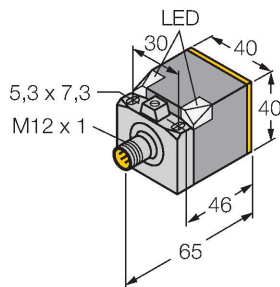


BI11-CK40-IOLU69X2-H1141

Inductive Sensor – With Analog Output and IO-Link Communication



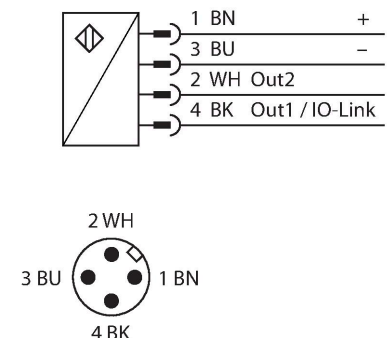
Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- 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

Technical data

Type	BI11-CK40-IOLU69X2-H1141
ID	100001081
General data	
Measuring range	3...11 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
	0.25 % of full scale, after 0.5 h warm-up
Linearity deviation	$\leq 1\%$
Temperature drift	$\leq \pm 3\%$
	$\leq \pm 5\%$, $\leq 0\text{ }^\circ\text{C}$, $\geq +50\text{ }^\circ\text{C}$
Electrical data	
Operating voltage	15...30 VDC
Residual ripple	$\leq 10\%$ U_{ss}
No-load current	20 mA
Isolation test voltage	$\leq 0.5\text{ kV}$
Short-circuit protection	yes
Wire breakage/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	$\geq 4.7\text{ k}\Omega$
Response time	0.0015 s
	At the output

Wiring diagram



Functional principle

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

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	Rectangular, CK40
Dimensions	65 x 40 x 40 mm
	variable orientation of active face in 5 directions
Housing material	Plastic, PBT-GF20-V0, Black
Active area material	Plastic, PA12-GF30, yellow
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	2 × LEDs, Green
Switching state	2 × LEDs, Yellow
Included in delivery	BS1-CK40

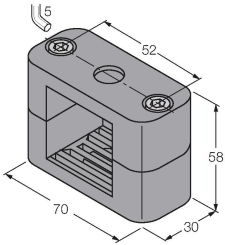
Mounting instructions

Mounting instructions/Description		
	Distance D	2 x B
	Distance W	3 x Sn
	Distance S	1 x B
	Distance G	6 x Sn
	Width active area	40 mm
	B	

Accessories

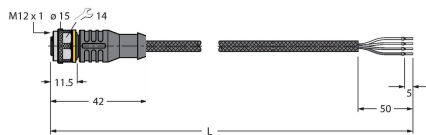
BSS-CP40 6901318

Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene



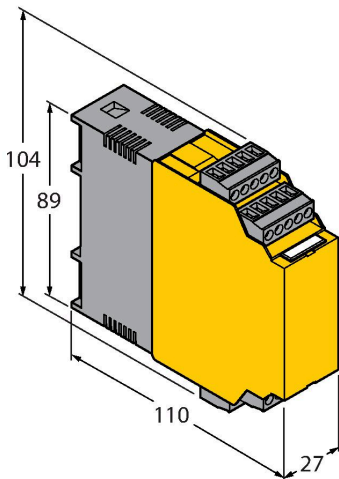
Accessories

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.



Dimension drawing	Type	ID	
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port

