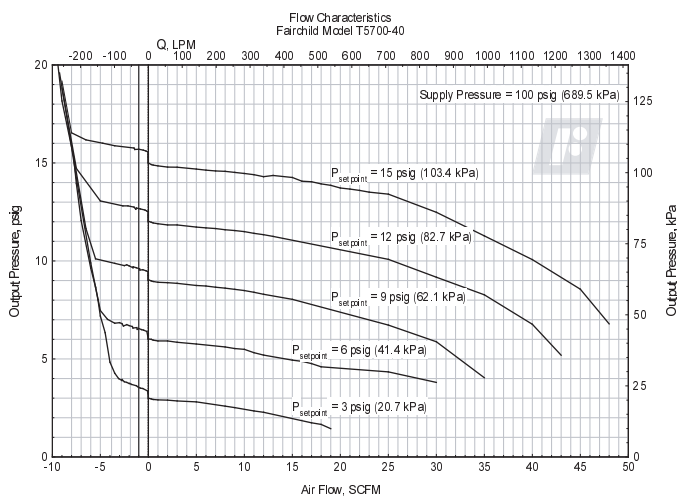
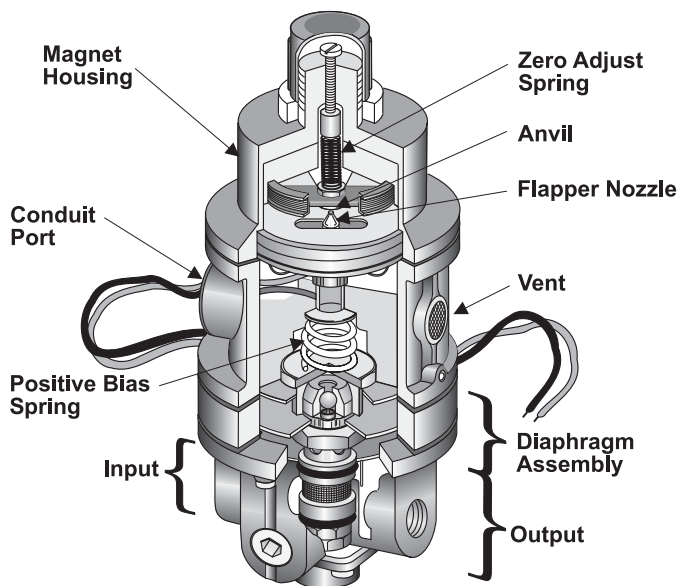


