

Product Spotlight

Model TD8500 P/I Pressure Transmitter

Fairchild Industrial Products

A High Pressure OEM Solution

Designed to provide excellent repeatability and long life, the TD8500 is shock and vibration resistant for rough duty.

The small size makes it ideal for tight spots. All-welded stainless construction for demanding industrial and heavy-duty applications. The TD8500 is environmentally sealed and factory preset for no field adjustment, to provide a sealed transmitter impervious to contamination from the environment.

The diaphragm, machined from corrosion resistant billet steel, is free from oil fills, isolation diaphragms or silicon-chip sensors, enhancing its durability.



Features:

- Compact Size
- Long service life
- Shock resistant
- Vibration resistant
- All-Welded Design
- Environmentally sealed

Typical Applications:

- Off Road Vehicles
- Hydraulic Systems
- Pumps and Compressors
- Heavy Machinery
- General Industrial

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Model TD8500 P/I Pressure Transmitter

Specifications

Performance

Full Scale Pressure Range (FSPR)	See Ordering Information
Non-linearity (Best Fit Straight Line)	$\leq \pm 0.5\%$ FSO
Hysteresis and repeatability	$\leq \pm 0.3\%$ FSO
Full Scale Output (FSO)	
TD8501	5 VDC $\pm 3\%$ @ 70°F (21°C)
TD8502	16 mA $\pm 3\%$ @ 70°F (21°C)
Long Term Stability	$\leq \pm 0.5\%$ FSO per 6 months
Compensated Temperature Range	70°F to 170°F (21°C to 76°C)
Maximum Operating Temperature Range	200°F (93°C) Process
Minimum Operating Temperature Range	-20°F (-28°C)
Non-Operating Temperature Range	-60°F to +250°F (-51°C to 121°C)
Thermal Effect on Zero	$\leq \pm 3\%$ FSO per 100°F (37°C) typical
Thermal Effect on Span	$\leq \pm 2\%$ FSO per 100°F (37°C) typical

Electrical

Supply Voltage	10 to 30 VDC
Power Supply Regulation	$\leq \pm 0.3\%$ FSO
TD8501	$\leq \pm 0.05\%$ FSO per volt
TD8502	$\leq \pm 0.08\%$ FSO per volt
Output Signal	
TD8501	0-5 VDC (0-10 VDC optional)
TD8502	4-20 mA
Circuit Protection	Reverse polarity protected. Varistor protected across the input leads for surges above 40 VDC and currents to 8 Amps peak with a pulse width of 1 mSec.
Insulation Resistance	1000 MegOhms at 50 VDC
Response Time	< 5 mSec
Electrical Connection	DIN plug 43650

Mechanical

Proof Connection	1/4" NPT Female
Proof Pressure	1.5X FSPR or 25K psi, whichever is less
Burst Pressure	5X FSPR or 30K psi, whichever is less
Pressure Cavity Volume	0.07 cubic inches
Mounting	May be supported by process piping

Materials of Construction

Wetted Parts	15-5PH Stainless Steel
Housing	304 Stainless Steel
Weight	10 oz (283 g)

Adapters available for: G1/2" male thread, G1/4" male thread, 1/4" NPT male thread

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Catalogue Information

Catalogue Number T D 8 5 0

Output

0-5 VDC
4-20 mA



Input Range*

(gauge format standard; contact factory for options)

- 0-100 psi
- 0-300 psi
- 0-500 psi
- 0-1000 psi
- 0-1500 psi
- 0-2000 psi
- 0-5000 psi
- 0-15000 psi

- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19

- [0-10 BAR]
- [0-25 BAR]
- [0-40 BAR]
- [0-75 BAR]
- [0-100 BAR]
- [0-150 BAR]
- [0-350 BAR]
- [0-1000 BAR]

- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29

SPECIAL RANGE*

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Pressure Format

Absolute
Gauge



Performance Options

Mating Electrical Connection



* Custom calibrated pressure ranges available



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