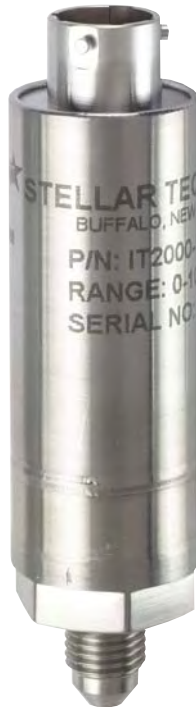


Series IT20XX

Intelligent Pressure Transducers



Description

Advancing technologies allow STI to provide more features along with much higher accuracies in our IT20XX Series “Smart” transducers. By combining the ruggedness and reliability of Bonded Foil Strain Gage Technology with our advanced, “state of the art”, digital circuit design, a highly flexible, accurate, and economical instrument is produced.

This allows the advanced operating systems of today the ability to maintain high degrees of quality and operation in a flexible and affordable manner, and, with economical sensors which can be easily configured. This, combined with our years of experience and “field use” data, allows for a variety of configurations and provides you, our customers, the “Application-Solutions” demanded.

The pressure transducer is corrected digitally providing a highly accurate unit. Temperature errors are corrected over its entire compensated temperature range virtually eliminating a major part of a transducer error variable while providing a very stable unit.

As standard, an RS-232 or RS-485 output can be provided for functional use as well as for set up and calibration. Calibration, Zeroing, Ranging and shunt for your unit is done thru your PC. Optionally, the units can provide highly accurate, digitally corrected, analog output.

Standard Features

- Ranges up to 30,000 PSI
- .05% accuracy
- RS-232 or RS-485 interface
- -40 to +185°F
- Stainless Steel Construction
- 80% Shunt
- PC interface
- Temperature signal (digital)
- Multidropping Capability i.e. RS-485

Optional Features

- Analog Output: .05 to 4.95 Volts, 4-20 mA
- PC Interface Kits
- Temperature signal (analog)
- Customer Specified Connector
- Alternate Materials of Construction
- CANbus Interface

Series IT20XX Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below
Custom Designs Available

Performance

Static Accuracy - Digital

0.05% FSO.

Total Error - Digital

0.1% FSO.

Static Accuracy - Analog

0.1% FSO.

Thermal Error

± .05% FSO/100°F.

Resolution

.025% FSO.

Frequency Response

Consult Factory.

Span

± 1% FSO at 70°F.

Mechanical Characteristics

Standard Ranges

0 - 5, 10, 25, 30, 50, 75, 100, 200, 500, 750, 1000, 1500, 2000, 3000, 5000, 7500, 10000, 15000, 20000, 25000 and 30000 PSIA / PSIG.

Proof Pressure

1.5 times FSO range minimum.

Burst Pressure

2.0 times FSO range minimum.

Operating Media

Fluids and gases compatible with stainless steel. Inconel and other materials optional.

Enclosure

Body and pressure cavity of stainless steel, hermetically sealed.

Pressure Fitting

1/4" NPT Male or Female.

7/16"-20 per MS33649-4 (Female).

7/16"-20 per MS33656-4 (Male).

AE F250-C, 9/16-18 UNF for ranges 15,000 PSI & up.

Weight

Approximately 6 ounces.

Electrical Characteristics

Digital Output

RS-232 and RS-485.

Smart Interface

RS-232, RS-485, PDA, CANbus, MODbus.

Command Syntax

Standard Commands for Programmable Instruments (SCPI).
Other formats available.

Supported Measurements

Pressure and Temperature.

Measurement Modes

Query/Response and constant output.

Units of Measure

Pressure: PSI.

Temperature: °F.

Analog Output (optional)

3-Wire:

Voltage: .05-4.95V.

4-Wire - isolated:

Voltage: 0-5V.

4-20mA DC.

Excitation

4-20mA Current Loop:

2-wire 9-36 Vdc unregulated.

3-wire 14-40 Vdc unregulated.

Isolated Voltage Output:

8-18 Vdc or 14-32 Vdc unregulated.

Non-Isolated Voltage Output:

8-30 Vdc unregulated.

3 or 4 wire available.

Shunt Output

80% FSO.

Electrical Termination

PTIH-10-6P stainless steel connector or equivalent.

Wiring (RS-232/485) (3-Wire)

POWER: A. TXD/INV: D.

COMMON: B. RXD/NON INV: E.

SIGNAL: C. SHUNT: F.

Standard configuration shown.

Options available.

Environmental Characteristics

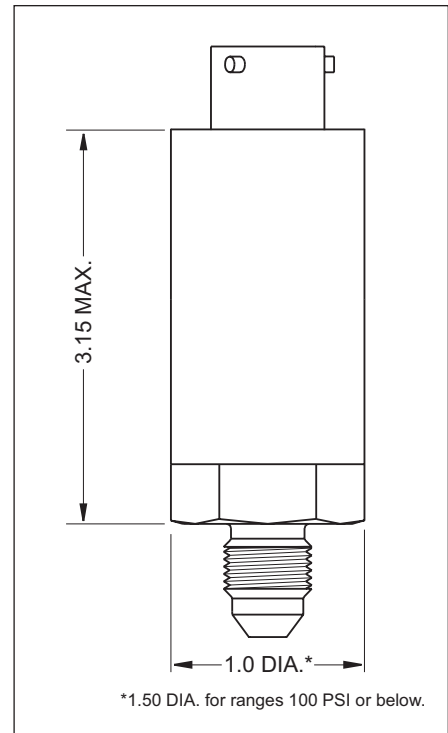
Compensated Temperature Range

+30°F to +170°F.

Operating Temperature Range

-40°F to +185°F.

Dimensions (inches)



MODEL IDENTIFICATION

I	T	2	0	X	X
	<u>SERIES</u>	<u>ANALOG OUTPUT</u>	<u>DIGITAL OUTPUT</u>		
		0 = Volts	0 = None		
		5 = 2-wire Loop	1 = RS-485		
		6 = 3-wire Loop	2 = RS-232		
		1 = None	4 = CANbus		



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.

Find More Information at:
stellartech.com

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

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