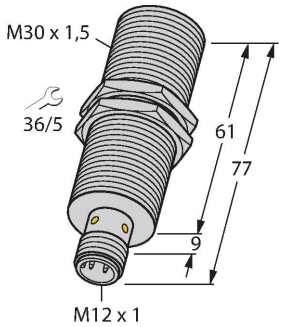
BI15-M30E-LIU-H1141
Inductive Sensor – With Analog Output



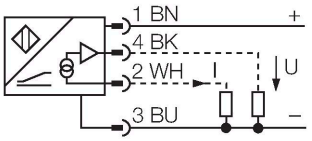
Technical data

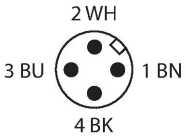
Type	BI15-M30E-LIU-H1141
ID	1535563
General data	
Measuring range	2…10 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 1 % of measuring range |A - B|
	0.5 %, after warm-up 0.5 h
Reproducibility	≤ 80 µm
	≤ 40 µm, after a warm-up time of 0.5 h
Linearity deviation	≤ 5 %
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	0…20 mA

Features

- Threaded barrel, M30 x 1.5
- Long version
- Chrome-plated brass
- 4-wire, 15…30 VDC
- Analog output
- 0…10 V and 0…20 mA
- M12 x 1 male connector

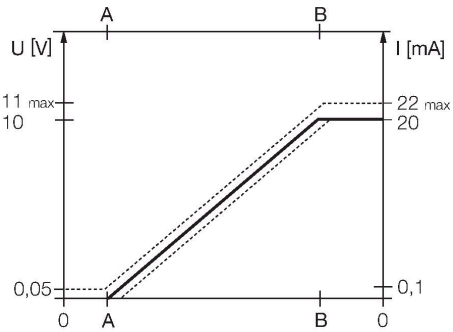
Wiring diagram





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.



BI15-M30E-LIU-H1141| 11/07/2023 13-04 | technical changes reserved

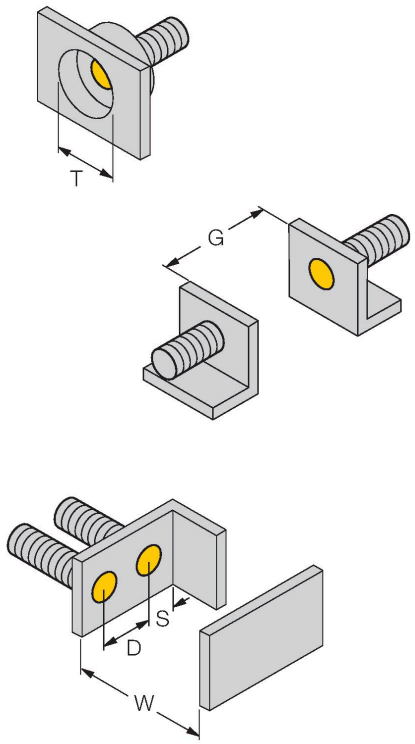
Technical data

Load resistance voltage output	≥ 4.7 kΩ
Load resistance current output	≤ 0.4 kΩ
Measuring sequence frequency	140 Hz
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	77 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Max. tightening torque of housing nut	75 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

BI15-M30E-LIU-H1141| 11/07/2023 13-04 | technical changes reserved

Mounting instructions

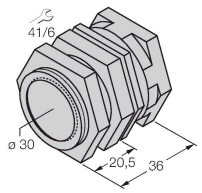
Mounting instructions/Description



Distance D	60 mm
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 30 mm

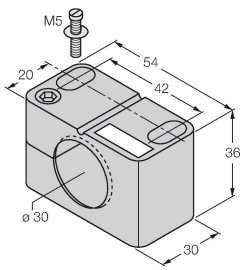
Accessories

QM-30	6945103



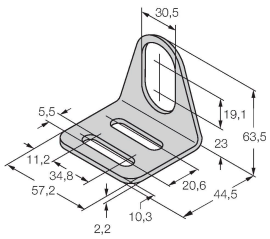
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-30B	6947216



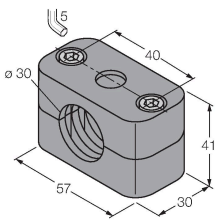
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW-30	6945005



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

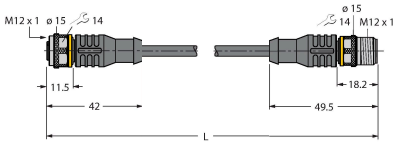
BSS-30	6901319



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

BI15-M30E-LIU-H1141| 11/07/2023 13-04 | technical changes reserved

Wiring accessories

Dimension drawing	Type	ID	
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	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

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TURCK:

BI10-M30-AP6X-H1141 Bi 8U-M18-AP6X IM33-11EX-HI/24VDC NI100U-K90SR-VP4X2-H1141 TX1-Q20L60 BI 5-M18-Y1X-H1141 BI10U-Q14-AP6X2-V1131 MFKS 3-1 BIM-UNT-AP6X-0.3-PSG3M NI 4U-Q8SE-AP6X BIM-IKM-AP6X2-H1141/S34 W/KLI-3 IM31-22EX-I NI10-G18-AZ3X-B1431 50MM C4-A40FX/024VDC FS 4.4-0.5/14.5/NPT NI10U-M12-AP6X RKM 30-2M BIM-IKT-AP6X RK 4T-4/S618 BC5-Q08-AP6X2-V1131 BI30U-CP40-AP6X2 BI4-M12-AN6X-H1141 Bi5-G18-Y1X NI12U-S18-AP6X NI30U-M30-AN6X-H1141 6936233 C9-A41BX/024VADC NI 8U-M12-AN6X-H1141 NI10U-M12E-AP6X-H1141 RKC8T-2/TXL