



Instrumentation & Process Control Solutions for the

Marine Industry

Fairchild Industrial Products offers a full line of heavy duty and high performance precision pneumatic and motion control products designed specifically to meet the needs of the Marine, Shipping and Offshore Industries. Our Pressure Regulators utilize stainless steel and durable hard coat epoxy finishes to provide superior service and longer life in the roughest marine conditions. When your application demands precision pressure control in a tough, offshore environment, you can rely on Fairchild's complete line of Electro-Pneumatic Transducers, Volume Boosters and Pressure Regulators.

PRESSURE TRANSDUCERS

Fairchild's TXI7850 I/P Transducer handles the toughest environments.

Model TXI7850 Moisture Resistant Explosion-proof Transducers



Specifications

	3 psig	9 psig	15 psig	30 psig *
Max. Air Consumption SCFH	3.5	7.0	9.5	13.5
All Ranges	(.10 m ³ /HR)	(.20 m ³ /HR)	(.27 m ³ /HR)	(.38 m ³ /HR)
Flow Rate (SCFM)	2.5 (4.25 m ³ /HR) @ 25 psig, [1.7 BAR], (170 kPa) supply & 9 psig, [0.6 BAR], (60 kPa) Output	OR		9.0 (15.3 m ³ /HR) @ 120 psig, [8.0 BAR], (800 kPa) supply & 9 psig, [0.6 BAR], (60 kPa) Output
Temperature Range (ISA SS I.1)	Operating -40°F to + 160°F	(-40°C to + 71.2°C)		
	Storage -40°F to + 180°F	(-40°C to + 82.2°C)		
Span/Zero Adjustments	Screwdriver adjustments located under cover			

* Extended Range to 100 psig, [7.0 BAR], (700 kPa) also available

Features

- Hard Epoxy Coated Exterior
- Stainless Trim
- Moisture and Vibration Resistant
- Explosion-Proof Enclosure
- No Brass Construction
- Can be used with Natural Gas Media
- **Marine service unit available with Z20132 suffix**

VOLUME BOOSTERS

The Model 20 Booster is designed for Marine use.

Model 20 Precision Booster



Specifications

Flow Capacity: SCFM (m ³ /HR) Supply = 100 psig	45 (76.5)
Exhaust Capacity: SCFM (m ³ /HR) Downstream Pressure 5 psig above 20 psig setpoint	7.5 to 11 (12.8 and 18.7) Varies with ratio
Sensitivity: Inch/WC (cm)	.25 to 1.50 (.64 to 3.8) Varies with ratio
Supply Pressure Effect: psig, [BAR], (kPa)	0.1 to 0.60 [.007 to .041] (0.7 to 4.0) Varies with ratio
Supply Pressure Maximum: psig, [BAR], (kPa)	250, [17], (1700)

Features

- Hard Epoxy Coated Exterior
- Stainless Trim
- High Output Flow for Quick Downstream Pressure
- Can be Serviced while Mounted
- Separate Control Chamber Eliminates Hunting or Buzzing
- **Marine service unit available with Z20129 suffix**

A larger capacity Booster, the Model 4500 Series is one tough unit.

Model 4500 High Flow No Bleed Design Booster



Specifications

Flow Capacity: SCFM (m ³ /HR) Supply = 100 psig	150 (255)
Exhaust Capacity: SCFM (m ³ /HR) Downstream Pressure 5 psig above 20 psig setpoint	40 (65.2)
Sensitivity: Inch/WC (cm)	1.0 to 3.0 (2.54 to 7.62) Varies with ratio
Supply Pressure Effect: psig, [BAR], (kPa)	<0.1 to 0.3 [.007 to .021] (0.7 to 2.1) Varies with ratio
Supply Pressure Maximum: psig, [BAR], (kPa)	250, [17], (1700)

Features

- Hard Epoxy Coated Exterior
- Stainless Trim
- Super High Output Flow for Faster Downstream Pressure
- Can be Serviced while Mounted
- Separate Control Chamber Eliminates Hunting or Buzzing
- **Marine service unit available with Z20131 suffix**

PRESSURE TRANSDUCERS

Fairchild's workhorse is the Model 10 Series Regulator.

Model 10 Precision Regulator



Specifications

Flow Capacity: SCFM (m³/HR) Supply = 100 psig	40 (68)
Exhaust Capacity: SCFM (m³/HR) Downstream Pressure 5 psig above 20 psig setpoint	5.5 (9.4)
Sensitivity: Inch/WC (cm)	0.125 (0.32)
Supply Pressure Effect: psig, [BAR], (kPa) For Supply Change: 100 psig	<0.1, [<.007], (<0.7)
Supply Pressure Maximum: psig, [BAR], (kPa)	500, [35.0], (3500)
Ambient Temperature	-40°F to +200°F

Features

- Hard Epoxy Coated Exterior
- Stainless Trim
- Handles High Supply Pressure
- High Precision Pressure Control
- Accurately Holds Set Point
- **Marine service unit available with Z20128 suffix**

The Model 30 Series Regulators gives big performance in a small package.

