# The Widest Range of Products for Diverse Market Applications

or 50 years, Fairchild Industrial Products Company has maintained an excellent reputation as a manufacturer of precision, high quality, pneumatic, and electro-pneumatic controls. Our line of industrial control products offers one of the largest varieties of precision pneumatic and electro-pneumatic control devices available for process, machine tool, robotic and OEM applications.

Our developing technology in four main product groups pneumatic pressure regulators, volume boosters, relays and electro-pneumatic transducers has been the basis for our growth and leadership.

Fairchild Industrial Products Company is ISO 9001 approved. We are authorized to display the CE mark on our electro-pneumatic products. Many of our electro-pneumatic products are also approved for intrinsically safe, explosion-proof, and NEMA 4X (IP65) ratings by FM, CSA, ATEX and SAA.

Our worldwide network of stocking distributors can assist you with application support at the local level. At the factory, our applications engineering staff can solve your problems with new or existing applications. We can work with your plant and design engineers to develop a custom product to suit a specific application.

At Fairchild Industrial Products Company, we have built our reputation on providing quality products, excellent customer service, quick delivery, and immediate response to customer emergencies.

# Fairchild Products By Industry

#### Oil & Gas



Chemical



Pharmaceutical



Brake Control, Compressor Control, Compressor Starting System, Choke Control, Damper Control, Drilling, Pneumatic Mud Monitoring System, Fuel Supply Louver Control, Process Control and Valve Control.

Constant Voltage Control, Controlled Air Pressure, Corrosive Material, Heat Exchanger Control, Nitrogen Tank Blanketing, Pneumatic Pressure Switch, Pressure Valve Control, Process Control, and Waste Water Flow Control.

Constant Voltage Control, Corrosive Material, Distillation Process, Mixing Speed Control, Multi-pen Recorder Ink, Nitrogen Tank Blanketing, Pneumatic Pump Control, Tank Blanketing, Tank Level Gage, Valve Control, and Ventilation (Damper).

l/p <sub>and E/p</sub> T <sub>ransducers</sub>	Pressure Regulators	P <sub>neumatic</sub> R <sub>elays</sub>	Volume Boosters
76000, 77800, TX17800	10, 10BP, 63, 65, 100, 2400 Series	14, 24, 90, 91	20, 200, 200XLR, 4500A
T5200, T6000, TX17800, T7900, T7950	10BP, 63, 65, 81	24	20, 200, 4500A
T5700, T6000, T7800, TX17800	50, 65, 66, 66BP, 70B, 81, 1600A	24	20, 200, 4500A

Industrial Automation



Medical/Biotech

Food & Beverage

Power Generation

Clean Room Air Pressure/ Temperature Control, Fuel Valve Control, Inflation and Test Pressure, Heat-treating Furnace, Injection Mold Control, Pick and Place Robot, Robot Spray Gun, Test Equipment - Manual and Automated, and Weld Pressure Cylinder Control.

Biotherapeutic Delivery Devices, Damper Control, Heart/Shunt Devices, Fluid Testing, Hyperbaric Chambers, Infant Respirators, Microfluidics, Protein Crystallization, Gas Management, Tank Blanketing, Valve Control, and Ventilatory Systems.

Constant Voltage Control, Controlled Air Pressure, Corrosive Material, Distillation Process, Fill Systems, Heat Exchanger Control, Hopper Blanket, Product Dispensing Control, and Valve Control - Flow and Temperature.

Absorption Distillation, Air Purification/ Treatment Analyzer Sampling Systems, Damper Control, Condition Monitoring, Emission Control, Feed Pump Control, Pneumatic Pump Control, Purification Process Control, Steam Process Control, Tank Level Gage and Valve Control.

Brakes - Wind/Unwinds Stands, Damper Control, Edge Guiding, Fiber Stock Forming, Ink Jet Marking Systems, Machine Control, Paper Machinery Felt Guide, Wet Side Sheet Forming, Tension Control, Valve Control, Waste Water Flow Control and Web Tension Control.

