

Series ST550

Pressure Transducer

ST550



Description

The Series ST550 is an extremely small, accurate, reliable pressure transducer for measuring dynamic and static pressures. Available in absolute, sealed gage, or true gage zero pressure reference, the unit is entirely welded of stainless steel. Major feature of design is its small size. Other features include long term stability, low sensitivity to shock and vibration, wide temperature range, excellent response to transient pressures, infinite resolution and built in over-pressure protection for ranges

Standard Features

- Extremely small
- Lightweight
- Stainless Steel construction
- High proof pressures for low ranges
- Ranges to 30K
- Hermetically sealed

Optional Features

- Alternative pressure ports
- Alternative electrical connectors
- Alternative materials of construction
- Expanded operating range
- Increased compensated temperature range

Your “Application-SolutionSM” Source

Series ST550

Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below

Performance

Static Accuracy

Linearity: $\pm 0.20\%$ FS.
Hysteresis: $\pm 0.20\%$ FS.
Repeatability: $\pm 0.10\%$ FS.

Resolution

Infinite

Thermal Error

$\pm 0.020\%$ FS/°F typical over the compensated temperature range.

Input / Output Resolution

350 ± 3.5 ohms at 70°F.

Insulation Resolution

Greater than 10K megohms at 50 Vdc at 70°F.

Zero Balance

0.00 mV $\pm 1\%$ FS at 70°F.

Natural Frequency

1.0 kHz at 15 PSI to 347 kHz at 30,000 PSI.

Acceleration Response

Less than $\pm 0.15\%$ FS/G at 15 PSI to $\pm 0.0015\%$ FS/G at 30,000 PSI.

Mechanical Characteristics

Standard Ranges

0 - 15, 25, 30, 50, 75, 100, 200, 500, 750, 1000, 1500, 2000, 3000, 5000, 7500, 10000, 15000, 20000, 25000 and 30000 PSIA / PSIG.

Proof Pressure

15 - 200 PSI ranges: 500 PSI.
500 PSI range and up: 1.5 times range.

Burst Pressure

3 times range or 1500 PSI whichever is greater.

Operating Media

Fluids and gases compatible with 316 and 347 or 17-4PH stainless steel.

Mechanical Characteristics

Pressure Fitting

7/16-20 per MS33656-4 for ranges up to and including 10,000 PSI.
AE F250-C, 9/16-18 UNF for ranges 15,000 PSI and up.

Weight

3.5 ounces maximum.

Electrical Characteristics

Excitation

10 Vdc recommended, 15 Vdc max.

Full Scale Output

3.00 ± 0.015 mV per volt of excitation at 70°F.

Electrical Receptical

Stainless steel hermetic to mate with an MS3116-10-6S or equal.

Wiring

Excitation +A, -D; Signal +B, -C;
No connection E, F. (Shunt avail.)

Environmental Characteristics

Compensated Temperature Range

-65°F to +250°F.
(-320°F to +425°F optional)

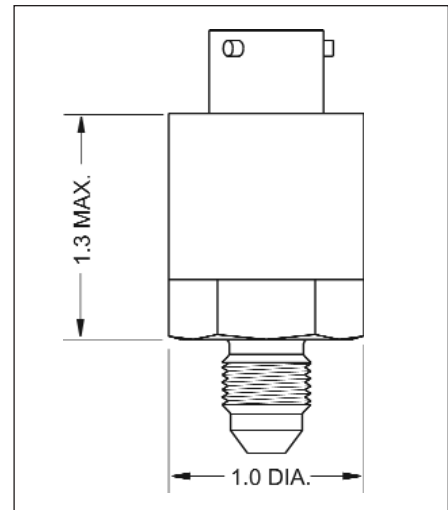
Operating Temperature Range

-100°F to +300°F.
(-320 to +450°F optional)

Enclosure

Body and pressure cavity of stainless steel, hermetically sealed.

Dimensions (inches)



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. See accessory listing for additional choices.

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.

Ordering Information

Contact the factory or your Authorized Stellar Technology, Inc. Representative.

Stellar Technology Incorporated is an
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Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

