

Installation Instructions for the Aerospace Proximity Sensors, IHM Series

Issue 1

32318767

⚠️ WARNING **IMPROPER INSTALLATION**

Consult with safety agencies and their requirements when designing a machine control, interface, and all elements that affect safety. Strictly adhere to all installation instructions.

Failure to comply with these instructions could result in death or serious injury.

⚠️ WARNING **INCORRECT WIRING**

Incorrect wiring will damage units. Strictly adhere to all installation instructions.

Failure to comply with these instructions could result in death or serious injury.

PERFORMANCE SPECIFICATIONS

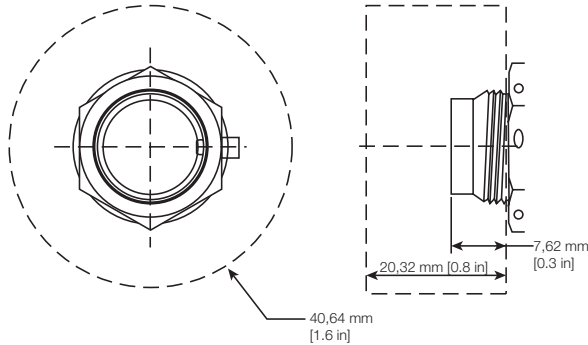
Supply Voltage	Supply Current	Output Type	Output Condition	Termination	Catalog Listing	Wiring*
12 Vdc to 28 Vdc	10 mA max.	Current sink	Target near: $4 \text{ mA} \leq I_o \leq 6 \text{ mA}$ Target far: $12 \text{ mA} \leq I_o \leq 16 \text{ mA}$ Internal fault: $9 \text{ mA} \leq I_o \leq 11 \text{ mA}$ or $I_o < 1 \text{ mA}$	Connector (D38999)	1PXXXX3AXXX	Pin A: Supply excitation (+) Pin B: Output Pin C: Supply return (-)
				Pigtail	1PXXXX3AHXX	White wire with orange stripe: Supply excitation (+) White wire with blue stripe: Output White wire: Supply return
12 Vdc to 28 Vdc	10 mA max.	Open collector (Normally closed)	Target near: Switch open, $I_o < 50 \text{ }^\circ\text{A}$ Target far: Switch close, $V_o < 2 \text{ V}$ @ 250 mA of I_o	Connector (D38999)	1PXXXX3BXXX	Pin A: Supply excitation (+) Pin B: Output Pin C: Supply return (-)
				Pigtail	1PXXXX3BHXX	White wire with orange stripe: Supply excitation (+) White wire with blue stripe: Output White wire: Supply return (-)
12 Vdc to 28 Vdc	10 mA max.	Open collector (Normally open)	Target near: Switch close, $V_o < 2 \text{ V}$ @ 250 mA of I_o Target far: Switch open, $I_o < 50 \text{ }^\circ\text{A}$	Connector (EN2997)	1PXXXX3CXXX	Pin 1: Supply excitation (+) Pin 2: Output Pin 3: Supply return (-) Pin 4, 5: No connection
				Pigtail	1PXXXX3CHXX	White wire with orange stripe: Supply excitation (+) White wire with blue stripe: Output White wire: Supply return (-)

*For M8323 and EN2997, connector variant does not have Pin 4 and 5.
For D38999 connector, variant numbers 1, 2, 3 are represented as A, B, & C.

Keep-out Zone

It is recommended not to place any metal/magnetic material in the keep-out zone other than target material. Placing any material within the keep-out zone will influence the sensor performance.

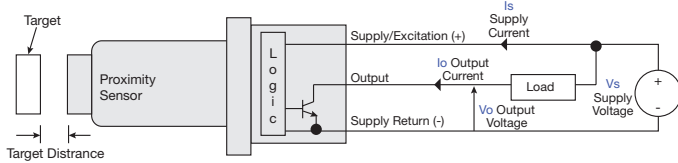
Figure 1. Keep Out Zone Map



Wiring Diagram

The typical electrical wiring shall be made as per Figure 2.

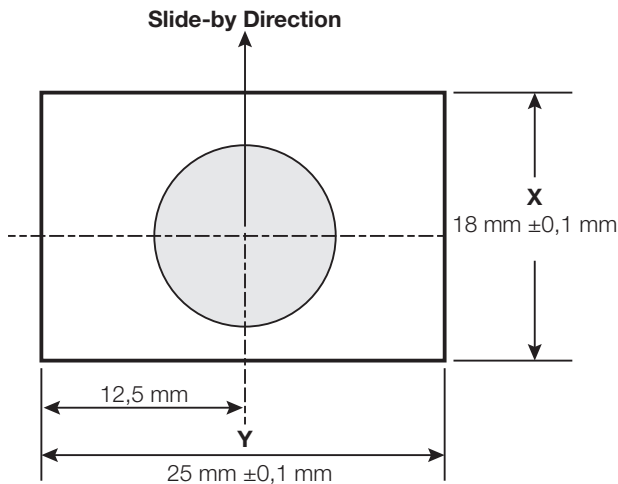
Figure 2. IHM Proximity Switch Wiring Diagram



Target Profile

Target material: Stainless steel 17-4PH heat-treated to condition H1025. Typical thickness of target is 3 mm ±0,1 mm.

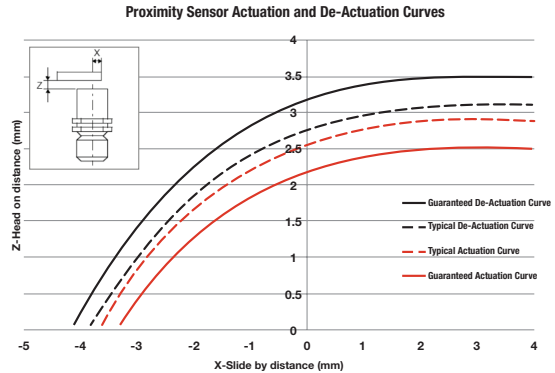
Figure 3. Typical Target Profile



Proximity Switch Actuation and De-Actuation Curves

The proximity switch shall actuate and de-actuate in accordance with the slide-by curves as per Figure 4.

Figure 4. Typical Actuation and De-actuation Curve



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