



Series  
ISDP

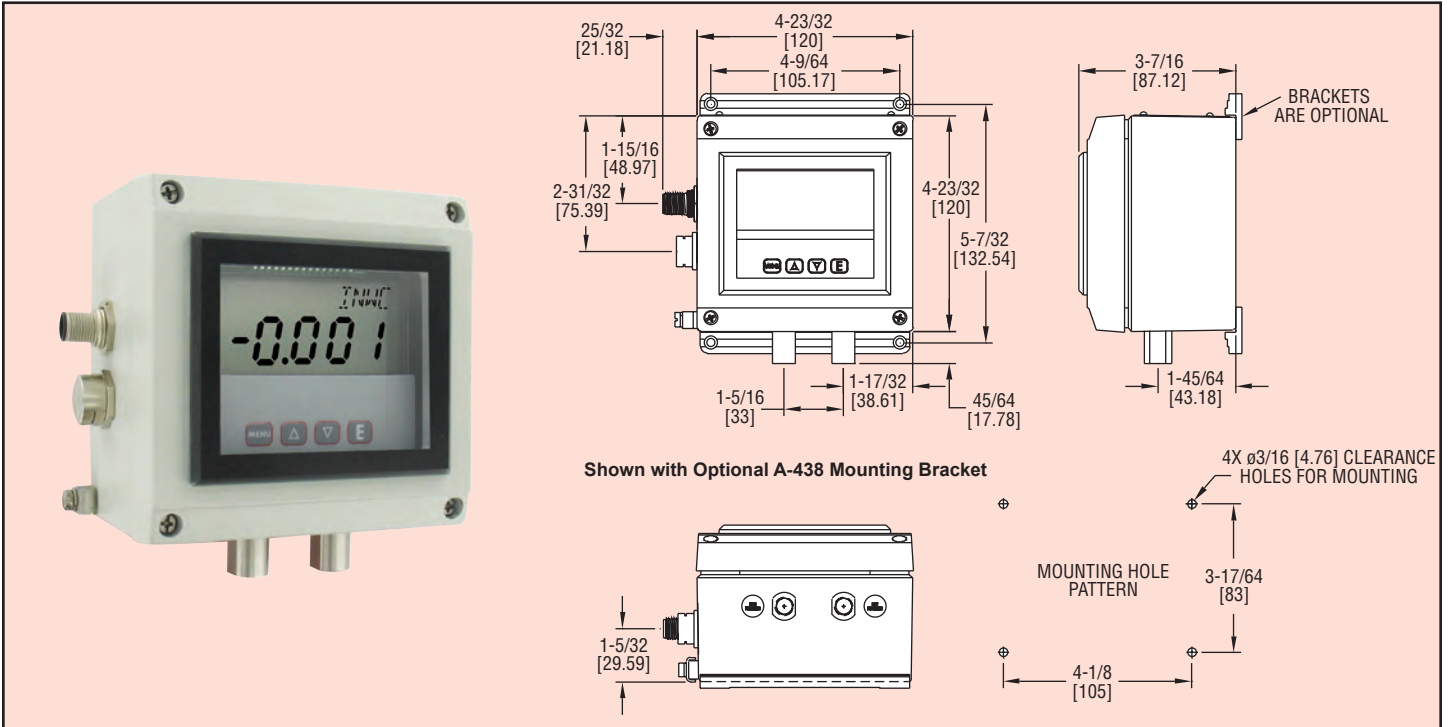
# Intrinsically Safe Differential Pressure Transmitter

For Hazardous Zone Pressure and Flow Applications



PRESSURE

Differential Pressure Transmitters



Shown with Optional A-438 Mounting Bracket

The ISDP Differential Pressure Transmitter provides a 4-20 mA process output, a robust NEMA 4X (IP66) 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.

Model	Range
ISDP-002	0 - 0.25 in w.c.
ISDP-004	0 - 1 in w.c.
ISDP-006	0 - 5 in w.c.
ISDP-007	0 - 10 in w.c.
ISDP-008	0 - 25 in w.c.
ISDP-009	0 - 50 in w.c.
ISDP-010	0 - 100 in w.c.
ISDP-012	-0.25 / +0.25 in w.c.
ISDP-014	-1.0 / +1.0 in w.c.
ISDP-015	-2.5 / +2.5 in w.c.
ISDP-016	-5.0 / +5.0 in w.c.
ISDP-017	-10 / +10 in w.c.

## ACCESSORIES

- A-231, 16' (5 m) Shielded Cable with 4 Pin Female M-12 Connection
- A-486, 4.9' (1 m) Shielded Cable with 4 Pin Female M-12 Connection
- A-487, 9.8' (3 m) Shielded Cable with 4 Pin Female M-12 Connection
- A-488, 33' (10 m) Shielded Cable with 4 Pin Female M-12 Connection
- A-295, Female 4 Pin M-12 to Cable Gland Connector
- MTL5041, Intrinsically Safe Galvanic Isolator
- MTL7706, Intrinsically Safe Zener Barrier
- A-438, Surface Mounting Brackets

## SPECIFICATIONS

- Service:** Air and non-corrosive gases.
- Wetted Materials:** Ranges 5" and greater: glass, PVC, silicon, alumina ceramic, epoxy, RTV, gold, aluminum, stainless steel and nickel; Ranges 1" 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": 5 psi; 10": 5 psi; 25": 5 psi; 50": 5 psi; 100": 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:** 4-20 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.

## OPTION

For NIST traceable calibration certificate, add suffix -NIST to model numbers. Example: ISDP-004-NIST.

See page 567 for process tubing options.