

B

**Model
T5200**



Features

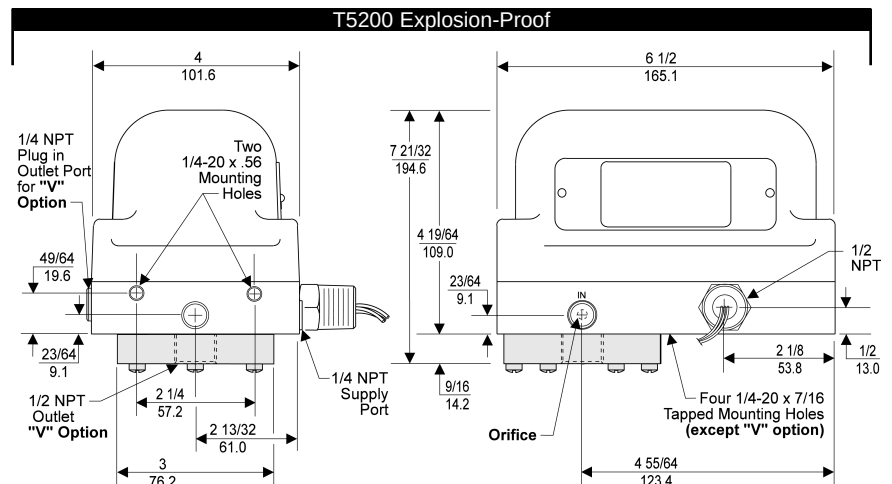
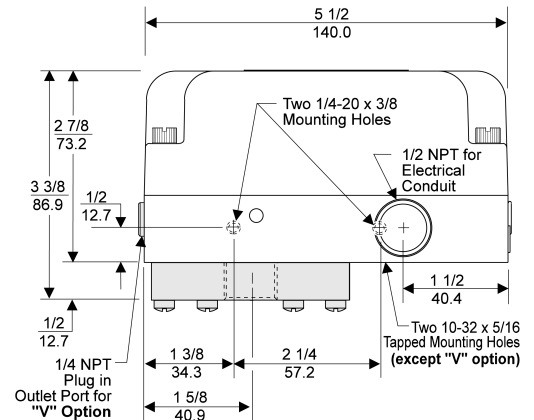
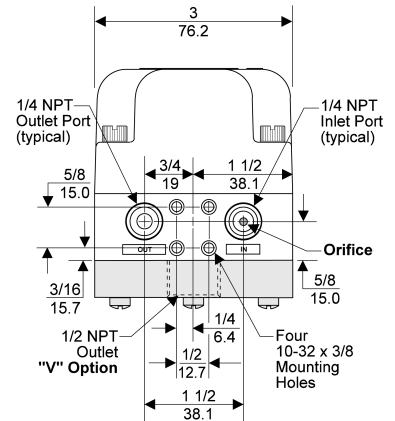
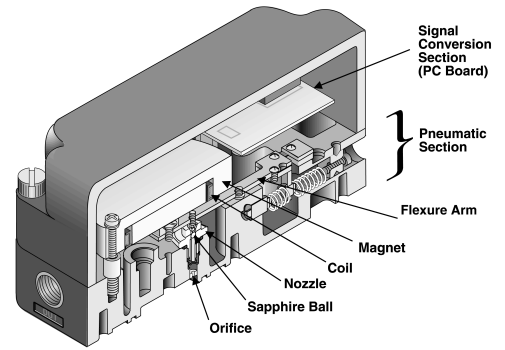
- Fast Response to Input Signal changes results in faster loop control and savings in process materials.
- Minimal Air Consumption allows use in systems where operating gas is expensive.
- Five Input Signal Ranges meet most process and machine requirements.
- Temperature Compensation provides stable operation during temperature changes.
- Compact Size permits use in space restricted areas.
- Vibration Resistance maintains set points under adverse vibration conditions.
- Various Mounting Configurations allow installation flexibility for most applications.
- NEMA 3R Enclosure available for outdoor and indoor installations.

Operating Principles

The T5200 Transducer is an electro-pneumatic device that is controlled by a 4-20 mA current in a control loop. This device is made up of two sections, the Signal Conversion Section and the Pneumatic Section.

The Signal Conversion Section (PC Board) accepts a 4-20 mA current from the control loop. This signal current is applied to a coil which creates a magnetic force that moves a Flexure Arm.

The Pneumatic Section operates as a force balance system. A Sapphire Ball floats inside a Nozzle and controls the output pressure by exhausting air supplied through an Orifice. This Sapphire Ball acts as a piston exerting a force which is balanced against the force of the Flexure Arm.



Hazardous Area Specifications

	Explosion-Proof	Intrinsically Safe
Factory Mutual (FM) Approvals	TFXPD5200 Class I, Division 1, Groups B, C and D; Class II, Division 1, Groups E, F, and G; Maximum Ambient 65° C.	TFI5200 Class I, Division 1, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class III, Division 1, Fibers; NEMA 3R Enclosure. <i>(Upright Position ONLY)</i>
	TFXPDI5200 Class I, Division 1, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class III, Division 1, Fibers; NEMA 3R Enclosure. <i>(Upright Position ONLY)</i>	
	TFN5200 NEMA 4X Enclosure.	
Canadian Standards Association (CSA) Approvals	<i>Approvals are valid when connected through a Shunt Zener Diode Safety Barrier meeting the following parametric requirements:</i> Rated: 28V Maximum 300 Ohm Minimum	TCI5200 Class I, Division 1, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Type 3 Enclosure; Rated 1-5 mA, 4-20 mA, 10-50 mA, 1-5 VDC, 1-9 VDC; Temperature Code T4A.

