

Model T2 Pressure Transducer



APPLICATIONS

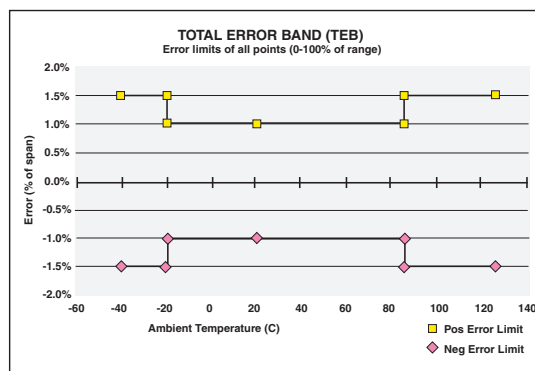
An affordable digitally compensated instrument for general industrial applications.

- Process Automation
- Compressor Control
- Hydraulic Systems
- Engine Monitoring
- Pump Control
- Pneumatics
- Refrigeration Equipment
- Presses
- Machine Tools
- Other General Industrial Applications

FEATURES

- 0.25% accuracy class
- Ranges 30 psi through 20,000 psi
- -40 to +125°C temperature capability
- All welded pressure construction
- Proven polysilicon thin film sensor
- Precision ASIC based electronics
- High EMI/RFI immunity rating
- Highly configurable
- Voltage and current outputs
- Choice of electrical connections

The T2 employs a polysilicon thin film sensor with a proven long term stability. The sensor is electron beam welded to a stainless steel pressure fitting to ensure high overpressure ratings and integrity in high shock, vibration and pressure cycling applications. Through the use of a high performance ASIC and modern digital compensation techniques the T2 provides extraordinary performance over temperature. The graph that follows depicts the performance over temperature on a Total Error Band basis – the Total Error Band includes not only temperature effects but also non-linearity, hysteresis and non-repeatability.



PERFORMANCE SPECIFICATIONS

Ref. Temperature, 21°C ±1°C (70°F, ±2°F)

Accuracy:

Static Accuracy Class: ±0.25% of span (BFSL Method) including non-linearity, hysteresis, non-repeatability at reference temperature

Temperature Effect:

-20°C to 85°C <±1% of Span – Total Error Band
-40°C to -20°C <±1.5% of Span – Total Error Band
-85°C to 125°C <±1.5% of Span – Total Error Band
Total Error Band includes the combined effects of non-linearity (Terminal Point Method), hysteresis, non-repeatability, temperature and zero offset and span setting errors. For higher performance availability consult factory

Stability: Less than ±0.25% span/year

Durability: Tested to 50 million cycles

ENVIRONMENTAL SPECIFICATIONS

Temperature:

Compensated -40 to 125°C (-40 to 257°F)
Operating -40 to 125°C (-40 to 257°F)
Storage -40 to 125°C (-40 to 257°F)

Humidity: 0 to 100% R.H., no effect

FUNCTIONAL SPECIFICATIONS

Select from over 25 pressure ranges starting at 30 psi and running through 20,000 psi. Compound (vacuum & pressure) ranges are also available, see below.

Overpressure (F.S.):	Proof	Burst
750 psi & below	200% FS	1000% FS
1500 psi	200% FS	500% FS
3000 psi	200% FS	500% FS
5000 psi	150% FS	500% FS
7500 psi	120% FS	500% FS
10,000 psi	120% FS	240% FS
20,000 psi	120% FS	240% FS

Vibration: Random vibration (20 g) over temperature range (-40° to 125°C). Exceeds typical MIL-STD. requirements

Shock: 100gs, 6 ms

Drop Test: Withstands 1 meter on concrete 3 axis

Response Time: Less than 1 msec

Warm-up Time: Less than 500 msec typical

Position Effect: Less than ±0.01% span, typical

ELECTRICAL SPECIFICATIONS

Output Signals Available:

Voltage Output	Excitation	Supply Current
0-5 Vdc, 3 wire	9-36 Vdc	5mA
0-10 Vdc, 3 wire	14-36 Vdc	5mA
1-5 Vdc, 3 wire	9-36 Vdc	4mA
1-6 Vdc, 3 wire	9-36 Vdc	4mA

Ratiometric Output

0.5-4.5 Vdc, 3 wire 5 Vdc ±0.5 Vdc 3.5mA

Current Output

4-20mA, 2 wire 9-36 Vdc

Reverse Polarity & Miswired Protected: Yes

Insulation Breakdown Voltage: 100 Vac

Insulation Resistance: Greater than 100 megohms at 100 Vdc

CE Compliance: Per EN 61326: 1997+ A1: 1998 + A2: 2001, Annex A (Heavy Industrial)

