

# Series DT140

Differential Pressure Transducers

# DT140



## Description

The Series DT140 is a reliable, rugged, wet-wet differential pressure transducer, with a high line pressure capability, for measuring static differential pressures. The major design feature is a high differential overload pressure capability. Other features of design include removable pressure caps for inspection and cleaning, long term stability, availability in bidirectional or unidirectional outputs, infinite resolution and built in over-pressure protection.

## 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 to 30K**
- **Welded design for submersible operation**
- **Alternative electrical connectors**
- **Alternative materials of construction**
- **Alternative pressure ports**

**Your “Application-Solution<sup>SM</sup>” Source**

# Series DT140 Specifications

Baseline Configuration Specs Represented.  
Modifications Encouraged - See Below

## Performance

### Static Accuracy

Linearity:  $\pm 0.25\%$  FSO.  
Hysteresis:  $\pm 0.25\%$  FSO.  
Repeatability:  $\pm 0.20\%$  FSO.

### Resolution

Infinite

### Thermal Zero Shift

$< \pm 0.010\%$  FSO/ $^{\circ}$ F.

### Therm. Sens. Shift

$< \pm 0.020\%$  FSO/ $^{\circ}$ F.

### Input / Output Resistance

$350 \pm 3.5$  ohms at  $70^{\circ}$ F.

### Insulation Resistance

$> 10K$  megohms at 50 Vdc at  $70^{\circ}$ F.

### Zero Balance

$\pm 1\%$  FSO at  $70^{\circ}$ F.

## Mechanical Characteristics

### Standard Ranges

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% FS per  
1000 PSI of line pressure.

### Operating Media

Fluids and gases compatible with 316  
and 347 stainless steels, Ti-6AL-4V  
and Teflon. Fill fluid is Krytox oil.

### Pressure Fitting

7/16-20 per MS33649-4.  
Pressure caps are removable.

### Weight

Approximately 4 lbs.

## Electrical Characteristics

### Excitation

10 Vdc recommended, 15 Vdc max.

### Electrical Termination

PT1H-106P stainless steel connector or  
equivalent.

### Wiring

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

## Environmental Characteristics

### Compensated Temperature Range

$-10^{\circ}$ F to  $+160^{\circ}$ F.

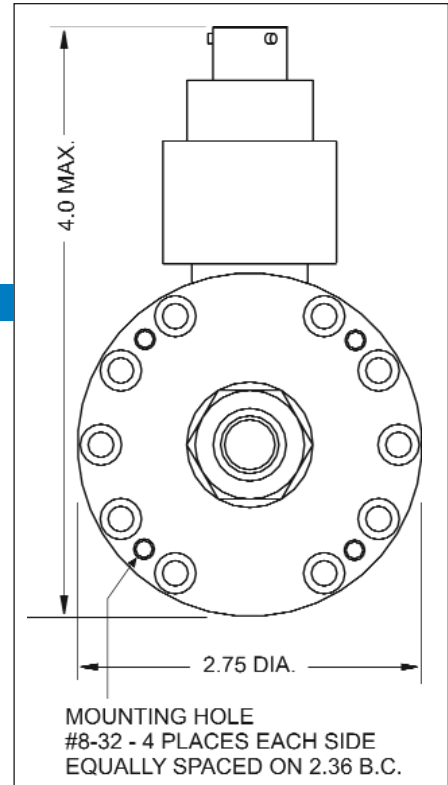
### Operating Temperature Range

$-40^{\circ}$ F to  $+185^{\circ}$ F.

### Enclosure

Body and pressure cavity of  
stainless steel, environmentally  
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.

## Represented By:

Stellar Technology Incorporated is an  
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