

Description

Moore Industries' IPX Explosion-Proof, Field-Mount Current-to-Pressure Transmitter is the ideal solution when accurate I/P conversion must be reliably made in harsh field environments. Its rugged, extruded aluminum explosion-proof housing can be installed in nearly any location.

Precise Pneumatic Control— The two-wire IPX accepts a 4-20mA or 10-50mA input. It converts the input to a proportional pneumatic output signal (3-15 psig, 0.2-1 bar, 20-100kPa, etc.) for controlling valves, actuators, and other pneumatic devices.

The easy-to-install IPX can be surface-mounted or affixed either horizontally or vertically to a 2-inch pipe. Both standard and metric conduit entry ports are offered. An optional coalescing filter/regulator combines an air filter and a miniature supply line regulator (For more information on the filter/regulator, see the -FR1 option in the Ordering Specifications of this datasheet, or the FILTERS datasheet #5.60).

Moore Industries also makes I/P converters in compact DIN-style housings for control room installations, and unique, chemical resistant poly-etherimide thermoplastic housings for especially corrosive environments (For details, see the IPT datasheet #5.10 and the IPF datasheet #5.15).



Compact, rugged and highly accurate, the IPX is ideal for installation next to the pneumatic device in harsh field environments.

Features

- **Explosion-proof and Intrinsically Safe.** The IPX housing features rugged extruded aluminum construction designed to meet NEMA 4X, IP65 (water-tight, dust-tight and corrosion-resistant), NEMA 7 (explosion-proof) and Intrinsic Safety requirements.
- **Insensitive to vibration.** A high technology sensor is insensitive to shock and vibration.
- **RFI/EMI protection.** The effects of RFI/EMI are negligible at 20-500MHz frequencies.
- **Mounts in any position.** The IPX can be installed in any vertical or horizontal position without affecting performance.

Certifications (Refer to Options descriptions in Ordering Specifications)



FM Approvals
Explosion-Proof – [FMEXI]
Class I, Division 1, Groups A*, B, C, D



CSA International
Explosion-Proof – [EXI]
Class I, Division 1, Groups A, B, C, D
Class II & III, Groups E, F, G



CENELEC/ATEX 94/9/EC Directive
Type N [EXI, EXIM] – Ex N IIC T6, IP65

TUV
Intrinsically Safe – EEx ia IIC T4/T5/T6



CE Conformant – EMC Directive 89/336/EEC
EN 61326

*Group A only: Seal all conduits within 18".

IPX

Explosion-Proof, Field-Mount
Current-to-Pressure Transmitter

Specifications

<p>Performance Accuracy: Less than 0.5% of span including the combined effects of linearity, hysteresis, and repeatability (For 10-50mA input or 3-27psig output, -1% of span); linearity defined per SAMA standard PMC 20.1-1973</p> <p>Step Response: 0.3 seconds into 100ml (6 in³) at 90% of span</p>	<p>Performance (continued) Supply Pressure Deviation Effect: Maximum 0.3%/1.4psig change (0.3%/0.1Bar)</p> <p>Air Consumption: 0.1 scfm (0.18 kg/hr) dead-ended</p> <p>Air Capacity: 1.4 scfm</p> <p>RFI/EMI Effect: Negligible at 20-500MHz frequencies</p> <p>Mounting Position Effect: Negligible— unit can be mounted in any position, but should be calibrated in final orientation</p>	<p>Ambient Operating Range: -40 to +85°C (-40 to +185°F)</p> <p>Temperature Effect: ±0.1%/°C (±0.055%/°F) over above range</p> <p>Adjustments Zero: Multiturn adjustment screw mechanically provides offsets of ±3% of span</p> <p>Span: Multiturn potentiometer fully adjustable to 100% of output span</p> <p>Weight 1.8 kg (3 lb 15 oz)</p>
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Ordering Information

Unit	Input	Output	Supply Pressure	Options	Housing
IPX	<p>4-20MA into 200 ohms, nominal for Intrinsically Safe units</p> <p>4-20MA into 280 ohms, nominal for Non-Intrinsically Safe units</p> <p>See Options</p>	<p>3-15PSIG 15-3PSIG 3-16.6PSIG 3-27PSIG .2-1BAR 1-.2BAR 20-100KPA 100-20KPA .2-1KGCM2</p>	<p>20PSI 35PSI (available only with 3-27 psig output units) 1.4BAR (available only with .2-1BAR output units) 140KPA 1.4KGCM2 (available only with .2-1KGCM2 output units)</p>	<p>-FR1 Combines a coalescing filter, miniature supply line regulator, and pressure gauge that reads in both psi (0-60) and bars (0-4)</p> <p>-GA1 Output gauge offered as installed accessory</p> <p>-ISE TUV Intrinsically Safe</p> <p>-NE ATEX Type N (MII Inherent)</p> <p>-PTJ Unit comes equipped with a pneumatic test jack</p>	<p>EXI Explosion-proof (NEMA 4X and 7) housing with 1/2-inch NPT, female threaded entry port for connecting the input wiring conduit</p> <p>EXIM Explosion-proof (IP65) housing with M20 x 1.5 metric, female threaded entry port for connecting the input wiring conduit</p> <p>FMEXI EXI housing FM approved Class I, Division 1, Groups B, C, and D and nonincendive, Class I, Division 2, Groups A, B, C, and D</p> <p>NOTE: When P suffix is added to the EXI or EXIM housing designation, unit is equipped with hardware for mounting on a 2-inch pipe (e.g. EXIP and EXIMP)</p>

