

Series DT14XX

Differential Pressure Transducers

DT14XX



Standard Features

- **Stainless Steel Construction**
- **Removable/cleanable Pressure Ports**
- **Traceability to NIST**
- **Low Differential**
- **High Line Overload**
- **Uni- or Bi- Directional Operation**

Optional Features

- **Higher Base Line Pressures**
- **Welded Design for Submersible Operation**
- **Alternate Electrical Connectors**
- **Customer Specified Pressure Ports**
- **Alternate Materials of Construction**

Description

The model DT14XX pressure sensors provide reliable and stable solutions for differential high level output units. At the heart of the unit is a unique mechanical stop system which provides high line protection for low differential.

The units provide many features as standard yet offer a host of mechanical and electrical options to compliment a solution to a specific application challenge. As in all of STI's products, the tried and true "Bonded Foil Strain Gage" technology creates a rugged unit yet provides sensitivity to shock and vibration. The unit is serviceable and compliments the "Application-Solutions" demanded of today's market place.

The brief specifications listed on the back are but a few of the more important parameters of interest. Make sure to contact the sales office closest to you for further definition.

Your "Application-SolutionSM" Source

Series DT14XX Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below

Performance

Static Accuracy

± 0.25% FSO by BFSL.

Thermal Zero Shift

< ± 0.010% FSO/°F.

Thermal Span Shift

< ± 0.020% FSO/°F.

Insulation Resistance

> 100 megohms at 50 Vdc at 70°F.

Zero Balance

±1% FSO at 70°F.

Span

± 1% FSO at 70°F.

Resolution

Analog: Infinite.

Digital: .025% FSO.

Frequency Response

Consult Factory.

Mechanical Characteristics

Standard Ranges

0-1, 2, 5, 10, 15, 20, 25, 30, 50, 75, 100,
150, 200, 250, 300, 400, 500 PSID
Bidirectional or Unidirectional.

Differential Overload Pressure

1000 PSI may be applied to either port
without causing a zero shift greater than
1% FSO.

Line Pressure

1000 PSI (5000 PSI optional). Zero shift
with line pressure is less than 1% FSO
per 1000 PSI of line pressure.
(2% FSO for 1 & 2 PSID).

Operating Media

Fluids and gases compatible with
316 stainless steels, and BUNA-N.
Fill fluid is Krytox oil.

Pressure Fitting

1/4" NPT female.

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

Weight

Approximately 4.5 lbs.

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.

Electrical Characteristics

ANALOG OUTPUTS

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:

8-40 Vdc unregulated.

3 or 4 wire available.

DIGITAL OUTPUTS

Excitation

RS-232, RS-485, CANbus

8-30 Vdc unregulated.

Programming

PC.

COMMON

Electrical Termination

PT1H-10-6P stainless steel connector or
equivalent.

Electrical Protection

- EMI/RFI protected.
- Surge protection to 500 Vdc.
- Reverse polarity protected.
- Short circuit protected

Environmental Characteristics

Compensated Temperature Range

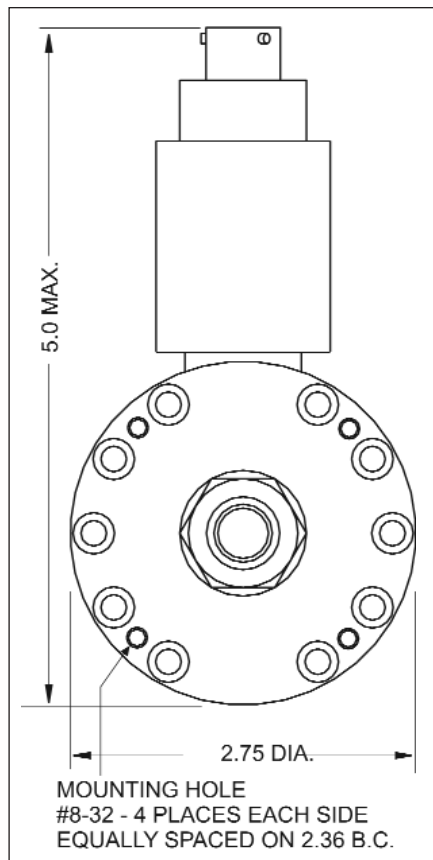
-10°F to +160°F.

Options available.

Operating Temperature Range

-45°F to +185°F.

Dimensions (inches)

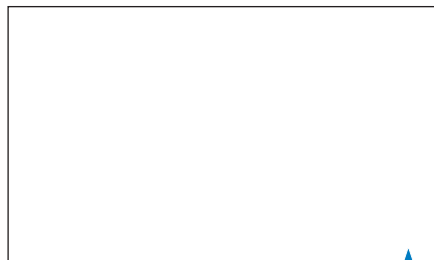


MODEL IDENTIFICATION

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SERIES		ANALOG OUTPUT	DIGITAL OUTPUT		
		0 = Volts	0 = None		
		5 = 2-wire Loop	1 = RS-485		
		6 = 3-wire Loop	2 = RS-232		
		1 = None	4 = CANbus		

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Registered Company

Represented By:



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.

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

