

### Z-PROX INDUCTIVE PROXIMITY SENSOR

MANUFACTURING PART #  
**WSI-1810-SAAZ**

DIAMETER  
**M18**

SENSING RANGE  
**10 mm**

MOUNTING  
**embeddable**

#### Z-PROX - DESIGNED FOR WELD CELLS

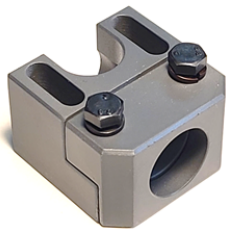
- F1 SENSING PERFORMANCE
- HIGH DURABILITY
- ACTIVSTONE ZG SPATTER RESISTANT COATING



#### Weld-immune full-metal sensor with long operating distance

##### Main features:

- Long operating distance: 10 mm on steel and aluminum
- Full Stainless Steel Construction: Face/Body/Threads/Connector
- Resistant to 50 Hz magnetic fields up to 40 mT
- Extremely robust: one-piece stainless steel housing and sensing face
- F1 (Factor 1) Sensing all metals
- ACTIVSTONE ZG Zirconium Graphite weld-spatter resistant coating



Compatible with mount #WMT-18MM-FXXH

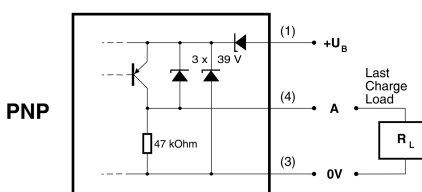
#### Technical data:

(according to IEC 60947-5-2)

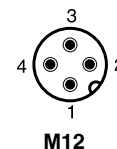
Rated operating distance $s_n$	10 mm
Hysteresis	$\leq 15\% s_r$
Standard target	30 x 30 x 1 mm, FE 360
Repeat accuracy	0,5 mm ( $U_B = 20 \dots 30$ VDC, $T_A = 23 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$ )
Supply voltage range $U_B$	10 ... 30 VDC
Max. ripple content	$\leq 20\% U_B$
Output current	$\leq 200$ mA
Output voltage drop	$\leq 2,0$ V bei / à / at 200 mA
No-load supply current	$\leq 10$ mA
Leakage current	$\leq 0,1$ mA
Switching frequency	$\leq 15$ Hz
Time delay before availability	$\leq 50$ ms
LED (0 ... $s_r$ )	an / allumée / on
Ambient temperature range $T_A$	$-25 \dots + 85 \text{ }^\circ\text{C}$
Temperature drift of $s_r$	$\leq 10\%$
Pressure resistance in "P" area	60 bar max.
Short-circuit protection	eingebaut / intégrée / built-in
Voltage reversal protection	eingebaut / intégrée / built-in
Induction protection	eingebaut / intégrée / built-in
Shocks and vibration	IEC 60947-5-2 / 7.4
Cable length	300 m max.
Weight	54 g
Degree of protection	IP 68 & IP 69K
EMC protection: IEC 60947-5-2 (7.2.3.1)	5 kV
IEC 61000-4-2	Level 4
IEC 61000-4-3	Level 3
IEC 61000-4-4	Level 3
Housing and sensing face material	Edelstahl / acier inox / stainless steel (V2A / 1.4305 / AISI 303)
Sensing face thickness	0,6 mm
Connection	S12

#### Wiring diagram

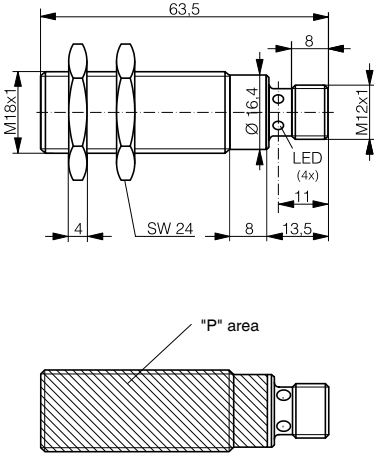
#### WSI-1810-SAAZ



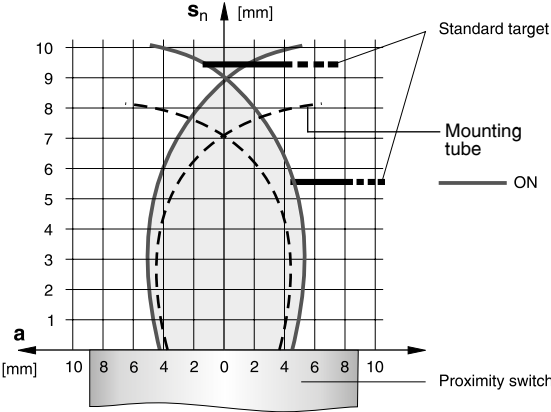
#### Pin assignment (view onto device)



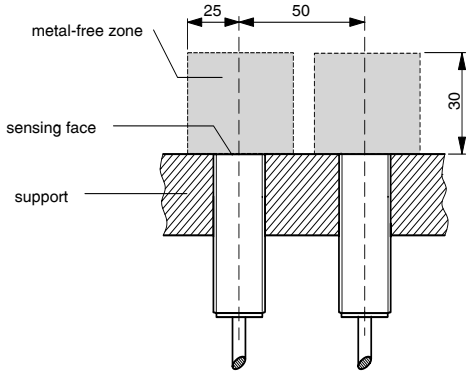
Dimensions: WSI-1810-SAAZ



Response diagram\*:



Installation (Fig. 1):



\* typical values

Correction factors for target of\*:

Steel FE 360	1.0	copper	0.85	aluminum	1.0	brass	1.3	stainless steel 1mm / 2mm thick	0.4 / 0.8
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Correction factors for embeddable mounting (Fig. 1) in support of\*:

Steel FE 360	0.7	aluminum	0.7	brass	0.55	stainless steel	0.65	Mounting Tube	0.75
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Available types:

part number	polarity	connection	output
WSI-1810-SAAZ	PNP	connector M12	N.O.

APPLICATION NOTE

- Product not intended for safety applications.
- Operators of the product are responsible for compliance with measures relating to the protections of persons, equipment, electrical standards and environmental regulations.