

# MINIATURE I/P TRANSDUCERS

## ELECTRONIC AIR PRESSURE CONTROL

TRODEKS®

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

**±0.1% Accuracy**  
**3-15 to 0-100 psi**

**IP610 Series**  
**IP710 Series**



High  
Vibration  
Immunity



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



IP610-X60 with conduit  
electrical termination  
shown actual size.

- ✓ 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 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 ( $\pm 0.02\%$  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

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.

### Supply Pressure Sensitivity:

0.1% of span per psi ( $\pm 0.02\%$  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:

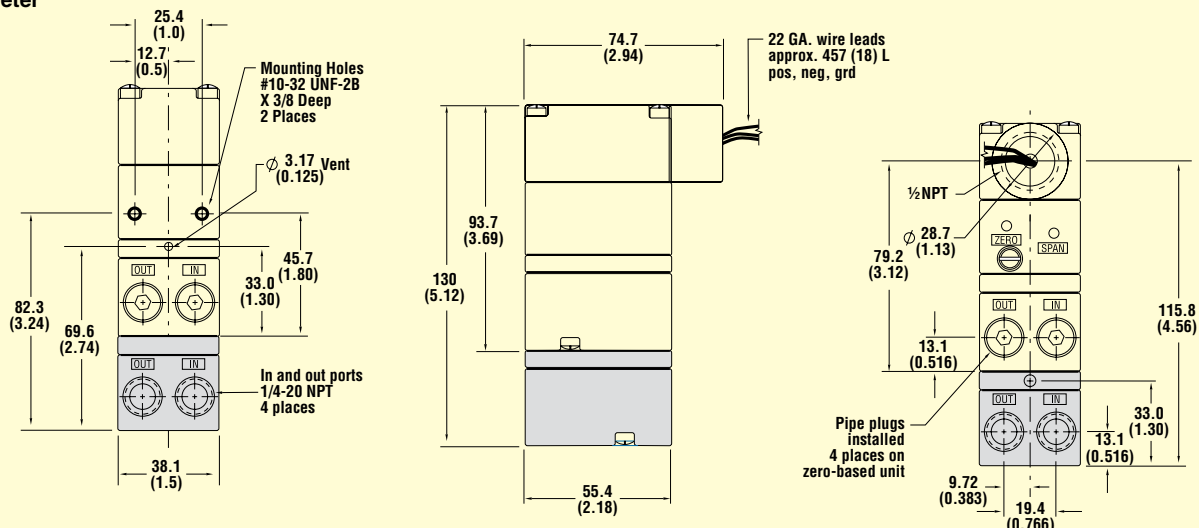
**IP610:** 590 g (1.3 lb) or 770 g (1.7 lb)  
for zero-based units

**IP710:** 370 g (0.8 lb)

# MINIATURE I/P TRANSDUCER

Dimensions: mm (inch)

ø = diameter



Shaded areas and associated dimensions apply to the zero based units only.

## To Order

MODEL NO.	RANGE	ACCURACY*	LOOP LOAD	AIR CONSUMPTION	SUPPLY PRESSURE (PSI)	FLOW CAPACITY
GENERAL PURPOSE I/P CONVERTERS						
IP610-X15	3 to 15 psi	±1.0% span	3.6V @ 20mA	1.8 scfh @ mid-range	20 to 100	4.5 scfm @ 25 psig 12 scfm @ 100 psig
IP610-X27	3 to 27 psi		4.8V @ 20mA		32 to 100	
IP610-X30	6 to 30 psi		4.8V @ 20mA		35 to 100	
IP610-X60	2 to 60 psi	±2.5% span	4.9 V @ 20mA	6.0 scfh @ mid-range	65 to 150	12 scfm @ 100 psig
IP610-X120	3 to 120 psi		5.6 V @ 20mA		125 to 150	20 scfm @ 150 psig
IP610-30	0 to 30 psi		5.8 V @ 20mA		35 to 100	12 scfm @ 100 psig 20 scfm @ 150 psig
IP610-60	0 to 60 psi		6.0 V @ 20mA		65 to 150	
IP610-120	0 to 120 psi		6.3 V @ 20mA		125 to 150	
HIGH ACCURACY I/P CONVERTERS						
IP710-X15	3 to 15 psi	±0.10% span	9.5V @ 20 mA	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			4.5 scfh @ mid-range		65 to 130
IP710-X100	2 to 100 psi					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.