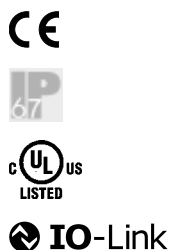


IMT 30

Inductive sensor M30 / standard switching distance



PRODUCT-HIGHLIGHTS

- Various parameterization options
- IO-Link 1.1

Sensor data		Functions	
Rated operating distance S_n	10 mm ¹ / 25 mm ²	Indicator LED yellow	Switching output indicator
Ensured operating distance S_b	$\leq 8.1 \text{ mm}^1 / \leq 20.25 \text{ mm}^2$	Adjustment possibilities	N.O. / N.C. Wide variety of adjustment possibilities via IO-Link
Hysteresis	$\leq 20 \% S_r \text{ typ.}^3$	Default settings	N.O.
Repeatability	$\leq 0.5 \text{ mm}^1 / \leq 0.75 \text{ mm}^2$		
Temperature drift	$\leq 10 \% S_r$		
Correction factor steel FE 360	1		
Correction factor V2A	0.8 ¹ / 0.6 ²		
Correction factor CuZn	0.55 ¹ / 0.5 ²		
Correction factor Al	0.45 ¹ / 0.7 ²		
Correction factor Cu	0.4 ¹ / 0.4 ²		
Electrical data		Mechanical data	
Operating voltage, $+U_b$	10 ... 30V DC	Dimensions	M30 x 63,5 mm
Residual ripple	$\leq 20 \% U_b$	Mounting	Flush / non-flush (see selection table)
No-load current, I_o	$\leq 10 \text{ mA}$	Enclosure rating	IP 67 ⁵
Output current, I_e	$\leq 200 \text{ mA}$	Material housing	Brass, chrome-plated ¹ / Brass, nickel-plated ²
Protective circuits	Induction protection / reverse-polarity protection, U_b / short-circuit protection (Q)	Material active surface	PBTP Crastin ¹ / PBTP ²
Residual current	$\leq 0.1 \text{ mA}$	Type of connection	Metal plug, M12x1, 4-pin
Voltage drop, U_D	$\leq 2.0 \text{ V DC at } 200 \text{ mA}$	Ambient temperature: operation	-25 ... +70 °C
Switching output, Q	PNP	Ambient temperature: storage	-25 ... +70 °C
Output function	N.O./N.C. ⁴	Weight	130 g ¹ / 125 g ²
Power-on delay	$\leq 70 \text{ ms}$	Vibration and impact resistance	EN IEC 60947-5-2
Switching frequency f (ti/tp 1:1)	$\leq 1.2 \text{ kHz}^1 / \leq 0.2 \text{ kHz}^2$	Tightening torque	70 Nm
		Standard target FE 360	30 mm x 30 mm x 1 mm ¹ / 75 mm x 75 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) = $\pm 10 \%$ of S_n ⁴ Adjustable / parameterisable via IO-Link ⁵ With connected IP 67 plug



All data measured according to standard EN IEC 60947-5-2 with $U_b = 20 \dots 30 \text{ V DC}$, $T_A = 23 \text{ °C} \pm 5 \text{ °C}$

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, $S_n,Al = S_n \times CF_{AL} \times CF_{mounting\ material}$.

Switching distance	Mounting	Switching output	Type of connection	Part number	Article number
10 mm	Flush	PNP	Metal plug, M12x1, 4-pin, IO-Link	IMT 30-S-B2-PSL-L4M	996-01012
25 mm	Non-flush	PNP	Metal plug, M12x1, 4-pin, IO-Link	IMT 30-S-NB2-PSL-L4M	996-01013

