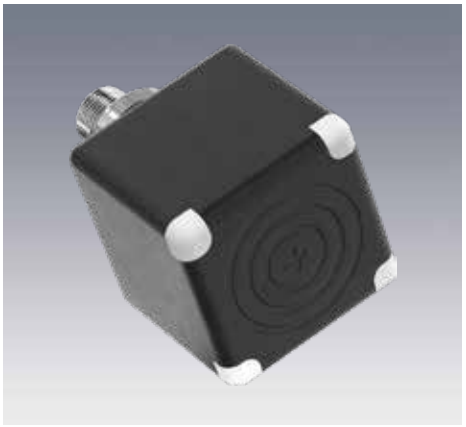
IKT 40

Inductive sensor 40 x 40 / cubic housing



PRODUCT-HIGHLIGHTS

- Easy click-mounting
- Extremely flexible sensor solution
- Enclosure rating IP 68 and IP 69K
- Active area mountable in 5 directions
- Increased switching distance*

Sensor data	
Rated operating distance S_n	20 mm[1] / 40 mm[2]
Ensured operating distance S_a	≤ 16.2 mm[1] / ≤ 32.4 mm[2]
Hysteresis	≤ 15 % S_r typ.[3]
Repeatability	≤ 0.75 mm[1] / ≤ 1.5 mm[2]
Temperature drift	≤ 10 % S_r
Correction factor steel FE 360	1
Correction factor V2A 1 / 2 mm	0.78[1] / 0.85[2]
Correction factor CuZn	0.4[1] / 0.25[2]
Correction factor Al	0.34[1] / 0.2[2]
Correction factor Cu	0.3[1] / 0.1[2]

Functions	
Indicator LED, green	Operating voltage indicator
Indicator LED yellow	Switching output indicator
Adjustment possibilities	N.O. / N.C. Wide variety of adjustment possibilities via IO-Link
Default settings	N.O. / N.C.

Electrical data	
Operating voltage, $+U_B$	10 … 30 V DC
Residual ripple	≤ 10 % U_B
No-load current, I_0	≤ 30 mA
Output current, Ie	≤ 200 mA
Protective circuits	Induction protection / reverse-polarity protection, U_B / short-circuit protection (Q)
Residual current	≤ 0.01 mA
Voltage drop, U_D	≤ 2.5 V DC at 200 mA
Switching output, Q	PNP
Output function	N.O./N.C.[4]
Switching frequency f (ti/tp 1:1)	≤ 0.1 kHz

Mechanical data	
Dimensions	40 mm x 40 mm x 67 mm
Mounting	Flush / non-flush (see selection table)
Enclosure rating	IP 68 / IP 69K[5]
Material housing	PA GF
Material active surface	PA GF
Type of connection	Metal plug, M12x1, 4-pin
Ambient temperature: operation	-25 … +85 °C
Ambient temperature: storage	-25 … +85 °C
Weight	120 g[1] / 130 g[2]
Vibration and impact resistance	EN IEC 60947-5-2
Tightening torque	2.5 Nm
Standard target FE 360	60 mm x 60 mm x 1 mm[1] / 120 mm x 120 mm x 1 mm[2]

IO-Link	
Communication mode	COM 2
Min. cycletime	10.4 ms
SIO mode	Compatible
Length process data	2 Bit
Specification	1.1
ISDU	Not compatible

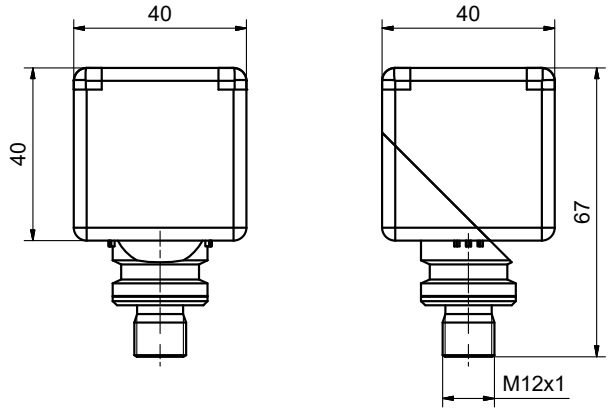
[1] Flush devices [2] Non-flush devices [3] S_r (Effective switching distance) = ± 10 % of S_n [4] Adjustable / parameterisable via IO-Link [5] With connected IP 68 / IP 69K plug

All data measured according to standard EN IEC 60947-5-2 with U_B = 20 ... 30 V DC, T_A = 23 °C ± 5 °C
The switching distance of the sensor must be multiplied by the correction factor of the material. The switching distance on aluminium is thus $S_{n\,AL} = S_n \times CF_{AL}$.
For flush mounting the distance is multiplied by the additional correction factor of the backing material, S_n Al= $S_n \times CF_{AL} \times CF_{\text{mounting material}}$

Switching distance	Mounting	Switching output	Type of connection	Part number	Article number
20 mm	Flush	PNP	Metal plug, M12x1, 4-pin, IO-Link	IKT 40-S-B2-PSL-L4M	996-01042
40 mm*	Non-flush	PNP	Metal plug, M12x1, 4-pin, IO-Link	IKT 40-S-NB3-PSL-L4M	996-01043

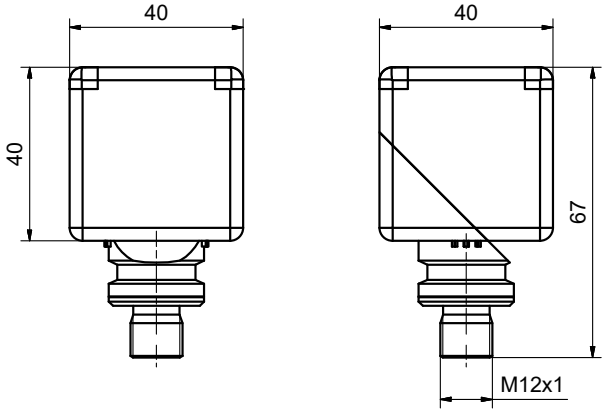
Plug connection[1]

153-13629



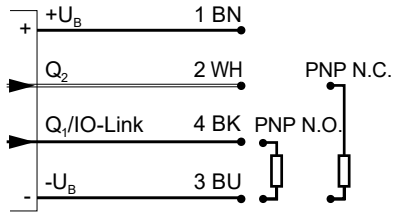
Plug connection[2]

153-13630



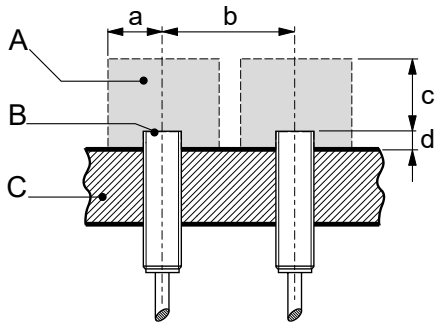
Connection, 4-pin, IO-Link

154-00594



Mounting

155-03390



A: Metal-free zone	a: 25 mm[1] / 80 mm[2]
B: Active surface	b: 60 mm[1] / 150 mm[2]
C: Backing material	c: 30 mm[1] / 90 mm[2]
	d: -[1] / 40 mm[2]

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