

# A Low Cost, High Performance Solution



## DESIGNED FOR HARSH CONDITIONS

Fairchild's Model TD8600 uses piezo and thin film technology to offer a rugged but inexpensive solution that is small and fits into hard-to-access areas.

## INSPIRED BY DIVERSE NEEDS






Pneumatic and Hydraulic systems in process, test and control applications may generate severe "spikes" that overpressure many sensors. To combat spikes, Fairchild employs a thin film technology on a stainless steel diaphragm. This higher mass diaphragm withstands short-term overpressure conditions inherent in hydraulic applications.

## EASILY ADAPTABLE






The TD8600 series utilizes several features to fit the widest possible applications. The EN175301-801A DIN connector is an industrial standard with excellent weather resistance. The TD8600 also has 0.5% Accuracy and is offered with a wide selection of 1/4" NPT or BSPP pressure ports.

## All New Model TD8600 P/I Pressure Transmitter

### Features:

-  Low Cost
-  0.5% Accuracy
-  Resistant to pressure spikes
-  Cost effective DIN connector
-  Welded stainless steel construction

### Typical Applications:

-  Hydraulic or Pneumatic systems
-  Process Control
-  Automation
-  Off road vehicles
-  Compressors and pumps

**PERFORMANCE**

|  |   |
|--|---|
| Full Scale Pressure Range .....              | 0- 10K PSIG(See Ordering Information)             |
| Non-Linearity (Best Fit Straight Line) ..... | ≤ ± 0.5% FSO                                      |
| Hysteresis & Repeatability .....             | < 0.16% FSO                                       |
| Full Scale Output (FSO)                      |   |
| Model TD8601 .....                           | 5 VDC ± 2% at 70° F                               |
| Model TD8602 .....                           | 20 mA ± 2% at 70° F                               |
| Resolution .....                             | Infinite  |
| Long Term Maximum Drift .....                | ≤ ± 0.1%  |
| Compensated Temperature Range .....          | 70° F to 170° F                                   |
| Maximum Operating Temperature .....          | 212°F (100°C) with "0" p/n designation            |
| Minimum Operating Temperature .....          | -22°F (-30°C) with "0" p/n designation            |
| Non-Operating Temperature Range .....        | -22° F to +212° F                                 |
| Thermal Effect on Zero .....                 | ≤ ± 0.5% FSO per 100° F Typical                   |
| Thermal Effect on Span .....                 | ≤ ± 1% FSO per 100° F Typical                     |
| Zero offset .....                            | ≤ 0.5 typ of span ≤ 0.8 max.                      |
| Fatigue life .....                           | 10 million load cycles maximum                    |
| Shock Resistance .....                       | 500g per IEC 60068-2-27 (mechanical shock)        |
| Vibration Resistance .....                   | 10g per IEC 60068-2-8 (vibration under resonance) |

**ELECTRICAL**

|   |   |
|---|---|
| Supply Voltage .....                    | 8 to 30 VDC   |
| Power Supply Regulation                 |   |
| Current consumption .....               | depends on signal   |
| Output Signal                           |   |
| Model TD8601 .....                      | 0 to 5 VDC  |
| Model TD8602 .....                      | 4 to 20 mA  |
| Maximum ohmic load RA .....             | 0... 10 V, 3-wire RA > 10K  |
|   | 0... 5 V, 3-wire RA > 5K  |
|   | 1... 5 V, 3-wire RA > 5K  |
|   | 0.5... 4.5 V, 3-wire RA > 4.5K  |
| RoHS-conformity .....                   | Yes   |
| Overvoltage protection .....            | VDC 32; 36 with 4 ... 20 mA   |
| Short-circuit protection                | Sig+ to UB-   |
| Reverse polarity protection .....       | UB+ to UB-  |
| Load Resistance (Model TD8602 only) ... | 1500 Ohms maximum   |
| Circuit Protection .....                | Reverse polarity protected. Varistor protected across input leads for surges above 36 VDC |
| Response Time .....                     | ≤ 5 mSec for 90% change in output   |
| Electrical Connections .....            | DIN plug EN175301-801-A   |