# Model T5700

## Electro-pneumatic I/P, E/P Transducer



### Cross Section

Model T5700 Detail Drawing

### General Information

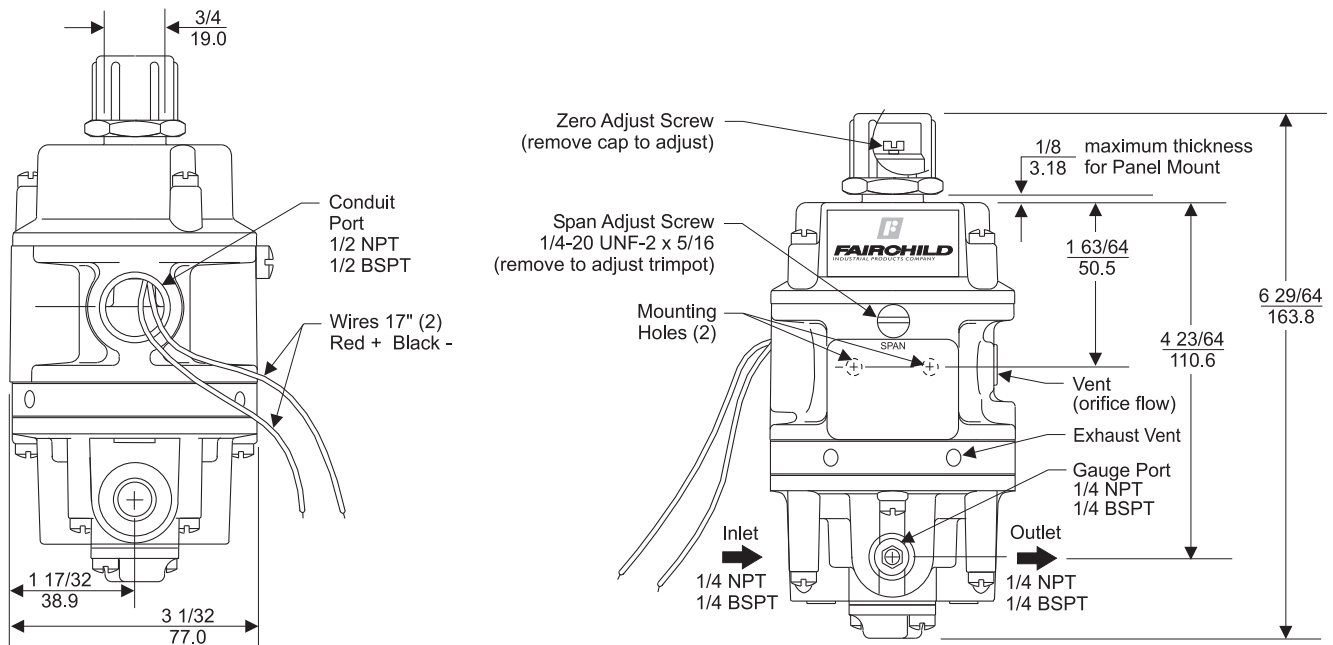
- Low Droop under flow conditions allows improved control of downstream pressure.
- Immunity to Supply Pressure Change permits use of normal plant air.
- Minimal Air Use in dead end service (.05 SCFM) reduces air consumption.
- High Forward and Exhaust Capacity permits increased process speed.
- Transducer can be configured to deliver an output which is directly or inversely proportional to the input.
- Split Range Operation permits two or more functions to be controlled from a common signal source (except 1-5 VDC unit).
- Built in Supply Pressure Regulator eliminates need for a separate regulator.
- Wall or Panel Mounting allows convenient installation.

### Operating Principles

The Model T5700 is an electro-pneumatic device that converts a current signal to a linear pneumatic output. This device uses a force balance system in which a built-in supply regulator also functions as a pneumatic amplifier. Together the flapper and the nozzle work to control the pressure in the intermediate housing. This pressure acts on a diaphragm assembly which in turns controls the output pressure.

For more information, see cross sectional diagram.

