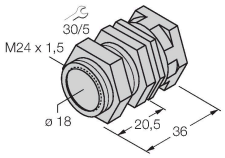
Accessories

BST-18B	6947214



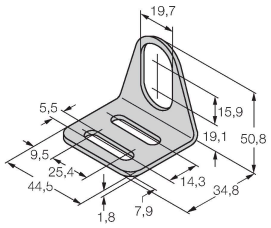
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

QM-18	6945102



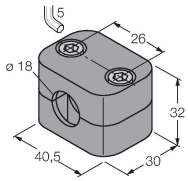
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

MW18	6945004



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

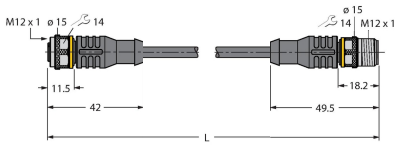
BSS-18	6901320



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

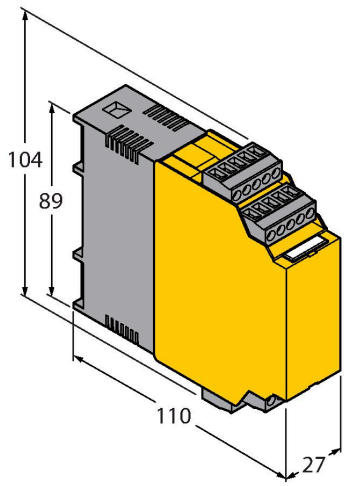
Accessories

Dimension drawing	Type	ID	
	RKC4.301T-0.15-RSC4.334T/TXL	6631382	Extension cable, M12 female/male, straight, 4-pin, cable length: 0.15m, jacket material: PUR, black; cULus approval; Adapter cable for sensors with analog output on pin 2, for connection to analog inputs of fieldbus modules with 4-wire technology



Accessories

Dimension drawing	Type	ID	
	IM43-13-SR	7540041	Trip amplifier; 1-channel; input 0/4…20 mA or 0/2…10 V; supply of 2- or 3-wire transmitters/sensors; limit value adjustment via teach button; three relay outputs with one NO contact each; removable terminal blocks; 27 mm wide; universal voltage supply 20…250 VUC; further Limit value indicators are described in our "Interface Technology" catalog.



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