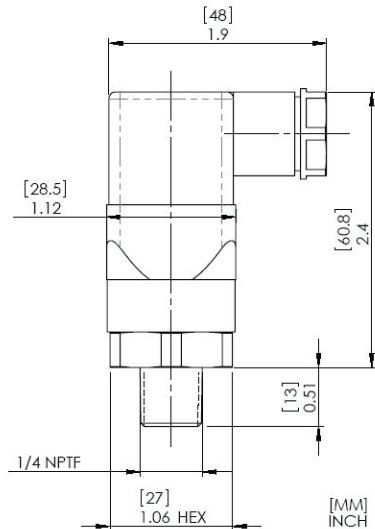
**MECHANICAL**

|                            |  |
|----------------------------|--|
| Pressure Connections ..... | 1/4" NPT (Typical)                           |
| Proof Pressure .....       | 1.5 times FSPR or 25K PSI, whichever is less |
| Burst Pressure .....       | 5 times FSPR or 30K PSI, whichever is less   |
| Mounting .....             | May be supported by process piping           |

**Materials of Construction**

|                      |               |
|----------------------|---------------|
| Wetted Parts .....   | 316L          |
| Housing .....        | 316L          |
| Weight .....         | 6 oz          |
| Identification ..... | Sticker label |

**OVERALL DIMENSIONS**



NOTE:  
ALL DIMENSIONS ARE NOMINAL, FOR REFERENCE ONLY

**ORDERING INFORMATION**

|   |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|
| <b>T D 8 6</b>  | [ ] | [ ] | [ ] | [ ] | [ ] |
| <b>Temperature Range</b>                                |     |     |     |     |     |
| -22° F to +212° F .....                                 | 0   |     |     |     |     |
| 32° F to +176° F .....                                  | 1   |     |     |     |     |
| <b>Output</b>   |     |     |     |     |     |
| 0-5 VDC .....   |     | 1   |     |     |     |
| 4-20 mA .....   |     | 2   |     |     |     |
| <b>Input Range *</b>                                    |     |     |     |     |     |
| 0-5 psi .....   |     |     | 11  |     |     |
| 0-30 psi .....  |     |     | 12  |     |     |
| 0-100 psi .....   |     |     | 13  |     |     |
| 0-300 psi .....   |     |     | 14  |     |     |
| 0-1000 psi .....  |     |     | 15  |     |     |
| 0-1500 psi .....  |     |     | 16  |     |     |
| 0-5000 psi .....  |     |     | 17  |     |     |
| 0-10,000 psi .....                                      |     |     | 18  |     |     |
| [0-1 BAR] .....   |     |     | 21  |     |     |
| [0-10 BAR] .....  |     |     | 22  |     |     |
| [0-25 BAR] .....  |     |     | 23  |     |     |
| [0-40 BAR] .....  |     |     | 24  |     |     |
| [0-100 BAR] .....                                       |     |     | 25  |     |     |
| [0-250 BAR] .....                                       |     |     | 26  |     |     |
| [0-400 BAR] .....                                       |     |     | 27  |     |     |
| [0-600 BAR] .....                                       |     |     | 28  |     |     |
| <b>SPECIAL RANGE*</b> .....                             |     |     | --  |     |     |
| (Please request desired range)                          |     |     |     |     |     |
| *Compound ranges also available. Please Contact Factory |     |     |     |     |     |
| <b>Pressure Format</b>                                  |     |     |     |     |     |
| Absolute .....  |     |     |     | A   |     |
| Gage .....  |     |     |     | G   |     |
| (gage format standard)                                  |     |     |     |     |     |
| <b>Pressure Port</b>                                    |     |     |     |     |     |
| 1/4" NPT Female .....                                   |     |     |     |     | 0   |
| 1/4" NPT Male .....                                     |     |     |     |     | 1   |
| 1/4 G Male .....  |     |     |     |     | 2   |
| 1/2 G male .....  |     |     |     |     | 4   |

**Electrical Connections**

