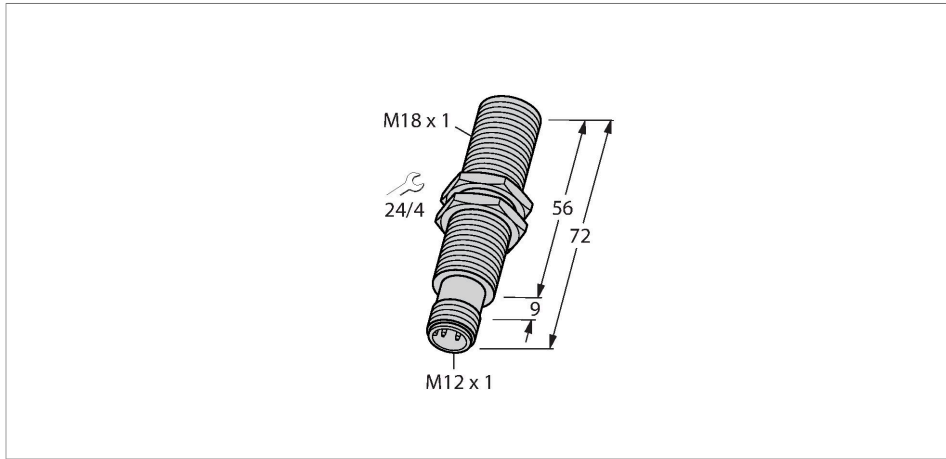


# BI5-M18E-LIU-H1141

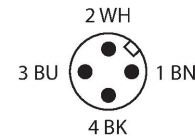
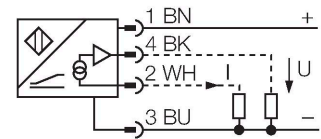
## Inductive Sensor – With Analog Output



### Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- M12 x 1 male connector

### Wiring diagram

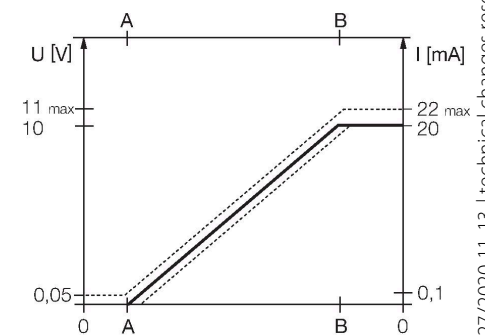


### Technical data

Type	BI5-M18E-LIU-H1141
Ident. no.	1536205
Measuring range	2...4 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 1\%$ of measuring range [A - B]
	0.5 %, after warm-up 0.5 h
Reproducibility	$\leq 20\ \mu\text{m}$
	$\leq 10\ \mu\text{m}$ , after a warm-up time of 0.5 h
Linearity deviation	$\leq 3\%$
Temperature drift	$\leq \pm 0.06\% / \text{K}$
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	0...20 mA
Load resistance voltage output	$\geq 4.7\ \text{k}\Omega$
Load resistance, current output	$\leq 0.4\ \text{k}\Omega$

### Functional principle

Inductive TURCK sensors with analog output accomplish simple control tasks. They provide a current, voltage or frequency signal proportional to the target's distance. The output signal is linear to the distance of the target over the entire sensing range.



## Technical data

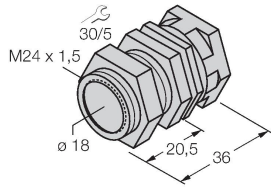
Measuring sequence frequency	200 Hz
Design	Threaded barrel, M18 × 1
Dimensions	72 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Max. tightening torque housing nut	25 Nm
Electrical connection	Connector, M12 × 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	751 years acc. to SN 29500 (Ed. 99) 40 °C

## Mounting instructions

Mounting instructions/Description		
	Distance D	2 x B
	Distance W	12 mm
	Distance T	3 x B
	Distance S	1.5 x B
	Distance G	24 mm
	Diameter active area	Ø 18 mm
	B	

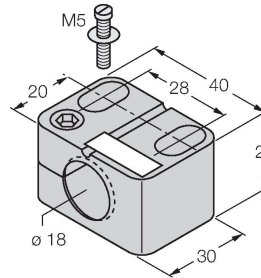
## Accessories

**QM-18** 6945102



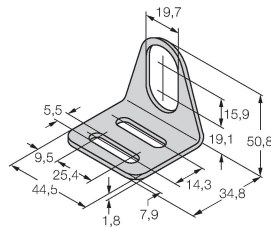
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

**BST-18B** 6947214



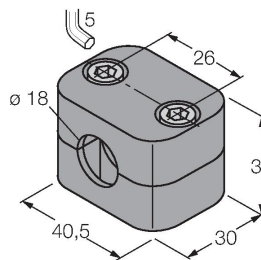
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

**MW18** 6945004




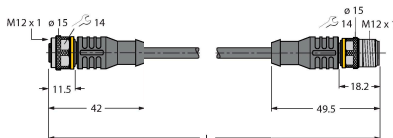
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

**BSS-18** 6901320



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

## Wiring accessories

Dimension drawing	Type	Ident. no.	
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	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