

Series DTH920

Thru-Hole Load Cell



Description

The Series DTH920 thru-hole load cells are 0.05% accuracy force transducers designed with a clear center hole for applications requiring a load structure to pass thru the load cell. Depending on the force loading arrangement, these “donut-style” force transducers can be used to measure either tension or compression. The compact construction is all welded stainless steel. These bonded foil strain gaged force sensors provide reliable performance for a wide range of demanding applications. Features include shock and vibration protection. DTH920 load cells are ideal for applications involving clamping forces, bolt and fastener force, and structural analysis. Each unit is shipped with a 5 point calibration record traceable to NIST as standard.

Standard Features

- Low Profile
- 0.50% Accuracy
- Tension or Compression
- 2 mV/V
- All Welded Stainless Steel
- -65°F to 250°F Standard Temperature
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST

Optional Features

- Metric Thru-Holes
- Custom Capacities
- Special Calibration
- Customer Specified Cable Lengths
- -65°F to +400°F Operating Temperature
- Submersible Configurations

Performance

Standard Ranges

250 lbs through 30,000 lbs.

Output

2mV/V nominal.

Accuracy

0.50% BFSL.

Temperature Effect on Zero

0.005% FSO/°F.

Temperature Effect on Span

0.005% Reading/°F.

Zero Balance

3% FSO.

Environmental Characteristics

Operating Temperature Range

-65°F to 250°F.
(-65°F to 400°F optional.)

Compensated Temperature Range

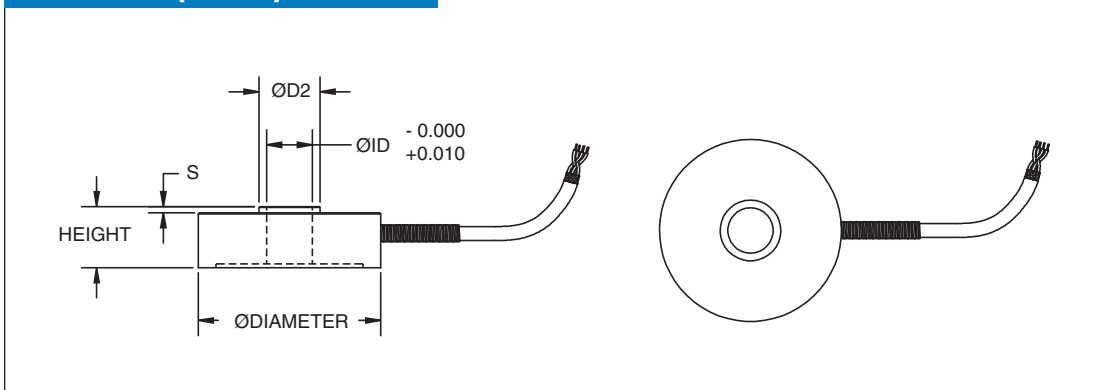
70°F to 170°F.
(-65°F to 400°F optional.)

DTH920

Series DTH920 Specifications

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

Dimensions (inches)



Frame	Diameter	Height	ØD2	S	Min Range (LB)	Max Range (LB)	Max ID
A	1.50	0.50	0.50	0.05	250	2K	0.38
B	2.00	0.63	0.88	0.05	250	10K	0.66
C	3.00	0.75	1.70	0.08	2K	30K	1.28

Mechanical Characteristics

Static Overload Without Damage
150% FSO.

Calibration

Standard calibration is 5 pts (0, 50%, 100%, 50%, 0) compression.

Material

Welded stainless steel.

Thru Hole

See table.

Electrical Characteristics

Bridge Resistance

700 Ohms nominal.

Excitation

10 Vdc or Vac.

Insulation Resistance

Greater than 5000 megaohms at 50 Vdc.

Electrical Termination

10', 4 Conductor Shielded Teflon Cable.

Electrical Characteristics

Connector Pins (Standard)

RED	+EXE	GREEN	+SIG
BLACK	-EXE	WHITE	-SIG

Customer specified wiring codes are available.



NOTES: When using a load cell the user must consider load ratings and fatigue life for long term use and structural integrity. Critical loading applications, especially overhead loading, must always be designed with safety redundant load paths.

MODIFICATIONS: We realize load cell applications vary greatly and as such our designs are flexible. 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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