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We offer a full range of valve & instrumentation products & services, with our product range representing leading technologies & brands:

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**Temperature:** Temperature Probes & Thermowells, Temperature transmitters, Temperature Regulators & Temperature Displays

**Level:** Level Transmitters & Switches

**Pressure:** Pressure Gauges & Transmitters, Precision & High Pressure Regulators & I-P Converters, Volume boosters.

**Precision Pneumatics:** Pressure Regulators, I-P Converters, Volume Boosters, Vacuum Regulators

**Valves:** Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

**Services:** Repair, Calibration, Panel Build, System Design & Commissioning

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# FAIRCHILD T6100 Electro-Pneumatic Transducers

## Installation, Operation and Maintenance Instructions

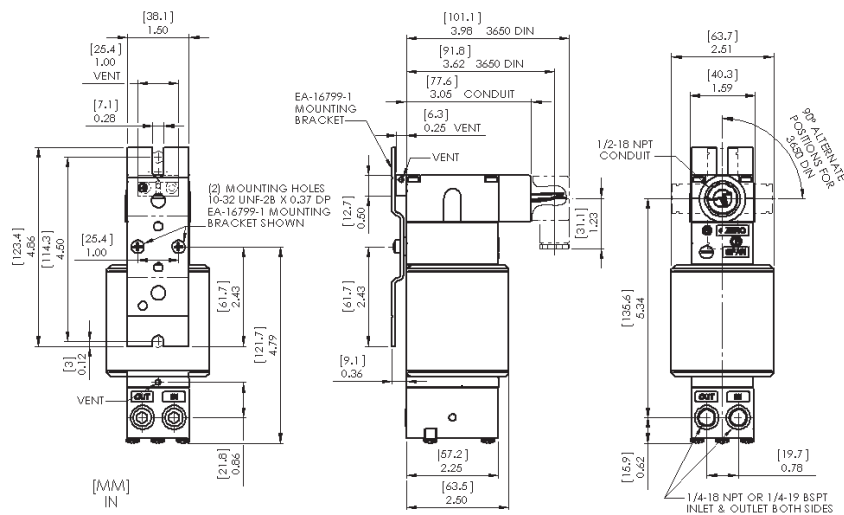
### INSTALLATION

The Model T6100 is supplied with mounting kit 16799-1 for panel mounting. See Figure 1.

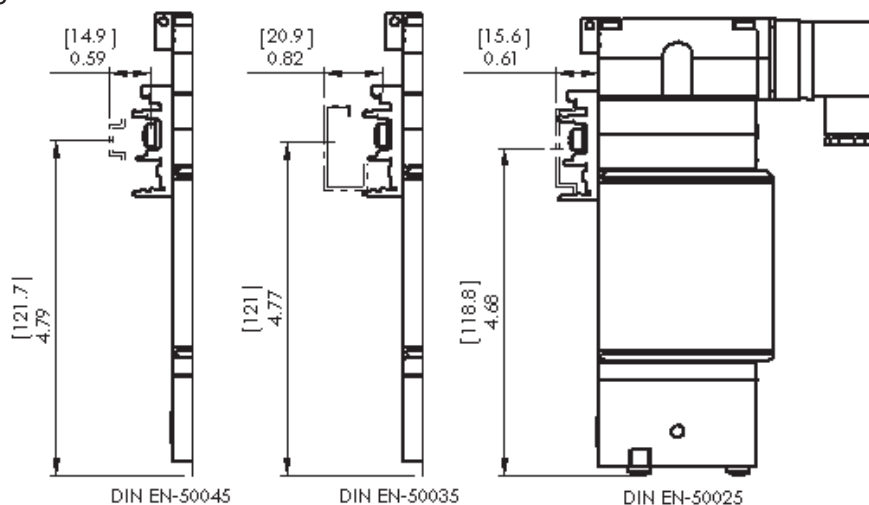
DIN Rail mounting kit 16893 is available for mounting on three different DIN rails. See Figure 2.

Mounting kit 19254 is available for mounting the unit on a 2" pipe. See Figure 3.

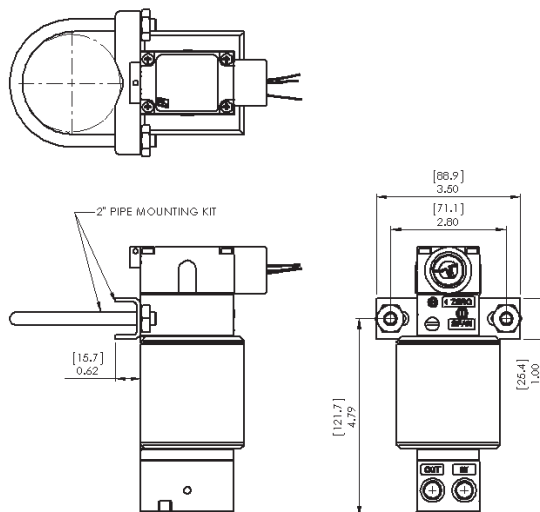
**Figure 1.** T6100 Mounting Kit 16799-1  
(included with unit)



