IMT 8

Inductive sensor M8 / increased switching distance / analogue output



PRODUCT-HIGHLIGHTS

- Long sensing range
- Outstanding accuracy and temperature stability
- Resolution in µm range
- Analogue output 0 … 10 V

Sensor data	
Operating range	0 ... 4 mm
Resolution static	≤ 0.1 µm
Resolution dynamic	≤ 0.52 µm
Repeatability	± 0.2 mm
Temperature drift	≤ 5 % (0 … +70 °C) ≤ 10 % (-25 … 0 °C)
Correction factor steel FE 360	1
Correction factor V2A	0.76
Correction factor CuZn	0.5
Correction factor Al	0.4
Correction factor Cu	0.34

Electrical data	
Operating voltage, $+U_B$	15 … 30 V DC
Residual ripple	≤ 20 % U_B
No-load current, I_0	≤ 10 mA
Protective circuits	Reverse-polarity protection, U_B / short-circuit protection (Q)
Load current at voltage output	≤ 15 mA
Power-on delay	≤ 20 ms
Max. load at current output	400 Ω (U_B = 15 V) / 1 kΩ (U_B = 30 V)
Bandwidth	1.6 kHz

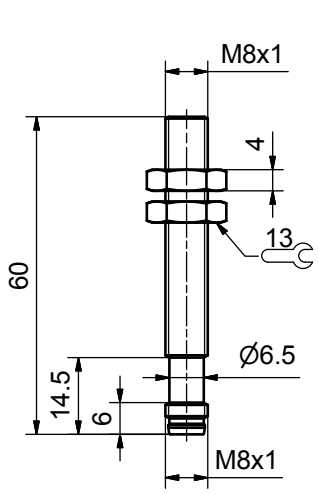
Mechanical data	
Dimensions	M8 x 60 mm
Mounting	Quasi-flush
Enclosure rating	IP 67[1]
Material housing	Brass, chrome-plated
Material active surface	PBTP
Type of connection	Metal plug, M8x1, 3-pin
Ambient temperature: operation	-25 … +70 °C
Ambient temperature: storage	-25 … +70 °C
Weight	17 g
Vibration and impact resistance	EN IEC 60947-5-2
Tightening torque	8 Nm
Standard target FE 360	12 mm x 12 mm x 1 mm

[1] With connected IP 67 plug

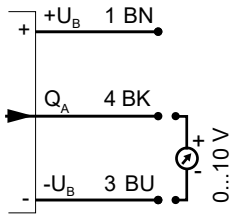
All data measured according to standard EN IEC 60947-5-2 with U_B = 20 ... 30 V DC, T_A = 23 °C ± 5 °C
The switching distance of the sensor must be multiplied by the correction factor of the material. The switching distance on aluminium is thus $S_{n\,AL} = S_n \times CF_{AL}$.
For flush mounting the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

Operating range	Analogue output	Type of connection	Part number	Article number
0 ... 4 mm	0 … 10 V	Metal plug, M8x1, 3-pin	IMT 8-A-QB3-PS-M3M	996-01033

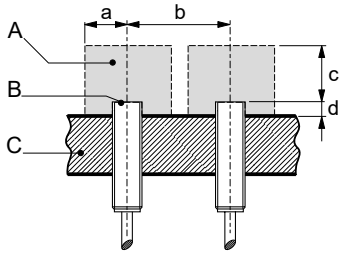
Plug connection



Connection, 3-pin



Mounting



A: Metal-free zone	a: 8 mm
B: Active surface	b: 12 mm
C: Backing material	c: 12 mm
	d: 1 mm

Signal process

