

PNC720 Series

General Purpose Compression Pancake Load Cells

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Description

PNC720 Series load cells are low profile “pancake” designs for compression force applications. These load cells incorporate an integral spherical load button with welded dual diaphragms for improved accuracy and rigidity. PNC720 Series load cells are constructed of welded stainless steel for very demanding application environments. Bolted-on hermetic stainless steel electrical connectors with O-ring seals are standard. Welded hermetically sealed connectors are also available. Additional features include shock and vibration protection and barometric compensation. Each unit is shipped with a 5 point calibration record traceable to NIST as standard.



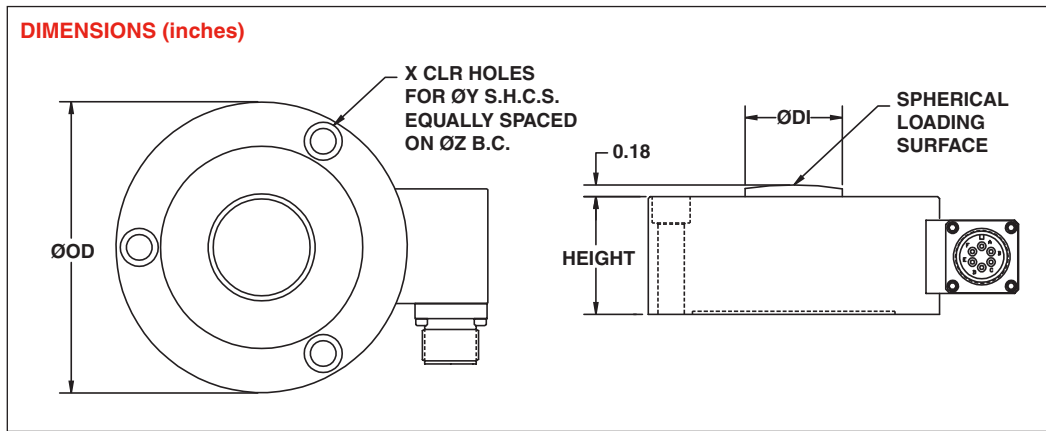
Standard Features

- Up to 0.10% FSO Accuracy
- Low Profile Design
- Compression Loading
- 3 mV/V Output
- Welded Stainless Steel
- Shock and Vibration Resistant
- -65°F to +250°F Standard Operating Temperature
- Barometrically Compensated
- 5 Point Calibration Record Traceable to NIST

Optional Features

- Customer Specified Electrical Termination
- Metric Versions
- Overload Stops
- Special Calibrations
- Internal Amplifier for High Level Analog and/or Digital Output
- Submersible Versions to 30,000 ft Seawater
- -320°F to +400°F Operating Temperature

LORD DATA SHEET



Capacity (lbs)	ØOD	Height	X	Y	Z	D1	Accuracy BFSL (% FSO)	Linearity Typical (% FSO)	Hysteresis Typical (% FSO)	Connector
100, 250, 500, 1000	3.00	1.00	6	1/4	2.250	0.56	0.10	0.10	0.08	PTIH-10-6P
2K, 5K	3.50	1.00	6	5/16	2.625	0.66	0.10	0.10	0.08	PTIH-10-6P
10K, 20K	4.50	1.82	3	3/8	3.790	1.50	0.10	0.10	0.08	MS3102-14S-6P
50K	4.50	1.82	3	3/8	3.790	1.50	0.20	0.10	0.15	MS3102-14S-6P

PERFORMANCE

Standard Ranges

100 to 50000 lbs FSO (see table)

Output

3 mV/V \pm 0.5% FSO

Accuracy

See table above

Linearity

See table above

Hysteresis

See table above

Repeatability

0.03% FSO

Temperature Effect on Zero

0.002% FSO/ $^{\circ}$ F

Temperature Effect on Span

0.002% Reading/ $^{\circ}$ F

Zero Balance

1% FSO

MECHANICAL CHARACTERISTICS

Standard Calibration

5 points (0, 50%, 100%, 50%, 0) Compression

Static Overload Without Damage

150% FSO

Material

Welded Stainless Steel

ENVIRONMENTAL CHARACTERISTICS

Compensated Temperature Range

70 $^{\circ}$ F to 170 $^{\circ}$ F

Operating Temperature Range

-65 $^{\circ}$ F to +250 $^{\circ}$ F (-320 $^{\circ}$ F to +400 $^{\circ}$ F optional)

ELECTRICAL CHARACTERISTICS

Bridge Resistance

350 ohms nominal

Excitation

10 Vdc or Vac

Insulation Resistance

> 5000 megohms at 50 Vdc

Electrical Termination

For ranges up to 5000 lbs:

PTIH-10-6P Stainless Steel Connector or equivalent

For ranges >5000 lbs:

MS3102-14S-6P Stainless Steel Connector (MIL-C-5015 with glass to metal seals)

Wiring

A (+) Excitation

B (+) Excitation

C (-) Excitation

D (-) Excitation

E (-) Signal

F (+) Signal

Customer specified wiring codes available.

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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