**Figure 2.** DIN Rail Mounting Kit 16893  
(sold separately)

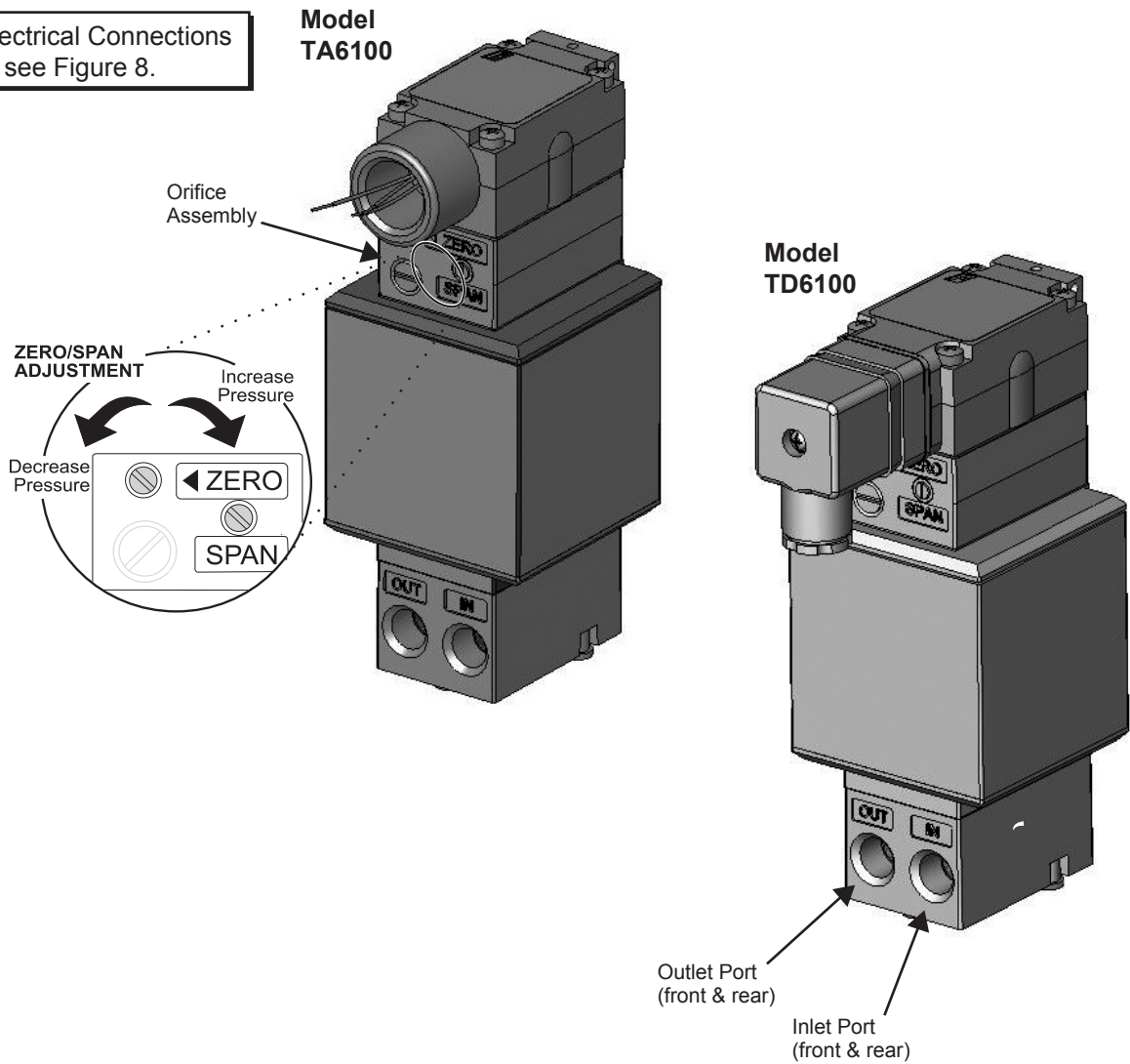


**Figure 3.** Pipe Mounting Kit 19254-1  
(sold separately)



**Figure 1. T6100 Standard Calibration Configuration**

For Electrical Connections  
see Figure 8.



**CALIBRATIONS /ADJUSTMENTS**

**Equipment Required for Calibration:**

- Pneumatic Supply capable of delivering up to 150 psig.
- Current Supply capable of delivering up to 60 mA.
- Pressure Gage capable of a digital readout up to 50 psig with an accuracy of .1%.
- Digital Volt Meter capable of a readout up to 60 mA with an accuracy of .02%.

**FULL RANGE OPERATION**

**CAUTION: Over-ranging the Zero Screw can damage unit.**

**Forward Acting Mode Adjustment**

1. Connect the input signal to the transducer as shown in Figure 8.
- Calibration-Zero
  2. Apply the minimum input signal and adjust the Zero screw for minimum output pressure. Turn screw clockwise to increase pressure and counterclock-wise to decrease pressure.
- Calibration-Span
  3. Apply the maximum input signal and adjust the Span screw for maximum output pressure. Turn screw clockwise to increase pressure and counterclock-wise to decrease pressure.
  4. Repeat steps 2-3 until the desired output range is obtained. For detailed information, see Figure 1 "T6100 Calibration Configuration."

