

Model T5700 High Flow Electro-Pneumatic I/P, E/P Transducer



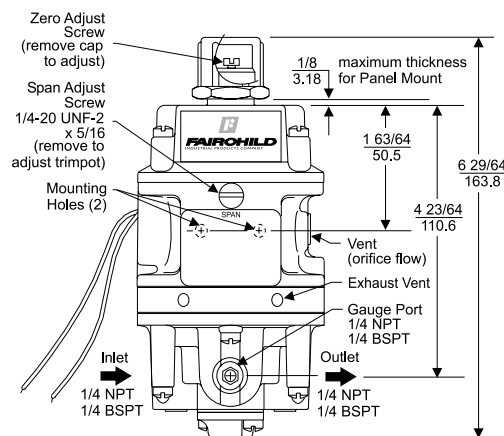
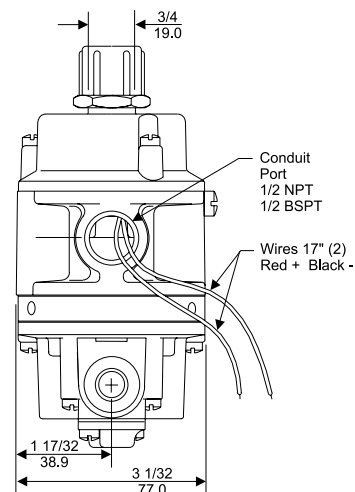
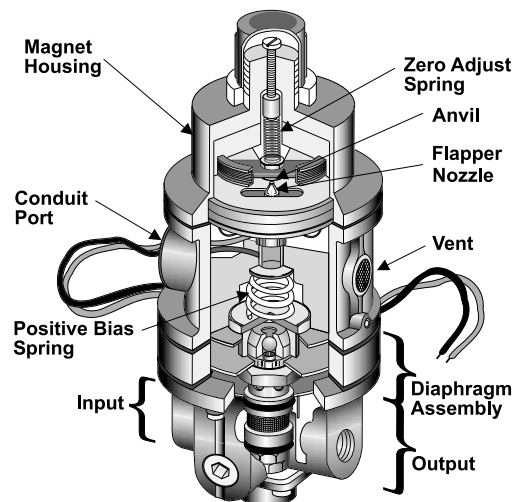
Model T5700

Features

- 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.

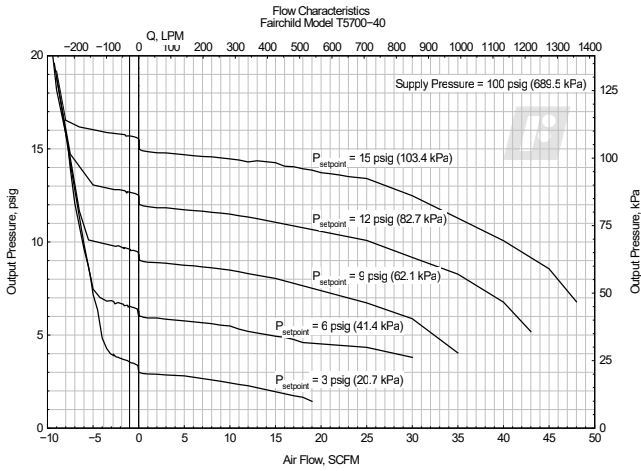
Operating Principles

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 turn controls the output pressure.

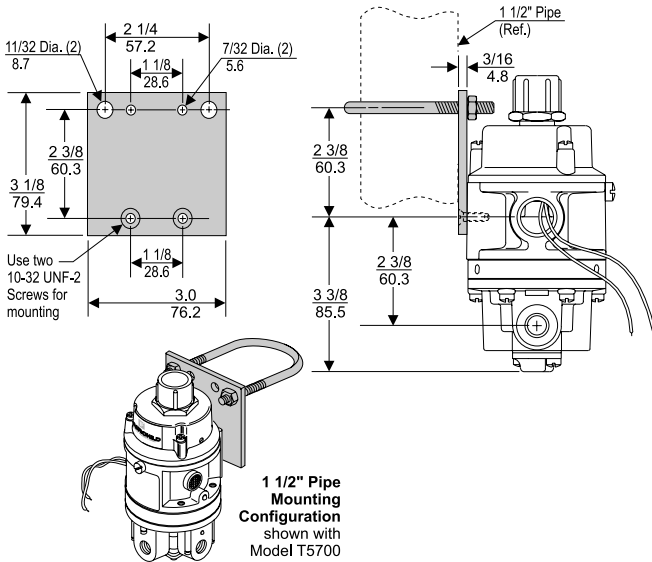


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Technical Information



Mounting Kits



Mounting Bracket: 15396

Model T5700 Transducer Kits & Accessories

Mounting Bracket Kits15396 (included with unit)

Installation

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

Catalog Information

Catalog Number	T5700-	<input type="text"/>	<input type="text"/>	<input type="text"/>
Input¹	4-20 mA or 10-50 mA	<input type="text" value="4"/>	<input type="text"/>	<input type="text"/>
	1-5 VDC or 1-9 VDC	<input type="text" value="9"/>	<input type="text"/>	<input type="text"/>
Output	3-15 psig	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/>
	[0.2-1.0 BAR]	<input type="text"/>	<input type="text" value="1"/>	<input type="text"/>
	(20-100 kPa)	<input type="text"/>	<input type="text" value="2"/>	<input type="text"/>
Options	BSPT Thread	<input type="text"/>	<input type="text"/>	<input type="text" value="U"/>

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

Specifications

Output Range

3-15 psig, [0.2-1.0 BAR], (20-100 kPa)

Supply Pressure

18-150 psig, [1.2-10.0 BAR], (120-1000 kPa)

Flow Capacity (SCFM)

17 (28.9 m³/HR) for 20 psig, [1.4 BAR], (140 kPa)

47 (79.9 m³/HR) for 120 psig, [8.0 BAR], (800 kPa)

Exhaust Capacity (SCFM)

over 9 (15.3 m³/HR) for downstream pressure 5 psig, [.035 BAR], (.35 kPa) above setpoint

Maximum Air Consumption

0.05 (.08 m³/HR) with 20-120 psig, [1.5-8.0 BAR], (150-800 kPa) supply

Independent Linearity

+0.5% Full Scale

Supply Pressure Effect

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

Terminal Base Linearity

+1.0% Full Scale

Hysteresis & Repeatability

Within 0.1% Full Scale

Input Impedance	Input Range	OHMS
	4-20 mA	62
	10-50 mA	26
	1-5 VDC	510
	1-9 VDC	1020

Temperature Range

-40°F to +150°F, (-40°C to +65°C)

Materials of Construction

HousingAluminum

OrificeSapphire

Diaphragm.....Buna N Dacron Fabric