

MINIATURE I/P TRANSDUCERS

ELECTRONIC AIR PRESSURE CONTROL

Up to 1% Accuracy
3-15 to 0-120 psi

±0.1% Accuracy
3-15 to 0-100 psi

High
Vibration
Immunity

IP610 Series
IP710 Series



- ✓ Compact Size for High-Density Mounting
- ✓ NEMA 4X (IP65) Enclosure
- ✓ 4 to 20 mA Loop Powered
- ✓ Conduit or DIN Connector Wiring
- ✓ Wall or Panel Mounting Standard
- ✓ Optional DIN Rail Mounting Kit
- ✓ Input/Output Ports on Front and Back
- ✓ External Zero and Span Adjustments

The IP610 and IP710 are electronic pressure regulators, converting a 4 to 20 mA signal to a proportional pneumatic output. Both units feature a compact housing, accessible ports and easy adjustments, making them ideal for space-constrained applications. They also feature high tolerance for impure air and an integral volume booster, providing high flow capacity, increasing control speed in critical applications.



IP710-X100-D with DIN electrical termination shown actual size.



IP610-X60 with conduit electrical termination shown actual size.

The IP610 is an economical unit, with precision air pressure regulation for actuators, valves, positioners and other final control elements.

The IP710 utilizes closed-loop pressure feedback circuitry to provide precise, stable pressure outputs, with immunity to vibration effects or mounting position and low air consumption, for demanding applications.

SPECIFICATIONS

Agency Approvals: FM and CSA Intrinsically Safe

IP610/IP710: Class I, II, III, Div. 1, Groups C, D, E, F and G

IP610-D/IP710-D: Class I, Div. 1, Groups C and D

Input Signal: 4 to 20 mA loop powered

Accuracy: Includes linearity, hysteresis and repeatability—see table

Supply Pressure Sensitivity: 0.1% of span per psi (±0.02% for zero-based units)

RFI/EMI Effect: 0.5% of span change in output pressure per En 61000-4-3:1998, Amendment 1, Performance Criterion A

Supply Pressure Sensitivity:

0.1% of span per psi (±0.02% for zero-based units)

Air Consumption: 1.8 SCFH typical (6.0 SCFH for zero-based units)

Temperature Limits:

IP610: -30 to 65°C (-20 to 150°F)

IP710: -40 to 70°C (-40 to 158°F)

