**Series ISDP**

**Intrinsically Safe Differential Pressure Transmitter**

For Hazardous Zone Pressure and Flow Applications

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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 psi. 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. 1 Groups A, B, C, D; Class II Div. I Groups E, F, G; Class III Div. I ratings.

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**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).

**Response Time:** 250 ms (damping set to 1).

**Zero & Span Adjustments:** Accessible via menus.

**Power Requirements:** 10-35 VDC.

**Output Signal:** 4-20 mA DC.

**Zero & Span Adjustments:** Accessible via menus.

**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 lbs 10 oz (1.19 kg).


**FM Intrinsically Safe Div I Div I GR:** A, B, C, D; CL1II Div I Gr: E, F, G; CL1II Div I.

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**ACCESSORIES**

<table>
<thead>
<tr>
<th>Model</th>
<th>Range</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISDP-002</td>
<td>0 - 0.25 in w.c.</td>
<td>$633.00</td>
</tr>
<tr>
<td>ISDP-004</td>
<td>0 - 1 in w.c.</td>
<td>$633.00</td>
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<tr>
<td>ISDP-006</td>
<td>0 - 5 in w.c.</td>
<td>$541.00</td>
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<tr>
<td>ISDP-007</td>
<td>0 - 10 in w.c.</td>
<td>$541.00</td>
</tr>
<tr>
<td>ISDP-008</td>
<td>0 - 25 in w.c.</td>
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</tr>
<tr>
<td>ISDP-009</td>
<td>0 - 50 in w.c.</td>
<td>$541.00</td>
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<tr>
<td>ISDP-010</td>
<td>0 - 100 in w.c.</td>
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<tr>
<td>ISDP-012</td>
<td>-0.25 / +0.25 in w.c.</td>
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<td>ISDP-014</td>
<td>-1.0 / +1.0 in w.c.</td>
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<tr>
<td>ISDP-015</td>
<td>-2.5 / +2.5 in w.c.</td>
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<tr>
<td>ISDP-016</td>
<td>-5.0 / +5.0 in w.c.</td>
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<tr>
<td>ISDP-017</td>
<td>-10.0 / +10.0 in w.c.</td>
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</tr>
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</table>

**OPTION**

For NIST traceable calibration certificate, add suffix -NIST to model numbers.

Example: ISDP-004-NIST. $135.00

Items are subject to Schedule B discounts.

Items are on-priced and are not subject to any discount.

See page 587 for process tubing options.

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**NOTE**

- Items are subject to Schedule B discounts.
- Items are net priced and are not subject to any discount.

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**For more information, visit:** www.dwyer-inst.com

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