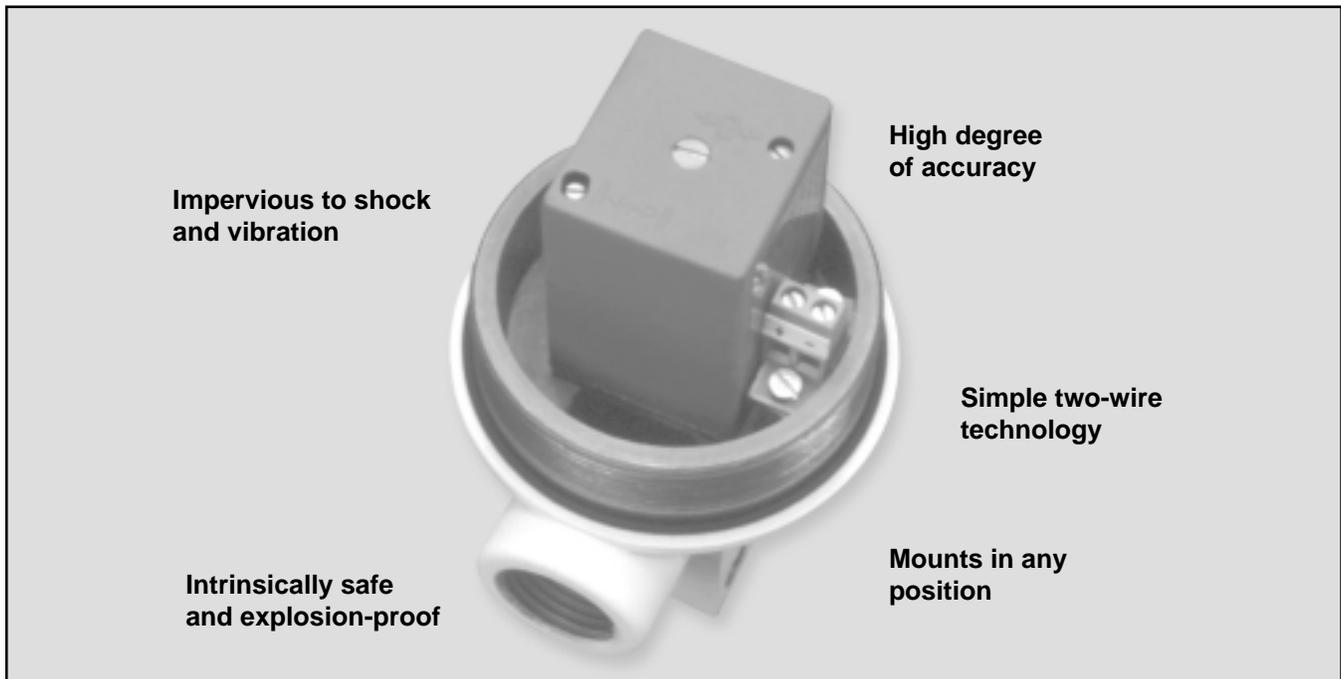




*Valtek Electro-pneumatic  
Transducers*

## Valtek Electro-pneumatic Transducer Features



**Figure 1: I/P Transducer Features and Advantages**

The Valtek® Electro-pneumatic (I/P) Transducer is used to convert a milliamp control signal into a proportional pneumatic signal for pneumatic valve operators. The I/P transducer is used when conditions require that the transducer be located remotely from a positioner equipped actuator, or it may be used directly on a diaphragm actuator. A small volume booster mounted on the bottom of the unit provides the flow capacity to actuate diaphragm operators directly as well as send the command signal over considerable distances to a positioner.

Simple in operation, the I/P transducer uses a stationary coil and a moving magnet with low mass to produce a small-size unit, that may be mounted in any position. It has a fast response time and good repeatability, with a high degree of reliability. The Valtek I/P transducer is intrinsically safe and explosion proof. Its calibration system is designed for easy field adjustment.

When conditions require a valve mounted I/P transducer, along with a positioner, the Valtek Beta positioner with I/P module is recommended.

### Features and Advantages

**Shock and vibration resistant** A low-mass flapper magnet controlled by a powerful, stationary magnetic coil makes the converter resistant to shock, vibration, radio frequency interference (RFI) and electro-magnetic interference (EMI).

**Intrinsically safe/explosion-proof** The I/P transducer is Factory Mutual approved and intrinsically safe for Class I, II, III, Division I, Groups C, D, E, F and G, when installed with the appropriate energy limiting safety barriers. The unit is also explosion-proof for Class I, Division I, Groups B, C and D; dust-ignitionproof for Class II, Division I, Groups E, F and G; and suitable for Class III, Division 1, hazardous locations, indoors.

**Fast response time** A signal change of 10 to 90 percent is converted within 0.32 seconds with a line air volume equivalent to 250 feet of 1/4-inch tubing (6.4 cubic inches).

**Easy mounting** Field mounting is easy with the metal housing and an optional 2-inch pipe mounting bracket.

**Rugged housing** Explosion and weather-proof protection is insured with a cast aluminum housing and Buna-N O-ring seal. All external surfaces have baked-on enamel paint for additional protection from the environment.

