STELLAR TECHNOLOGY

ISO 9001/AS9100 Certified

YOUR ENGINEERED SOLUTION SOURCE SM

ST150

AEROSPACE PRESSURE TRANSDUCERS



DESCRIPTION

The Series ST150 pressure transducers are designed to meet the rigorous requirements of the aerospace industry.

These pressure sensors incorporate 316 stainless steel wetted parts to meet the hydrogen compatibility requirements needed for many aerospace sensor applications. The ST150 pressure transducer combines compact size, rugged construction, and a unique isolation diaphragm design to give highly accurate dynamic and static pressure measurements. Additional design features include a wide compensated temperature range, all welded stainless steel construction, long term stability, low sensitivity to shock and vibration, infinite resolution, and built-in over-pressure protection for ranges up to 2000 psi.

Series ST150 pressure transducers are available in absolute, gage, and sealed pressure references. Each unit is shipped with a 19 point calibration record traceable to NIST as standard.

STANDARD FEATURES

- 316 SS Wetted Material (Hydrogen compatible)
- Lightweight/Compact size
- Low Thermal Error
- 3 mV/V output
- Wide Compensated Temperature Range
- Built-in Over Pressure Protection
- All Stainless Steel Construction
- Shock and Vibration Resistant
- 19 Point Calibration Record Traceable to NIST

OPTIONAL FEATURES

- Customer Specified Electrical Termination
- Special Calibrations

A US Manufacturer of: Pressure, Temperature, Load/ Force/Torque, and Displacement Sensors.

PERFORMANCE

STATIC ACCURACY

Linearity:	± 0.20% FSO.
Hysteresis:	± 0.20% FSO.
Repeatability:	± 0.10% FSO.

RESOLUTION
Infinite

THERMAL ZERO SHIFT
< ± 0.005% FSO/°F.

THERMAL SPAN SHIFT
< ± 0.005% FSO/°F.

ZERO BALANCE
± 1% FS at 70°F.

FULL SCALE OUTPUT
3.0 ± 0.015 mV/V at 70°F.

ACCELERATION RESPONSE
< ± 0.15% FSO/G at 15 psi to
± 0.0015% FS/G at 2000 psi.

MECHANICAL CHARACTERISTICS

STANDARD RANGES
0 - 15, 25, 30, 50, 75, 100, 200, 500, 750, 1000, 1500, 2000 PSIA / PSIS.

PROOF PRESSURE

15 to 200 PSI range:	500 PSI
500 to 2000 PSI range:	1.5 X range.

BURST PRESSURE
3.0 X range or 1500 PSI whichever is greater.

OPERATING MEDIA
Liquids and gases compatible with 316 stainless steel.

NATURAL FREQUENCY
1.0 kHz at 15 PSI to 3 kHz at 2000 psi.

PRESSURE FITTING
7/16”-20 per AS4395E4 / MS33656-4 (Male) – (Standard).
7/16”-20 per AS5202E4 / MS33649-4 (Female) – (No charge option).
For additional pressure fittings please consult factory.

ENCLOSURE
Body and pressure cavity of stainless steel, hermetically sealed.

WEIGHT
4.0 oz.

ELECTRICAL CHARACTERISTICS

EXCITATION
10 Vdc recommended, 15 Vdc max.

INPUT / OUTPUT RESISTANCE
350 ± 3.5 ohms at 70°F.

INSULATION RESISTANCE
> 10K megohms at 50 Vdc at 70°F.

ELECTRICAL TERMINATION
MIL-C-26482 Class
No. 3113H-10-6P.
Optional electrical terminations available.

WIRING

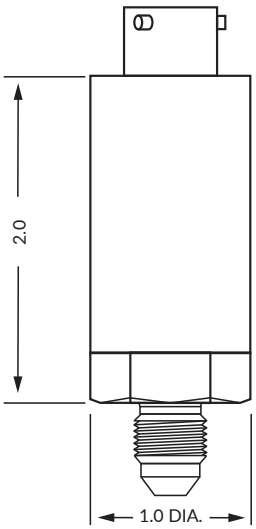
PIN A	(+) Excitation
PIN B	(+) Signal
PIN C	(-) Signal
PIN D	(-) Excitation
PIN E, F	No Connection Shunt Available

Standard configuration shown.
Options available.

ENVIRONMENTAL CHARACTERISTICS

COMPENSATED TEMPERATURE RANGE
-65°F to +250°F.

OPERATING TEMPERATURE RANGE
-100°F to +300°F.



CE

MODIFICATIONS AND WARRANTY
MODIFICATIONS: We realize transducer applications vary greatly and as such our designs are flexible. Choice of pressure port, electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.
WARRANTY: Stellar Technology warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that Stellar Technology’s obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by Stellar Technology. This warranty is in lieu of all other warranties expressed or implied.

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Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.