Automotive

Pulp & Paper



Concentric Testing, Data Acquisition, Inspection/Gaging, High Pressure Steam Temperature Control, Paint and Finishing Systems, Robotics, Tire Molding, Uniformity Testing, Web Tension and Welding.

#### Textile Manufacturing



Brakes - Wind/Rewind, Dye Application, Hopper Blanket, Machine Control, Pneumatic Pump Control, Pressure Control, Tank Refill, Waste Water Flow Control, Web Guide and Web Tension Roll & Stand Brake.

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l'p and E/p Transduce	Pressure Regulators	P <sub>neumatic</sub> Rel <sub>ays</sub>	Volume Boosters	
T5220, T6000	10, 16, 30, 65A, 70, 81, 1000, 1600A, 4000A	/	4500A	
T5700, T6000, T7800, TX17800	50, 65, 2400 Series	15	20, 4500A	
75220, 75700, 76000, 77800, 7X17800, 77900, 77950, 78000	10, 30, 65A, 200, 2000, 4000A	14, 24	20	
17800, TXI7800, 18000	63, 65A, 2400 Series		20, 200, 4500A	
T5220, T5221, T6000, T7800, TXI7800, T7900, T7950, T8000	10, 16, 30, 65A, 70, 80, 81, 85, 100, 1000, 2800, 4000A	14, 15, 21, 22, 25, 90, 91, 1500, 2500	20, 200, 2000, 4500A	
T5200, T5220 T6000, T7800, T7900, T7950	10, 16, 30, 65A, 70, 80, 81, 1000, 1600A, 4000A	90, 91	20, 200, 4500A	
T5700, T6000, T7800, TX17800	10, 30, 64A	14, 15, 21	20, 4500A	

# **Electro-Pneumatic Transducers**

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	<b>T5700</b> High Flow Voice Coil I/P, E/P	T6000 Voice Coil I/P, E/P	T6100 Lock in Last Position I/P	<b>T7800</b> Piezo Ceramic I/P, E/P	TXI7800 TXI7850 Explosion-Proof I/P, E/P	<b>T9000</b> High Flow Digital I/P, E/P
Max Flow Capacity: SCFM (m³/HR)	47 (79.9) Supply =120 psig	9 (15.3) Supply =120 psig	5.0 (8.5) Supply = 21 psig	9 (15.3) Supply =120 psig	9 (15.3) Supply =120 psig	2 - 500 (3.4 - 858)
Output Pressure: PSIG (kPa)	3–15 (20–100)	3–15, 0–120 (20–100), (0–800) 6 ranges	3-15 (20-100)	3–15, 0–120 (20–100), (0–800) 6 ranges	3–15, 3-27, 6-30 (20–100), (20-180), (40-200)	0-30, 0-75, 0–150 (0–200), (0-500),
Exhaust Capacity: SCFM (m <sup>3</sup> /HR) Downstream pressure 5 psig above 9 psig setpoint	< 9 (15.3)	2 (3.4)	2 (3.4)	2 (3.4)	2 (3.4)	2 - 100 (3.4 - 170)
Max Air Consumption: SCFH (m³/HR)	3 (.08)	5.0 to 17.0 (0.14) to (0.48) Varies with model	5.0 (0.14)	5.5 to 15.0 (0.16) to (0.42) Varies with model	13.5 (0.38)	0 @ steady state
Accuracy: % FS	±0.5 Independent Linearity	0.5 to 1.0 Independent Linearity Varies with model	0.5	±0.15 (typical)	±0.15	±0.5
Repeatability: % FS	<0.1	0.25 to <1.0	.025	<0.1	<0.1	<0.1
Supply Pressure: PSIG (kPa)	18–150 (120–1000)	20–150 (150–1000)	20-40 (150-280)	20–150 (150–1000)	20–120 (150–800) Maximum	200 (1400) Maximum
Supply Voltage: DC	Signal Powered	Signal Powered	Signal Powered	Current Input Signal Powered Voltage Input 7.2-30 VDC	Signal Powered	24 VDC
Input Signal	4–20 mA, 10–50 mA 1–5 VDC, 1–9 VDC	4-20 mA, 10-50 mA 0-5 VDC, 0-10 VDC, 1-5 VDC, 1-9 VDC	4-20 mA	4-20 mA DC, 0-10 VDC, 1-9 VDC 1-5, 0-5 VDC Limited Availability	4-20 mA	4-20 mA, 0-10 VDC
Pipe Size	1/4"	1/4"	1/4"	1/4"	1/4"	1/4, 3/8, 1/2"
Underwriting Group Approvals: *	CE	F, C, E, CE	F, CE	F, C, E, CE	A, F, C, E, CE	CE
Dimensions (Aprx.) Inches (mm)	Dia. 3 H 6 1/2 (Dia. 76 H 165)	1 1/2 x 3 1/8 x 3 3/4 (38 x 79 x 95)	2 1/2 x 2 1/2 x 6 1/2 (64 x 64 x 165)	1 1/2 x 3 1/8 x 3 3/4 (38 x 79 x 95)	3 11/16 x 3 13/16 x 4 5/8 (94 x 97 x 117.5)	3 x 3 1/8 x 7 3/4 (76 x 79 x 197)
	A = S F = F CE = C	AA, Australia M, Factory Mutual ONFORMITÉ EURC	PEÉNNE	E = ATE C = CSA * T7800 Series	X, IECx* ., Canadian Standard:	S