Model 30 Compact Precision Regulator



Specifications

Flow Capacity: SCFM (m³/HR) Supply = 100 psig	40 (68)
Exhaust Capacity: SCFM (m³/HR) Downstream Pressure 5 psig above 20 psig setpoint	2.0 (3.4)
Sensitivity: Inch/WC (cm)	0.25 (0.63)
Supply Pressure Effect: psig, [BAR], (kPa) For Supply Change: 100 psig	<0.2, [<.014], (<1.4)
Supply Pressure Maximum: psig, [BAR], (kPa)	250, [17], (1700)
Ambient Temperature	-40°F to +200°F (-40°C to +93.3°C)

Features

- Hard Epoxy Coated Exterior
- Stainless Trim
- Compact Size Regulator
- Separate Control Chamber Eliminates Hunting and Buzzing
- **Marine service unit available with Z20130 suffix**

The Model 63 Regulator is a heavy duty Filter Regulator.

Model 63 Pneumatic Filter Regulator



Specifications

Flow Capacity: SCFM (m³/HR) Supply = 100 psig	25 (42.5)
Exhaust Capacity: SCFM (m³/HR) Downstream Pressure 5 psig above 20 psig setpoint	0.4 (0.68)
Sensitivity: Inch/WC (cm)	1.0 (2.54)
Supply Pressure Effect: psig, [BAR], (kPa) For Supply Change: 100 psig	1.6, [.11], (11)
Supply Pressure Maximum: psig, [BAR], (kPa)	250, [17], (1700)
Ambient Temperature	-40°F to +160°F (-40°C to +71°C)

Features

- Standard 5-micron filter minimizes internal contamination.
- Stainless trim and epoxy paint for corrosive protection.
- Standard tapped exhaust.
- Soft Relief Seat minimizes air loss.

The Model 66 Regulator is a tough, heavy duty all Stainless Steel bodied Regulator.

Model 66 Stainless Regulator



Specifications

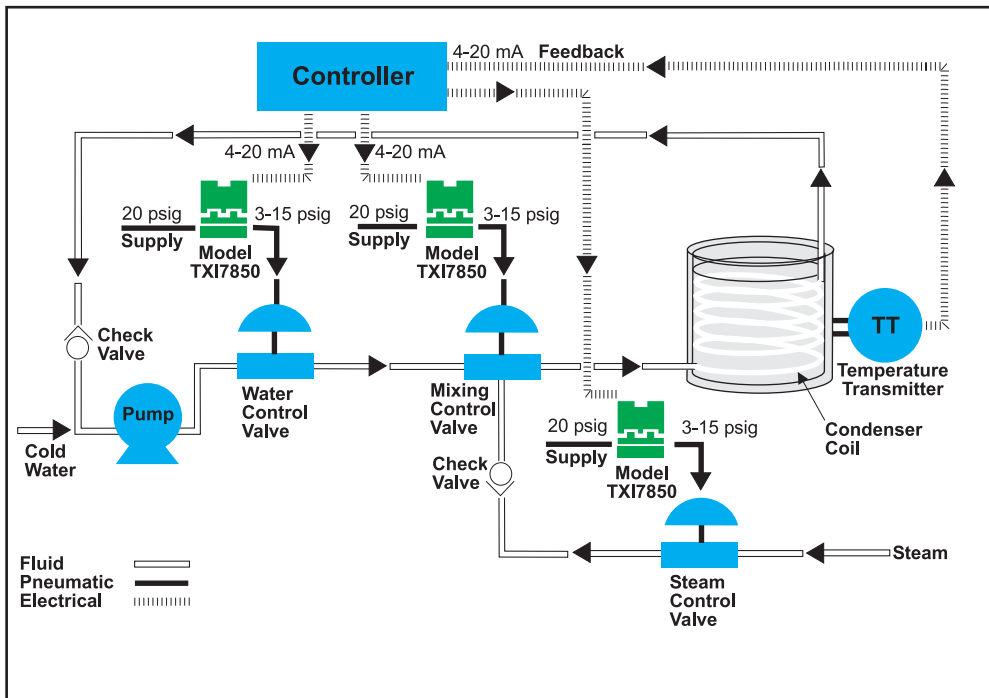
Flow Capacity: SCFM (m³/HR) Supply = 100 psig	22 (37.4)
Exhaust Capacity: SCFM (m³/HR) Downstream Pressure 5 psig above 20 psig setpoint	1.0 (1.7)
Sensitivity: Inch/WC (cm)	1.0 (2.54)
Supply Pressure Effect: psig, [BAR], (kPa) For Supply Change: 25 psig	<0.1, [<.007], (<0.7)
Supply Pressure Maximum: psig, [BAR], (kPa)	500, [35], (3500)
Ambient Temperature	-85°F to +300°F (-65°C to +149°C)

Features

- Stainless Steel Construction
- Handles High Supply Pressure
- Viton Elastomers for Corrosion Resistance
- Separate Control Chamber Eliminates Hunting or Buzzing

TYPICAL APPLICATIONS

Heat Exchanger Control



The process in a heat exchanger requires a mix of steam and cold water to maintain the temperature. Model TXI7850 Electro-pneumatic I/P Transducer receives an input signal from the controller. The transducers operate the water control valve, steam control valve, and the mixing control valve. The controller receives a feedback signal from the heat exchanger and adjusts the three valves to maintain the required temperature.

Louver Control

This application uses the Model 63 Regulator with a 5-micron filter to supply clean air or media to instrumentation or to confined areas aboard ship.

Supply media at 20 psig is routed to two Model TCXI7850 Explosion-Proof Transducers that control inlet and outlet air louvers on a compressor or exchanger. The Model TCXI7850 is constructed without copper-based metals for increased compatibility with the media supply. A

temperature controller would supply a 4-20 mA signal to the TCXI7850 transducers. The transducers provide a 3-15 psig signal to spring return cylinders that open and close the louvers for proper cooling in the stations.

