



Series  
IP

# Current to Pressure Transducer

Intrinsically Safe, NEMA 4X Enclosure, Field Reversible, Low Cost



The Series IP Current to Pressure Transducer converts a current input signal to a linearly proportional pneumatic output pressure. The features include built-in volume booster, low air consumption, field reversible (provides output which is inversely proportional to input signal) and flexible zero and span adjustments. The rugged NEMA 4X enclosure allows splashdown and outdoor installation. The IP can be used for applications that require operation of valve actuators, pneumatic valve positioners, damper and louver actuators, final control elements, relays, air cylinders, web tensioners, clutches and brakes.

### MODELS

Model Number	Input Ranges	Output Range	
		psi	kPa
IP-42	4-20 mA	3-15	20-100
IP-43	4-20 mA	3-27	20-185
IP-44	4-20 mA	6-30	40-200

### SPECIFICATIONS

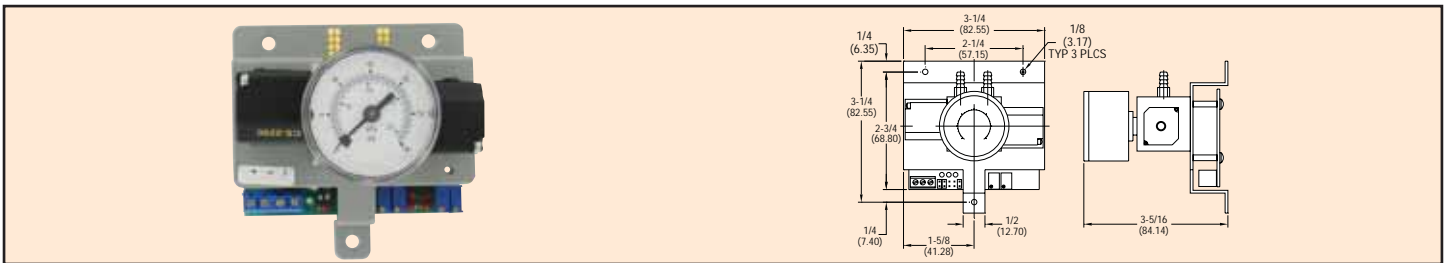
**Service:** Oil free, clean dry air filtered to 40 microns.  
**Input Signal:** 4-20 mA.  
**Input Impedance:** IP-42: 180 ohms; IP-43 and IP-44: 220 ohms.  
**Air Pressure:** Minimum: 3 psig (21 kPa) above maximum output; Maximum: 100 psig (700 kPa).  
**Linearity:**  $\pm 0.75\%$  of span.  
**Hysteresis:**  $< 1\%$  of span.  
**Repeatability:**  $< 0.5\%$  of span.  
**Supply Pressure Sensitivity:**  $\pm 0.1\%$  of span per psig ( $\pm 0.15\%$  of span per 10 kPa).  
**Power Requirements:** Loop-powered.  
**Temperature Limits:** -20 to 140°F (-30 to 60°C).  
**Pressure Connections:** 1/4" female NPT.  
**Electrical Connection:** 1/2" female NPT.  
**Air Consumption:** 0.03 SCFM (0.5 m<sup>3</sup>/h) typical.  
**Output Capacity:** 4.5 SCFM (7.6 m<sup>3</sup>/h ANR) at 25 psig (175 kPa) supply; 12 SCFM (20 m<sup>3</sup>/h) at 100 psig (700 kPa) supply.  
**Relief Capacity:** 2 SCFM (3.4 m<sup>3</sup>/h) at 5 psig (35 kPa) above 20 psig (140 kPa) setpoint.  
**Weight:** 2.1 lb (0.94 kg).  
**Agency Approvals:** CE, FM.



Series  
EPT-1

# Electro-pneumatic Transducer

Low Cost, Selectable Input, Manual Override



The Series EPT-1 incorporates a quiet low-wattage poppet valve and pressure sensor to measure and adjust the branch line pressure proportional to the input. This unit has no air consumption and is immune to mounting orientation and supply line pressure fluctuations. The EPT-1M1 and EPT-1M2 incorporate a manual override switch, and in the manual mode, the pressure can be increased or decreased with two pushbutton switches. This feature is most desirable for check out/commissioning and manual operation in case of controller failure. Universal 24 VAC/24 VDC supply voltage and field selectable 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC inputs ensure single unit compatibility with most systems. The unique steel chassis design substantially reduces the overall size of the unit and, at the same time, provides for ease of installation in a control panel directly or with a snap track. A precision gage is provided for the branch line pressure. A rugged aluminum manifold, brass barb fittings, floating poppet solenoid valve, silicon pressure sensor, and high performance electronics are some of the features which make the Series EPT-1 the most reliable electro-pneumatic transducer in the industry.

### MODELS

Model Number	Output Range psig (kPa)	Manual Override	Model Number	Output Range psig (kPa)	Manual Override
EPT-11	3-15 (20-100)	No	EPT-12	0-20 (0-138)	No
EPT-1M1	3-15 (20-100)	Yes	EPT-1M2	0-20 (0-138)	Yes

### SPECIFICATIONS

**Service:** Clean dry air or any inert gas.  
**Input Signal:** DC Current (4-20 mA) or DC Voltage (0-5/0-10).  
**Input Impedance:**  
 Current - 301 ohms.  
 Voltage - 10K ohms.  
**Air Supply:** 40 psig (276 kPa) maximum.  
**Accuracy:**  $\pm 1\%$  F.S. (includes linearity, hysteresis and repeatability).  
**Pressure Drop:** (Supply to branch) 0.1 psig (0.7 kPa).  
**Power Requirement:** 18-28 VAC/VDC.  
**Current Consumption:** 150 mA.  
**Temperature Limits:** 25 to 150°F (4 to 65°C).  
**Thermal Effect:**  $\pm 0.025\%/^{\circ}\text{F}$  (0.03%/°C).  
**Pressure Connections:** 1/4" O.D. plastic tubing.  
**Electrical Connections:** Screw terminals.  
**Wire Size:** 12 Ga max.  
**Enclosure:** 18 Ga C.R. steel chassis with baked on enamel-PMS2GR88B finish.  
**Weight:** 1.0 lb (0.45 kg).

Valves