# **Electro-Pneumatic Transducers**



#### **Motorized Regulator**

One of the earliest types of electropneumatic control is the motor to pressure regulator. This technology uses a motor to turn the hand wheel of a pressure regulator. Regulated output pressure is adjusted using AC, DC, or DC pulse control signals. These units are sturdy, reliable, and lock on the last setting when the power is interrupted.



- 24X Series
- 24C Series

#### Electro-pneumatic Transducers

The electro-pneumatic transducer was developed as a smaller, lighter, and more cost effective alternative to the Motorized Regulator. An electro-pneumatic I/P, E/P, D/P, and P/I transducer receives an analog or digital input control signal and converts it to a regulated pneumatic output that is directly or inversely related to the input.



#### Voice coil technology

This is the earliest type of control technology. In voice coil systems, a flapper nozzle is attached to a voice coil that is immersed in a magnetic field. The strength of an electronic signal to the coil moves the coil into or out of the magnetic field. This movement causes a flapper nozzle to open or partially close an orifice and change the regulated output.

Fairchild's voice coil technology transducers are:

• T5200 Series • T5400 • T6000 Series

• T5420

- T5220 Series
- T5221 T5700

Input



#### 336-659-3400 • www.fairchildproducts.com



# Accessories



Fairchild offers a variety of accessories for product support. These items are:

- A selection of panel loading stations is available for local control to set or troubleshoot a control loop.
- Automatic drain filters are available to remove dirt, water, oil and other foreign matter from supply air lines.
- Manifold and rack kits for high density mounting T6000, T7800, T7950 and T8000 Series transducers.







### Service Kits

Service Kits are available for most products. These kits include elastomers and other items that are necessary to restore the unit to it's original operating condition.

## **Product Information**

For detailed information and product specifications, go to our web site at: www.fairchildproducts.com



These products are intended for use in industrial and process control compressed air and inert gas systems only. Do not use these products where pressures and temperatures can exceed those listed under the specifications.

Consult the factory before using these products with gases other than air for

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non-industrial applications, life support systems, or other applications that are not within the published specifications.

Fairchild Industrial products Company reserves the right to discontinue the manufacture of any product or to change product materials, design, specifications or pricing without notice



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