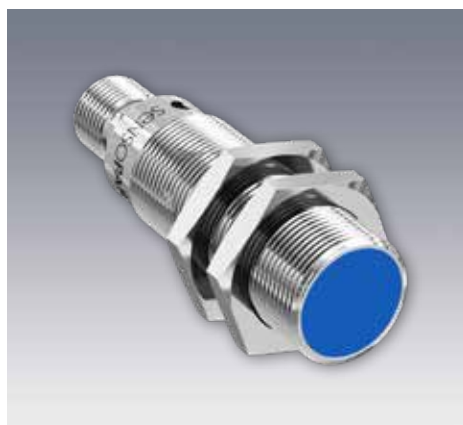


# IMT 18

## Inductive sensor M18 / increased switching distance



### PRODUCT-HIGHLIGHTS

- Increased switching distance
- Excellent repeatability
- IO-Link 1.1

Sensor data		Functions	
Rated operating distance $S_n$	12 mm <sup>1</sup> / 20 mm <sup>2</sup>	Indicator LED yellow	Switching output indicator
Ensured operating distance $S_B$	$\leq 9.72 \text{ mm}^1 / \leq 16.2 \text{ mm}^2$	Adjustment possibilities	N.O. / N.C.
Hysteresis	$3 \% S_r \leq \text{Hyst} \leq 15 \% S_r^3$	Default settings	Wide variety of adjustment possibilities via IO-Link
Repeatability	$\leq 0.6 \text{ mm}^1 / \leq 1 \text{ mm}^2$		N.O.
Temperature drift	$\leq 10 \% S_r$		
Correction factor steel FE 360	1		
Correction factor V2A	0.67 <sup>1</sup> / 0.69 <sup>2</sup>		
Correction factor CuZn	0.4 <sup>1</sup> / 0.5 <sup>2</sup>		
Correction factor Al	0.3 <sup>1</sup> / 0.44 <sup>2</sup>		
Correction factor Cu	0.26 <sup>1</sup> / 0.42 <sup>2</sup>		
Electrical data		Mechanical data	
Operating voltage, $+U_B$	10 ... 30V DC	Dimensions	M18 x 63,5 mm
Residual ripple	$\leq 20 \% U_B$	Mounting	Quasi-flush / non-flush (see selection table)
No-load current, $I_o$	$\leq 10 \text{ mA}$	Enclosure rating	IP 67 <sup>5</sup>
Output current, $I_e$	$\leq 200 \text{ mA}$	Material housing	Brass, chrome-plated
Protective circuits	Reverse-polarity protection, $U_B$ / short-circuit protection (Q)	Material active surface	PBTP
Residual current	$\leq 0.1 \text{ mA}$	Type of connection	Metal plug, M12x1, 4-pin
Voltage drop, $U_D$	$\leq 2.0 \text{ V DC}$	Ambient temperature: operation	-25 ... +70 °C
Switching output, Q	PNP	Ambient temperature: storage	-25 ... +70 °C
Output function	N.O./N.C. <sup>4</sup>	Weight	56 g
Power-on delay	$\leq 30 \text{ ms}^1 / \leq 60 \text{ ms}^2$	Vibration and impact resistance	EN IEC 60947-5-2
Switching frequency $f$ (ti/tp 1:1)	$\leq 0.6 \text{ kHz}^1 / \leq 0.5 \text{ kHz}^2$	Tightening torque	25 Nm
		Standard target FE 360	36 mm x 36 mm x 1 mm <sup>1</sup> / 60 mm x 60 mm x 1 mm <sup>2</sup>
IO-Link			
Communication mode	COM 2		
Min. cycletime	10,4 ms		
SIO mode	Compatible		
Length process data	7 Bit		
Specification	1.1		
ISDU	Not compatible		

<sup>1</sup> Quasi-flush devices    <sup>2</sup> Non-flush devices    <sup>3</sup>  $S_r$  (Effective switching distance) =  $\pm 10 \%$  of  $S_n$     <sup>4</sup> Adjustable / parameterisable via IO-Link    <sup>5</sup> 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
12 mm	Quasi-flush	PNP	Metal plug, M12x1, 4-pin, IO-Link	IMT 18-S-QB3-PSL-L4M	996-01021
20 mm	Non-flush	PNP	Metal plug, M12x1, 4-pin, IO-Link	IMT 18-S-NB3-PSL-L4M	996-01022

