

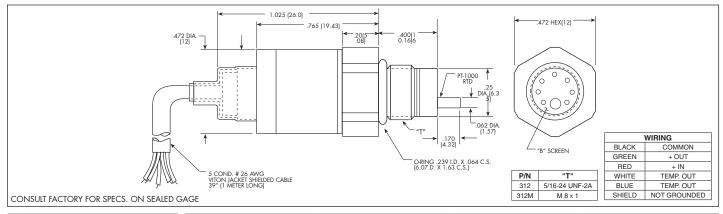
ULTRAMINIATURE 5V OUTPUT HIGH TEMPERATURE IS® PRESSURE TRANSDUCER WITH INTEGRATED TEMPERATURE SENSOR

ETL/T-312 (M) SERIES

- Combined Pressure and Temperature Capability
- Robust Construction
- Excellent Long Term Stability
- Patented Leadless Technology VIS®

The ETL/T-312 is a miniature threaded pressure transducer/platinum RTD combination. The pressure transducer utilizes a patented silicon on silicon design. The platinum RTD protrudes beside the diaphragm to sense media temperature. The pressure and temperature devices are designed to operate independently. All wetted parts of the transducer are compatible with most aircraft and automotive fluids.





Operational Mode	INPUT Pressure Range	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	170 2500	250 BAR 3600 PSI	
Burst Pressure All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory) Maximum Electrical Current All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory) Maximum Electrical Excitation 12 ± 4 VDC	Operational Mode	Absolute, Sealed Gage								
Pressure Media	Over Pressure	2 Times Rated Pressure to 1000 PSI (70 BAR) 1.5 Times Rated Pressure Above 1000 PSI to a Max. of 6000 PSI (420 BAR)								
Maximum Electrical Current 12 ± 4 VDC 28 ± 4 VDC	Burst Pressure	3 Times Rated Pressure								
Rated Electrical Excitation	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)								
OUTPUT Full Scale Reading 5 VDC ± 75mV (3 Wire System Single Ended Output) 5 VDC ± 75mV or 10 VDC ± 150mV (3 Wire System Single Ended Output) Output Impedance 200 Ohms (Nom.) TOTO 1000 Ohms Platinum, DIN EN 60751 Tables (65% Response Time 3 Seconds Max.) Bandwidth (-3dB) DC to 3000 Hz DC to 3000 Hz Residual Unbalance 0.5V ± 75mV Combined Non-Linearity, Hysteresis and Repeatability ± 0.1% BFSL (Typ.), ± 0.5% BFSL (Max.) Resolution Transverse 5.0x10 ⁴ 3.0x10 ⁴ 1.5x10 ⁴ 1.0x10 ⁴ 6.0x10 ⁵ 4.0x10 ⁵ 2.5x10 ⁵ 1.7x10 ⁵ 6.0x10 ⁶ 4.0x10 ⁶ 2.2x10 ⁶ 1.8x10 ⁶ Insulation Resistance 5.0x10 ⁴ 3.0x10 ⁴ 1.5x10 ⁴ 1.0x10 ⁴ 6.0x10 ⁶ 4.0x10 ⁶ 2.2x10 ⁶ 1.8x10 ⁶ Insulation Resistance 100 Megohm Min. @ 50 VDC ENVIRONMENTAL Operating Temperature Range -65°F to +350°F (-55°C to +175°C) Compensated Temperature Range -65°F to +350°F (-55°C to +175°C) Thermal Sensitivity Shift ± 1% FS/100°F (Typ.) Steady Acceleration and Linear Vibration 100g Peak, Sine up to 5000 Hz Humidity 100g Peak, Sine up to 5000 Hz Humidity 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39° (1 Meter Long) Weight 15 Grams Excluding Cable Fully Act	Maximum Electrical Current	25 mA								
Full Scale Reading 5 VDC ± 75mV (3 Wire System Single Ended Output) (3 Wire System Single Ended Output) Output Impedance 200 Ohms Nom.	Rated Electrical Excitation	12 ± 4 VDC				28 ± 4 VDC				
RTD		5 VDC ± 75mV (3 Wire System Single Ended Output)								
Bandwidth (-3dB)	Output Impedance	200 Ohms (Nom.)								
Residual Unbalance Combined Non-Linearity, Hysteresis and Repeatability Resolution Acceleration Sensitivity % FS/g Perpendicular Transverse Insulation Resistance ENVIRONMENTAL Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Steady Acceleration and Linear Vibration Humidity Mechanical Shock PHYSICAL Electrical Connection Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology	RTD	1000 Ohms Platinum, DIN EN 60751 Tables (65% Response Time 3 Seconds Max.)								
Combined Non-Linearity, Hysteresis and Repeatability	Bandwidth (-3dB)	DC to 3000 Hz								
## Secolution	Residual Unbalance	0.5V ± 75mV								
Acceleration Sensitivity % FS/g Perpendicular Transverse 5.0x10 ⁴ 3.0x10 ⁵ 1.5x10 ⁴ 1.0x10 ⁵ 6.0x10 ⁵ 4.0x10 ⁵ 2.0x10 ⁵ 1.0x10 ⁵ 6.0x10 ⁶ 4.0x10 ⁵ 2.2x10 ⁶ 1.2x10 ⁶		± 0.1% BFSL (Typ.), ± 0.5% BFSL (Max.)								
Perpendicular Transverse	Resolution	Infinitesimal								