**Low air consumption** The Valtek I/P transducer uses only 0.08 scfm.

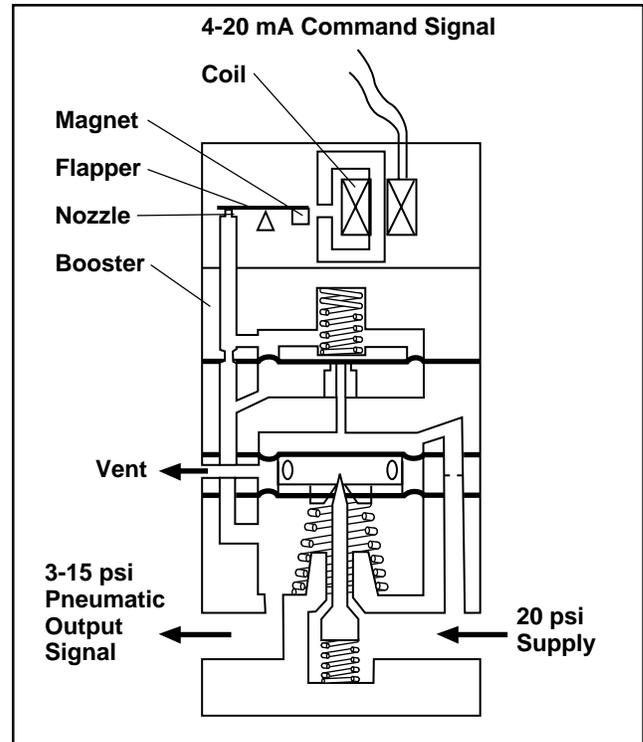
**Small size and weight** Miniaturization in the converter system means the I/P transducer measures 3.25 x 3.00 x 5.12 (inches) and weighs only 1.34 pounds.

# Valtek Electro-pneumatic Transducer

## Specifications / Ordering

**Table I: Specifications**

Input range	4-20 mA
Input resistance	Approximately 200 ohms
Capacitance	Negligible
Output range	3-15 psi
Output characteristic	Linear, direct or reverse
Air capacity	1.6 scfm
Air supply (maximum)	20 psi, $\pm 1.5$ psi (oil, water and dust-free)
Steady state air consumption	0.08 scfm
Linearity	$\leq 0.5\%$
Hysteresis	$\leq 0.3\%$
Response threshold	$\leq 0.1\%$
Temperature influence	$\leq 0.05\% \text{ } ^\circ \text{F}$
Air supply influence	$\leq 0.3\%/1.5$ psi
Position influence	$\leq 0.5\%$
Vibration influence	$\leq 0.5\%$ for an acceleration $\leq 10$ G's and a frequency $\leq 80$ Hz
Influence of interfering radiation	Not measurable
Response time	10-90% or 90-10% = 0.3 seconds with a volume of 6.05 cubic inches 10-90% = 1.5 seconds with a volume of 60.5 cubic inches 90-10% = 2.5 seconds with a volume of 60.5 cubic inches
Ambient temperature limits	-20° F to +180° F
Connections – Air	1/8-inch NPT
– Electrical	1/2-inch NPT
Weight (pounds)	1.34


**Figure 2: Wiring/Piping Schematic**

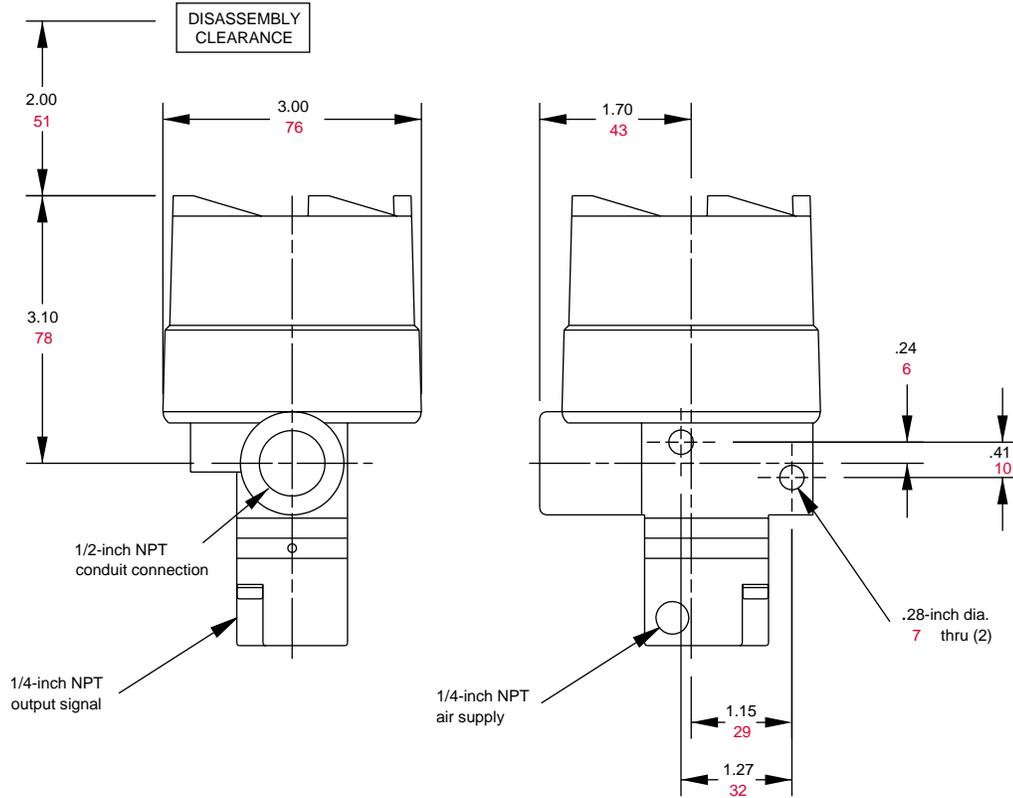
### Ordering Information

When ordering an I/P Transducer, please specify the type of mounting required (2-inch pipe, valve).


**Figure 3: Transducer on 2-inch Pipe**

# Valtek Electro-pneumatic Transducer

## Dimensions



**Figure 4: Dimensions (inches / mm)**

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