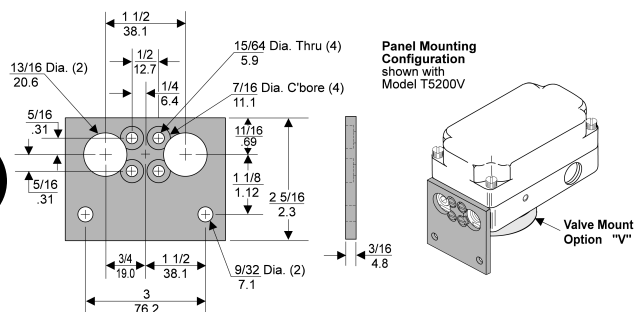


Model T5200 Electro-Pneumatic I/P, E/P Transducer

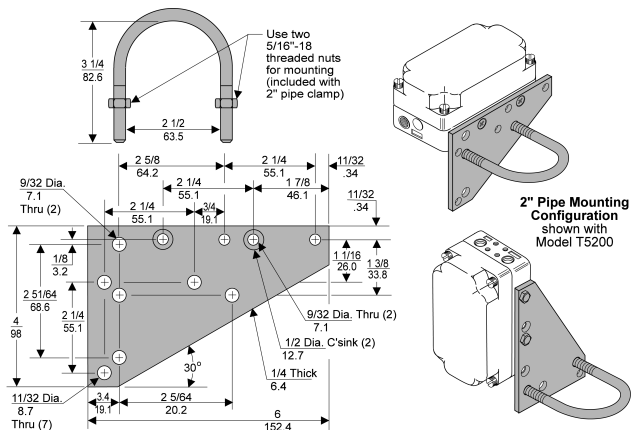
Mounting Kits

B

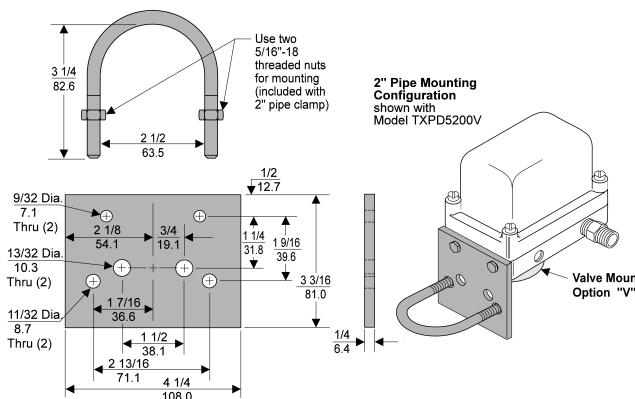
Model T5200



Mounting Bracket: 15268



Mounting Bracket: 14596



Mounting Bracket: 14140

Model T5200 Transducer Kits & Accessories

Mounting Bracket Kits.....15268 (sold separately)
14596 (sold separately)
14140 (sold separately)

Installation

For Installation Instructions, refer to the *Fairchild T5200 Series Electro-Pneumatic Transducer Installation, Operation and Maintenance*, IS-500T5200.

Catalog Information

Catalog Number T **5200**

Underwriting Group
Canadian Standard
Factory Mutual
C F

Approval Class
Explosion-Proof¹
NEMA 4X/IP65¹
None (leave blank)
Intrinsically Safe²
None (leave blank)
XPD N I

Input
1-5 mA
4-20 mA
10-50 mA³
1-5 VDC
1-9 VDC
1 4 5 9

Output
psig
[BAR]
(kPa)
0 1 2

Options
Valve Mount
V

¹ Factory Mutual Approval Only.
² Intrinsically Safe Units cannot be set for Reverse Acting Mode in field.
³ Units shipped calibrated 4-20 mA; 10-50 mA units must be calibrated in field.

Specifications

Supply Pressure	20 + 2 psig, [1.5 + 0.15 BAR], (150 + 15 kPa)
Output Capacity (SCFM)	0.15 (0.26 m ³ /HR) Maximum
Air Consumption (SCFM)	0.16 (0.27 m ³ /HR) Maximum
Output Range	3-15 psig, [0.2-1.0 BAR], (20-100 kPa)
Supply Pressure Effect	+ 0.3% of Span for a 1 psig, [0.1 BAR], (10 kPa) supply change
Impedance / Input Signal	Range OHMS
	1-5 mA 2000
	4-20 mA 120 ¹
	10-50 mA 50 ¹
	1-9 VDC 2550
	1-5 VDC 375

Shock & Vibration Effect
Negligible up to 2 g's between 5 Hz and 200 Hz

Terminal Based Linearity
+ 0.50% Full Scale

Independent Linearity
+ 0.25% Full Scale

Temperature Coefficient
Less than 1% of Span / 50° F (10° C)

Hysteresis
Within 0.1% Full Scale

Frequency Response
-3 db @ 20 Hz (unloaded)

Ambient Temperature
-40° F to +150° F, (-40° C to +65.5° C)

Materials of Construction
Body and Housing Aluminum
Ball and Orifice Sapphire, Brass
Nozzle Stainless Steel

¹ Add 332 OHMS for CSA Units.