ENVIRONMENTAL Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Steady Acceleration and Linear Vibration Humidity Mechanical Shock PHYSICAL Electrical Connection Weight Pressure Sensing Principle ENVIRONMENTAL Operating Temperature Range -65°F to +375°F (-55°C to +175°C) 1 100°F (Typ.) 1 100°	Perpendicular									
Operating Temperature Range-65°F to +375°F (-55°C to +190°C)Compensated Temperature Range-65°F to +350°F (-55°C to +175°C)Thermal Zero Shift± 1% FS/100°F (Typ.)Thermal Sensitivity Shift± 1% /100°F (Typ.)Steady Acceleration and Linear Vibration100g Peak, Sine up to 5000 HzHumidity100% Relative HumidityMechanical Shock100g 11 msec. 10,000g. 100µ sec.PHYSICAL Electrical Connection5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long)Weight15 Grams Excluding CablePressure Sensing PrincipleFully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology	Insulation Resistance	100 Megohm Min. @ 50 VDC								
Thermal Zero Shift t 1% FS/100°F (Typ.) Thermal Sensitivity Shift t 1% /100°F (Typ.) Steady Acceleration and Linear Vibration Humidity Mechanical Shock PHYSICAL Electrical Connection Weight Pressure Sensing Principle Thermal Zero Shift t 1% FS/100°F (Typ.) 100g Peak, Sine up to 5000 Hz 100g Relative Humidity 100% Relative Humidity 100g 11 msec. 10,000g. 100µ sec. 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long) Thermal Zero Shift t 1% FS/100°F (Typ.) Thermal Zero Shift t 1% FS/100°F (Typ.) Thermal Zero Shift t 100°F (Typ.) Thermal Zero Shift T		-65°F to +375°F (-55°C to +190°C)								
Thermal Sensitivity Shift Steady Acceleration and Linear Vibration Humidity Mechanical Shock PHYSICAL Electrical Connection Weight Pressure Sensing Principle Thermal Sensitivity Shift ± 1% /100°F (Typ.) 100g Peak, Sine up to 5000 Hz 100g Relative Humidity 100% Relative Humidity 100g 11 msec. 10,000g. 100µ sec. 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long) 15 Grams Excluding Cable Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology	Compensated Temperature Range	-65°F to +350°F (-55°C to +175°C)								
Steady Acceleration and Linear Vibration 100g Peak, Sine up to 5000 Hz Humidity 100% Relative Humidity Mechanical Shock 100g 11 msec. 10,000g. 100µ sec. PHYSICAL Electrical Connection 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long) Weight 15 Grams Excluding Cable Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology	Thermal Zero Shift	± 1% FS/100°F (Typ.)								
Vibration 100g Peak, Sine up to 5000 Hz Humidity 100% Relative Humidity Mechanical Shock 100g 11 msec. 10,000g. 100μ sec. PHYSICAL Electrical Connection 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long) Weight 15 Grams Excluding Cable Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology	Thermal Sensitivity Shift	± 1% /100°F (Typ.)								
Mechanical Shock 100g 11 msec. 10,000g. 100μ sec. PHYSICAL Electrical Connection 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long) Weight 15 Grams Excluding Cable Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology		100g Peak, Sine up to 5000 Hz								
PHYSICAL Electrical Connection 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long) Weight 15 Grams Excluding Cable Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology	Humidity	100% Relative Humidity								
Electrical Connection 5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long) Weight 15 Grams Excluding Cable Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology	Mechanical Shock	100g 11 msec. 10,000g. 100μ sec.								
Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology		5 Conductor 26 AWG Viton Jacket Shielded Cable (or Equivalent) 39" (1 Meter Long)								
	Weight	15 Grams Excluding Cable								
Mounting Torque 50 Inch-Pounds (Max.) 6Nm	Pressure Sensing Principle	Fully A	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology							
	Mounting Torque	50 Inch-Pounds (Max.) 6Nm								