Media: Clean, dry, oil-free, instrument air, filtered to 40 microns

Pressure Ports: ¼ FNPT

Electrical Connections: ½ FNPT conduit or DIN 43560 connector

Mounting: Direct wall, panel, or optional DIN rail

Materials

Housing: Chromate-treated aluminum with epoxy paint, NEMA 4X (IP65) rated

Elastomers: Buna-N

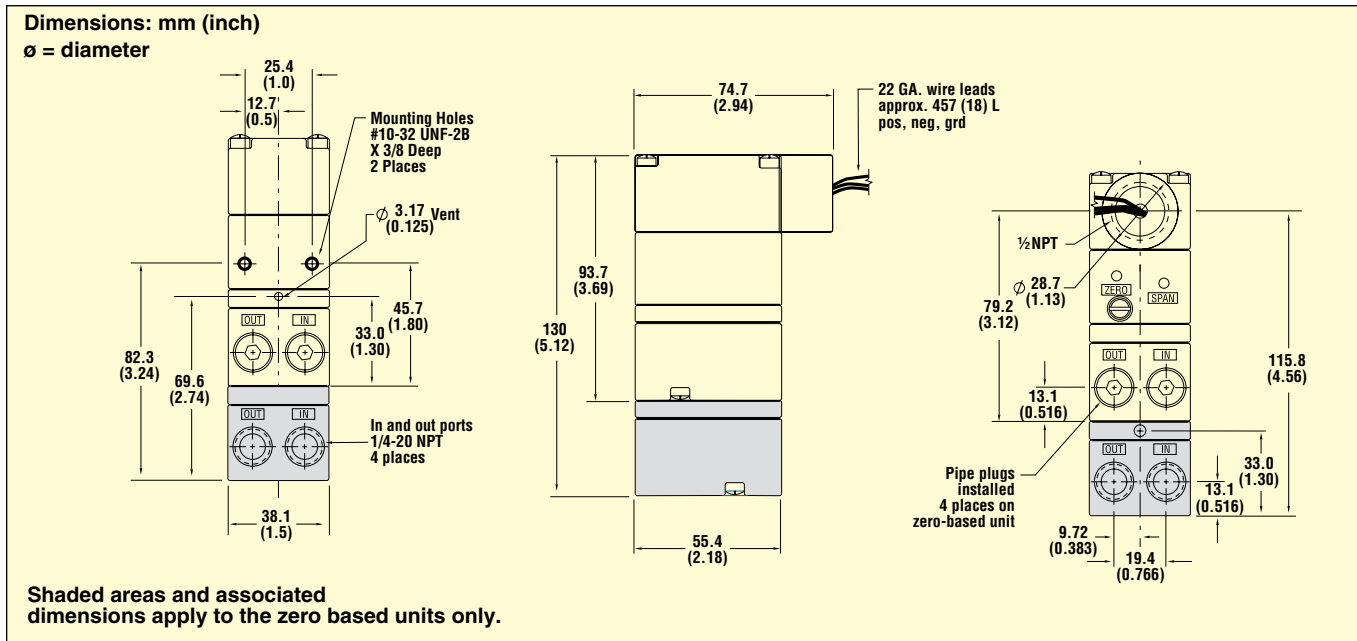
Trim: Stainless steel and zinc-plated brass

Weight:

IP610: 590 g (1.3 lb) or 770 g (1.7 lb) for zero-based units

IP710: 370 g (0.8 lb)

MINIATURE I/P TRANSDUCER



To Order						
MODEL NO.	RANGE	ACCURACY*	IMPEDANCE	AIR CONSUMPTION	SUPPLY PRESSURE (PSI)	FLOW CAPACITY
GENERAL PURPOSE I/P CONVERTERS						
IP610-X15	3 to 15 psi	±1.0% span	180 Ω	1.8 scfh @ mid-range	20 to 100	4.5 scfm @ 25 psig 12 scfm @ 100 psig
IP610-X27	3 to 27 psi		240 Ω		32 to 100	
IP610-X30	6 to 30 psi		240 Ω		35 to 100	
IP610-X60	2 to 60 psi	±2.5% span	245 Ω	6.0 scfh @ mid-range	65 to 150	12 scfm @ 100 psig
IP610-X120	3 to 120 psi		280 Ω		125 to 150	20 scfm @ 150 psig
IP610-30	0 to 30 psi		290 Ω		35 to 100	12 scfm @ 100 psig 20 scfm @ 150 psig
IP610-60	0 to 60 psi		300 Ω		65 to 150	
IP610-120	0 to 120 psi		315 Ω		125 to 150	
HIGH ACCURACY I/P CONVERTERS						
IP710-X15	3 to 15 psi	±0.10% span	10 kΩ	1.5 scfh @ mid-range	20 to 100	4.5 scfm @ 25 psig 12 scfm @ 100 psig
IP710-X17	1 to 17 psi				22 to 100	
IP710-X27	3 to 27 psi				32 to 100	
IP710-X30	6 to 30 psi			35 to 100	20 scfm @ 130 psig	
IP710-X60	2 to 60 psi			65 to 130		
IP710-X100	2 to 100 psi			4.5 scfh @ mid-range	105 to 130	

* Accuracy includes linearity, hysteresis and repeatability.

ACCESSORY

MODEL NO.	DESCRIPTION
IP610-DM	DIN rail mounting kit

Comes complete with mounting bracket and operator's manual.

To order with DIN connector, add suffix "-D" to model number, for an additional cost.

Ordering Examples: IP610-X15, loop powered I/P converter with 3 to 15 psi range and conduit connection.

IP710-X15-D, high accuracy loop powered I/P converter with 3 to 15 psi range and DIN connector.