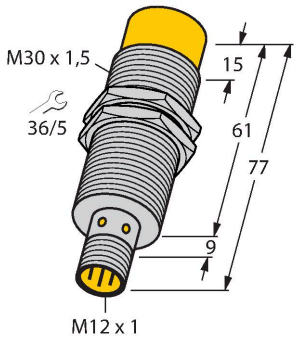
NI12-M30-IOLU69X2-H1141
Inductive Sensor – With Analog Output and IO-Link Communication



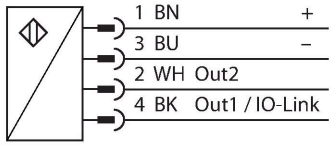
Technical data

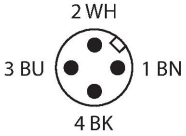
Type	NI12-M30-IOLU69X2-H1141
ID	100001080
General data	
Measuring range	2…12 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 1 % of measuring range |A - B|
	0.25 % of full scale, after 0.5 h warm-up
Linearity deviation	≤ 1 %
Temperature drift	≤ ±3 %
	≤ ± 5 %, ≤ 0 °C, ≥ +50 °C
Electrical data	
Operating voltage U_B	15…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
No-load current	≤ 20 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes
Wire break/reverse polarity protection	no/Complete (analog output restricted)
Communication protocol	IO-Link
Output function	4-wire, PNP/NPN, analog output
Voltage output	0…10 V
Load resistance voltage output	≥ 4.7 kΩ
Response time	0.0015 s
	At the output

Features

- Threaded barrel, M30 x 1.5
- Long version
- Chrome-plated brass
- Configuration and communication via IO-Link v1.1 or standard I/O
- Adjustable distance value in 12-bit IO-Link process data
- Switchpoint configurable via two teach points
- Switching output freely configurable
- Identification via 32-byte memory
- Temperature monitoring with adjustable limits
- 4-wire, 15…30 VDC
- Analog output, 0…10 V (2…10 V parameterizable)
- M12 × 1 connector

Wiring diagram





Functional principle

Inductive sensors with analog output from TURCK accomplish simple control tasks. They provide a distance-proportional current,

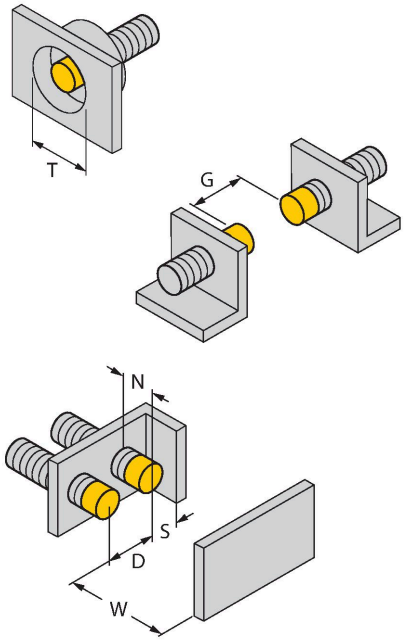
Technical data

IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Communication mode	COM 2 (38.4 kBaud)
Process data width	16 bit
Switchpoint information	1 bit
Status bit information	2 bit
Frame type	2.2
Minimum cycle time	2.3 ms
Function pin 4	IO-Link
Function Pin 2	Analog
Maximum cable length	20 m
Included in the SIDI GSDML	Yes
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
Power-on indication	LED, Green
Switching state	LED, Yellow

voltage or frequency signal. With TURCK analog sensors, this output signal is linear to the distance of the target over the entire sensing range. Using an IO-Link Master also enables various functions to be configured and certain parameters of analog IO-Link sensors to be adjusted within predefined limits to suit customer needs. Please refer to the operating instructions for the analog IO-Link sensor for more detailed information.

Mounting instructions

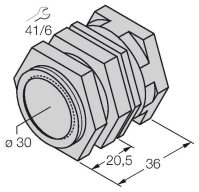
Mounting instructions/Description



Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 30 mm

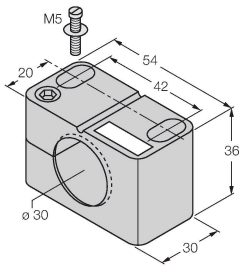
Accessories

QM-30	6945103



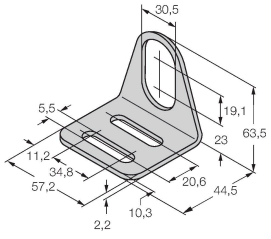
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-30B	6947216



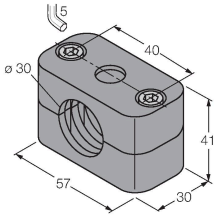
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW30	6945005



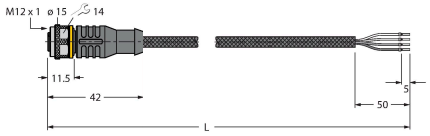
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-30	6901319

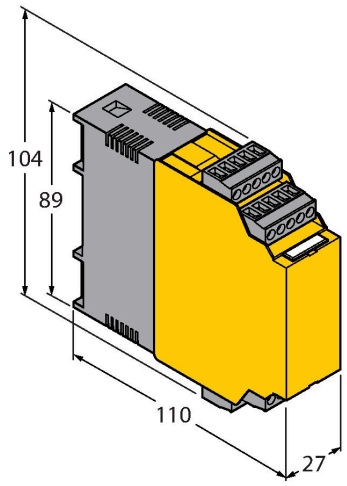
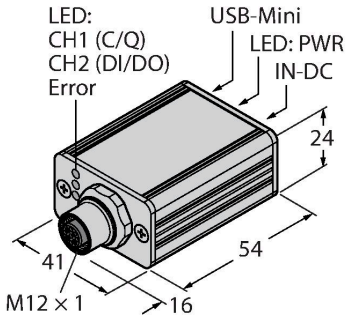


Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

Accessories

Dimension drawing	Type	ID	
	RKC4.4T-2/TXL1001	6628825	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, protective jacket material: aramid fibers, yellow; temperature peak: 200 °C

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.
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port