When ordering, specify: Unit / Input / Output / Supply Pressure / Options [Housing]

Model number example: IPX / 4-20MA / 3-15PSIG / 20PSI / -FR1 [EXIP]

IPX / 4-20MA / .2-1BAR / 1.4BAR / -GA1 [EXIMP]

Options

Below is a detailed description of the available certifications for the IPX.

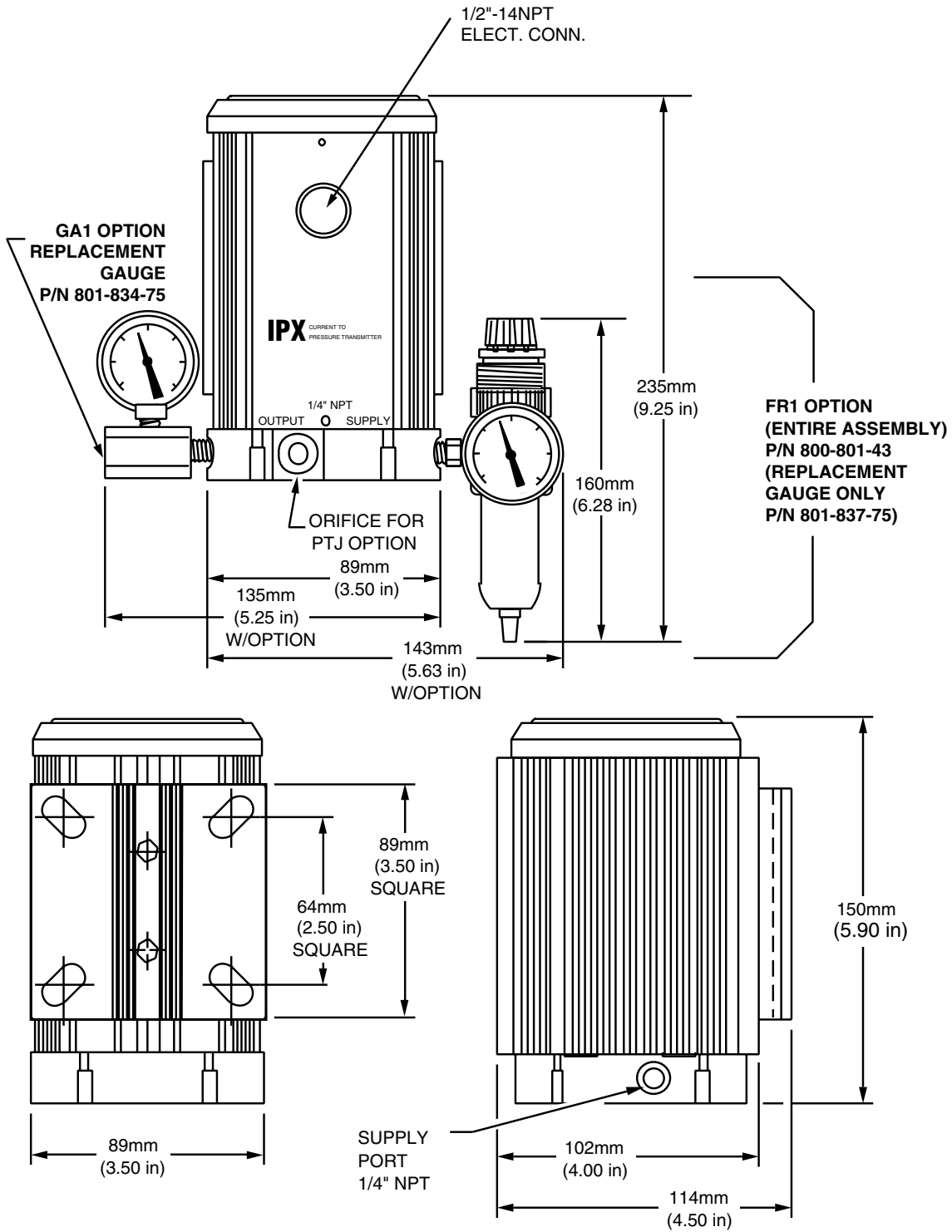
-ISE TUV approved Intrinsically Safe (EEx ia IIC T4/T5/T6 Europe).

-NE MII Inherent Type N (Ex N IIC T6)

IPX

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Figure 1. EXI and EXIM Outline Dimensions



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