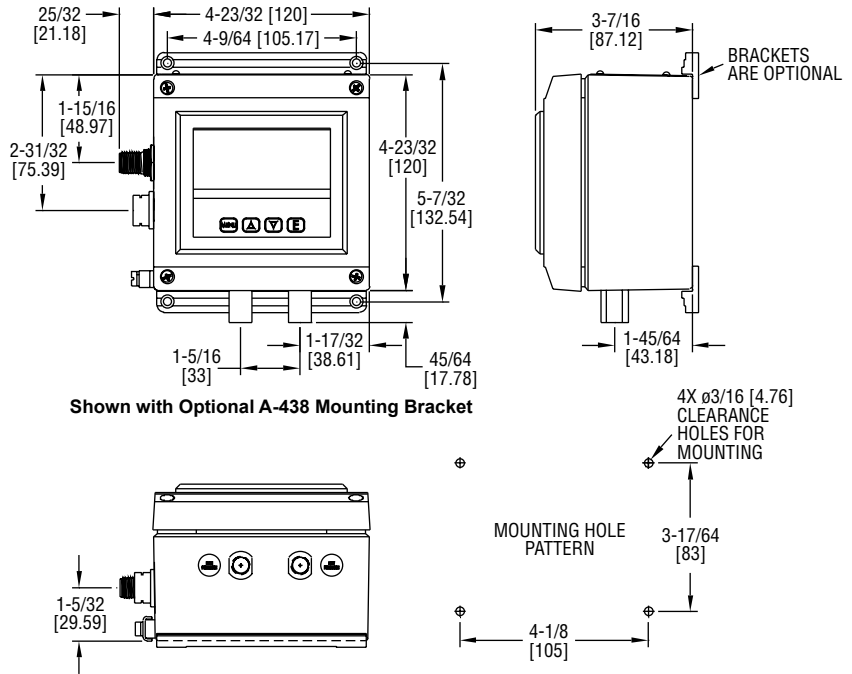


# INTRINSICALLY SAFE DIFFERENTIAL PRESSURE TRANSMITTER

For Hazardous Zone Pressure and Flow Applications



Shown with Optional A-438 Mounting Bracket

The **SERIES ISDP** Differential Pressure Transmitter provides a 4-20 mA process output, a robust NEMA 4X enclosure, plus a large LCD display that can be programmed to read in pressure, velocity or flow. The ISDP offers simplified programming via a Menu key that enables the user to select: security level; English or Metric engineering units; pressure, velocity or flow operation; K-factor for use with various Pitot tubes and flow sensors, circular or rectangular duct size for volumetric flow operation plus many more. The Series ISDP Differential Pressure Transmitter is powered on its two wire loop with 10-35 VDC via its integral M-12 four pin male connector. The ISDP provides a 0.5% full scale accuracy on ranges from 0.25 in w.c. to 100 in w.c. as well as bi-directional models up to 10 in w.c. These features make the Series ISDP Differential Pressure Transmitter the ideal instrument for monitoring pressures or air flows in hazardous zones having a Class I Div. I Groups A, B, C, D; Class II Div. I Groups E, F, G; Class III Div. I ratings.

**FEATURES/BENEFITS**

- NEMA 4X rated enclosure provides protection in harsh environments permitting outdoor monitoring or in areas where dust and particulate matter exists
- Easy to read LCD display provides immediate local alerts allowing corrective action to be taken quicker to eliminate the problem from becoming widespread
- Intrinsically safe for use in the specified hazardous locations meets specifications where pressure transmission and safety cannot be compromised
- Password protected set up menu helps to insure no errors by untrained personnel when accessing the powerful measurement capabilities of this device

**APPLICATIONS**

- Hazardous zone pressure control applications
- Hazardous flow and control applications

MODEL CHART					
Model	Range (in w.c.)	Price	Model	Range (in w.c.)	Price
ISDP-002	0 to 0.25	\$679.00	ISDP-012	0 to ±0.25	\$679.00
ISDP-004	0 to 1	679.00	ISDP-014	0 to ±1.0	679.00
ISDP-006	0 to 5	552.00	ISDP-015	0 to ±2.5	552.00
ISDP-007	0 to 10	552.00	ISDP-016	0 to ±5.0	552.00
ISDP-008	0 to 25	552.00	ISDP-017	0 to ±10	552.00
ISDP-009	0 to 50	552.00			
ISDP-010	0 to 100	552.00			

OPTIONS		
To order add suffix:	Description	Price
-NIST	NIST traceable calibration certificate	\$139.00(Ⓜ)
Example: ISDP-004-NIST		
-FC	Factory calibration certificate	30.00(Ⓜ)
Example: ISDP-004-FC		

(Ⓜ) Items are net priced and are not subject to any discount.

**SPECIFICATIONS**

**Service:** Air and non-corrosive gases.  
**Wetted Materials:** Ranges 5 in w.c. and greater: glass, PVC, silicon, alumina ceramic, epoxy, RTV, gold, aluminum, stainless steel and nickel; Ranges 1 in w.c. and lower: stainless steel, silicone, gold and ceramic.  
**Housing Materials:** Aluminum, glass.  
**Accuracy:** ±0.5% at 77°F (25°C) including hysteresis and repeatability (after 1 hour warm-up).  
**Stability:** < ±1% per year.  
**Pressure Limits:** Ranges ≤ 2.5 in w.c. = 2 psi; 5 in w.c.: 5 psi; 10 in w.c.: 5 psi; 25 in w.c.: 5 psi; 50 in w.c.: 5 psi; 100 in w.c.: 9 psi.  
**Temperature Limits:** 32 to 140°F (0 to 60°C).  
**Compensated Temperature Limits:** 32 to 140°F (0 to 60°C).  
**Thermal Effects:** 0.020%/°F (0.036/°C) from 77°F (25°C).  
**Power Requirements:** 10-35 VDC.  
**Output Signal:** 4 to 20 mA DC.  
**Zero & Span Adjustments:** Accessible via menus.  
**Response Time:** 250 ms (damping set to 1).  
**Display:** 4 digit LCD 0.6" H.  
**Electrical Connections:** M-12 4 PIN Connector.  
**Process Connections:** 1/8" female NPT.  
**Enclosure Rating:** Designed to meet NEMA 4X (IP66).  
**Mounting Orientation:** Mount unit in vertical plane.  
**Weight:** 2 lb 10 oz (1.19 kg).  
**Agency Approvals:** CE: CENELEC EN 61326/55024: 2003; IEC 61000-4-2/3/4/6: 2001/2006/2004/2005; CENELEC EN 55011: 2006; 2004/108/EC EMC Directive. FM Intrinsically Safe CLI Div I GR: A, B, C, D; CLII Div I GR: E, F, G; CLIII Div I.

ACCESSORIES		
Model	Description	Price
A-231	16' (5 m) shielded cable with 4 pin female M-12 connection	\$83.50(Ⓜ)
A-486	4.9' (1 m) shielded cable with 4 pin female M-12 connection	40.00(Ⓜ)
A-487	9.8' (3 m) shielded cable with 4 pin female M-12 connection	45.00(Ⓜ)
A-488	33' (10 m) shielded cable with 4 pin female M-12 connection	78.00(Ⓜ)
A-295	Female 4 pin M-12 to cable gland connector	63.50(Ⓜ)
MTL5041	Intrinsically safe galvanic isolator	790.00(Ⓜ)
MTL7706	Intrinsically safe zener barrier	418.00(Ⓜ)
A-438	Surface mounting brackets	12.50

(Ⓜ) Items are subject to Schedule B discounts.

Process Tubing Options: See page 443 (Gage Tubing Accessories)