## Outline Dimensions

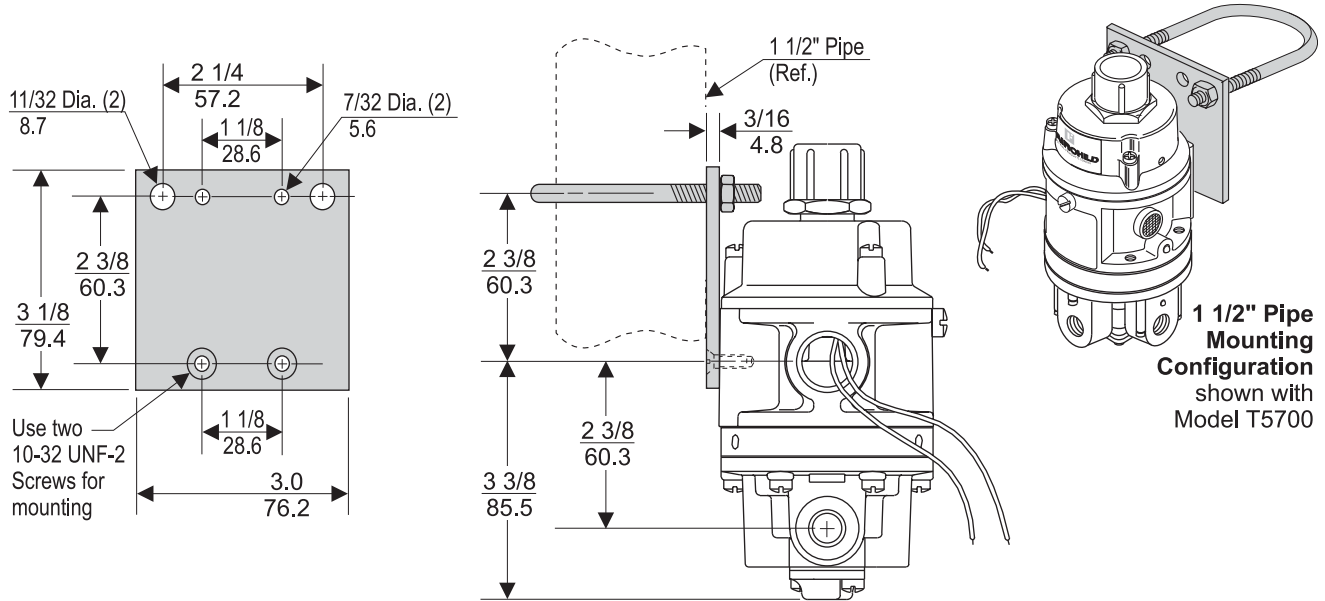


## Functional Specifications

<b>Output Range</b>	3-15 psig, [0.2-1.0 BAR], (20-100kPa)	
<b>Supply Pressure</b>	18-150 psig, [1.2-10.0 BAR], (120-1000kPa)	
<b>Flow Capacity (SCFM)</b>	17 (28.9 m <sup>3</sup> /HR) for 20 psig, [1.4 BAR], (140kPa)  47 (79.9 m <sup>3</sup> /HR) for 120 psig, [8.0 BAR], (800kPa)	
<b>Exhaust Capacity</b>	over 9 (15.3m <sup>3</sup> /HR) for downstream pressure 5 psig, [.035 BAR], (.35kPa) above set point.	
<b>Maximum Air Consumption</b>	0.05 (.08m <sup>3</sup> /HR) dead ended with 20-120 psig, [1.5-8.0 BAR], (150-800kPa) supply.	
<b>Input Impedance</b>	<b>Input Range</b>	<b>OHMS</b>
	4-20 mA	62
	10-50 mA	26
	1-5 VDC	510
	1-9 VDC	1020

## Mounting Kit

EA-15396 (Included with Unit)



### Temperature Range

-40°F to +150°F (-40°C to +65°C)

### Temperature Effecient

<1% of span/50°F (28°C) change

## Performance Specifications

### Terminal Base Linearity

+1.0% Full Scale

### Independant Linearity

+0.5% Full Scale

### Supply Pressure Effect

+0.3% Full Scale for +50 psig, [3.5 BAR], (350kPa) change

### Hysteresis and Repeatability

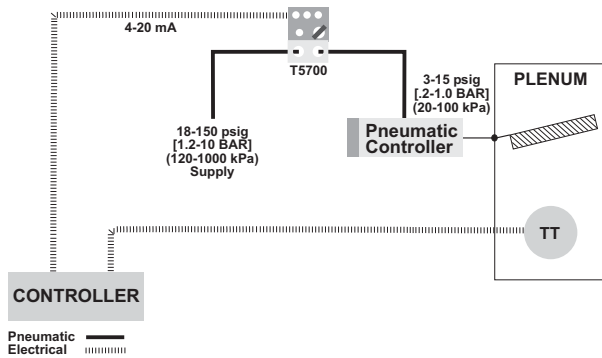
Within 0.1% Full Scale

### Materials of Construction

Housing . . . . . Aluminum  
 Orifice . . . . . Sapphire  
 Diaphragm . . . . . Buna N Dacron Fabric

## Typical Application

The Model T5700 Electro-pneumatic I/P Transducer converts an electrical current input signal from a controller to a pneumatic output signal to the position of a damper. The controller compares the signal from the temperature sensor (TT) to the controller setpoint and produces the electro current signal for the Model T5700 transducer.



## Installation

For installation instructions, see the *Fairchild Model T5700 Electro-pneumatic I/P, E/P Transducer Installation, Operation and Maintenance Instructions, IS-500T5700*.

## Catalog Information

Catalog Number	T5700-			
<b>Input<sup>1</sup></b>				
4-20 mA or 10-50 mA		4		
1-5 VDC or 1-9 VDC		9		
<b>Output</b>				
3-15 psig			0	
[0.2-1.0 BAR]			1	
(20-100kPa)			2	
<b>Options</b>				
BSPT Thread				U

<sup>1</sup>Units are factory calibrated for 4-20 mA or 1-9 VDC input, but can be field calibrated for other inputs.



ISO 9001:2000  
FM NO. 25571