## Pneumatic Connection

Clean all pipelines to remove dirt and scale before installation. Apply a minimum amount of pipe compound to the male threads of the fitting only. **Do Not use teflon tape as a sealant.** Start with the third thread back and work away from the end of the fitting to avoid contaminating the transducer. Install the transducer in the air line. The inlet and outlet ports are labeled on the ends of the transducer. Tighten connections securely. Avoid undersized fittings that will limit the flow through the transducer and cause pressure drop down stream.

**NOTE: Oil free air is required. Use a filter to remove dirt and liquid in the air line ahead of the transducer. If an air line lubricator is used, it MUST be located downstream to avoid interference with transducer performance.**

The user is responsible for insuring that the environment in which the unit will be installed and the operating gas are compatible with the materials in the transducer.

## Electric Connection

Make connections as shown in Figure 8.

## MAINTENANCE

To clean the Orifice, use the following procedure:

1. Shut off the valve that is supplying air to transducer. **It is not necessary to remove the Transducer from the air line.**
2. Remove the Orifice Assembly from the unit. For detailed information see Figure 1 "T6100 Calibration Configuration on page 1.
3. Clean with alcohol and dry with compressed air.

## NOTES:

**Parts must be completely dry before reassembling.**

**If the standard maintenance procedure does not correct the trouble, install the appropriate Service Kit below:**

**20781-1**

**Service Kits also include Gasket, O-Rings, and Membranes to replace "W" Option product.**

## TROUBLE-SHOOTING

| Table 1. Trouble-Shooting.  |   |
|-----------------------------|---|
| Problem                     | Solution (check)  |
| No Output                   | Supply Pressure<br>Clogged Orifice<br>Input Signal                                    |
| Leakage                     | Pneumatic Connections   |
| Low or Improper Span Adjust | Zero and Span Adjust<br>Supply Pressure Low<br>Output Leakage                         |
| Erratic Operation           | DC Signal<br>Loose Wires or Connections<br>Liquid in Air Supply<br>Dirt in Magnet Gap |

**WARNING: Failure of Transducer could result in output pressure increasing to supply pressure possibly causing personal injury or damage to equipment.**

## SPLIT RANGE OPERATION

All units have the capability to be split ranged or set for any output in the range as long as the Output Span is equal to or greater than the minimum Span.

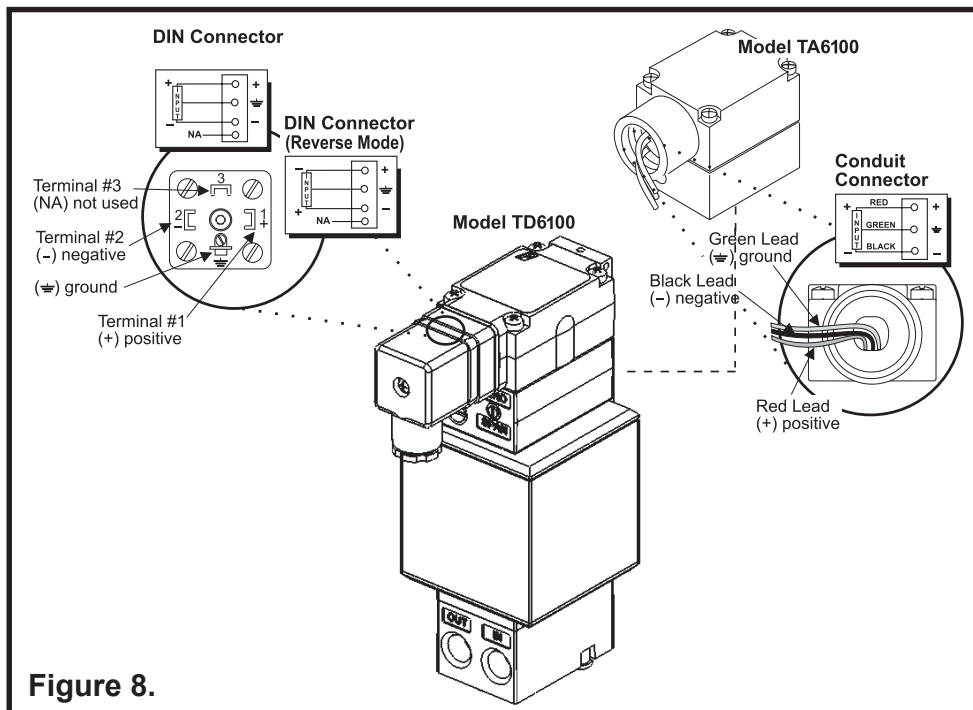


Figure 8.

## LEGAL NOTICE:

The information set forth in the foregoing Operation and Maintenance Instructions shall not be modified or amended in any respect without prior written consent of Fairchild Industrial Products Company. In addition, the information set forth herein shall be furnished with each product sold incorporating Fairchild's unit as a component thereof.



ISO 9001:2000  
FM NO. 25571



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OM-5T6100  
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