

# Series PNC720

General Purpose Compression Pancake Load Cell



## Description

The Series PNC720 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. The PNC720 series is constructed of all welded stainless steel for very demanding application environments. Bolted-on or welded-on stainless steel electrical connectors are standard. Hermetically sealed connectors are also available providing for a fully hermetic load cell. 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

- 0.10% Accuracy
- Low Profile Design
- Compression Loading
- 3 mV/V output
- All 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
- Dual/Triple Bridges
- Submersible Versions to 30,000 ft. Seawater
- - 320°F to 400°F Operating Temperature

## Performance

### Standard Ranges

100 lbs. FSO to 120,000 lbs. FSO. (see table)

### Output

3 mV/V  $\pm$ 0.50% FSO.

### Linearity

0.10% FSO.

### Hysteresis

0.08% FSO.

### Repeatability

0.03% FSO..

### Temperature Effect on Zero

0.002% FSO/°F.

### Temperature Effect on Span

0.002% Reading/°F.

### Zero Balance

1% FSO.

## Environmental Characteristics

### Operating Temperature Range

-65°F to 250°F.  
(-320°F to 400°F optional.)

### Compensated Temperature Range

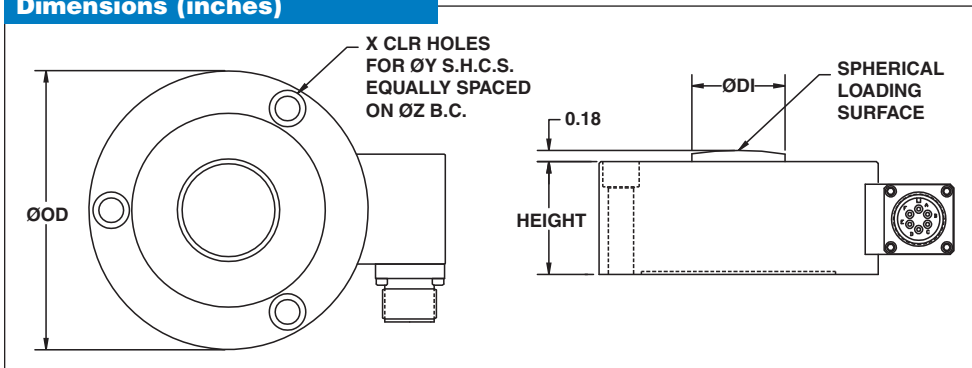
70°F to 170°F.

PNC720

# Series PNC720 Specifications

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

## Dimensions (inches)



Capacity (lbs.)	$\varnothing OD$	Height	X	Y	Z	D1
100, 250, 500, 1000	3.00	1.00	6	1/4	2.250	0.56
2K, 3K, 5K	3.50	1.00	6	5/16	2.625	0.66
10K, 20K, 30K, 50K, 75K, 100K, 120K	4.50	1.82	3	3/8	3.790	1.50

## Mechanical Characteristics

**Static Overload Without Damage**  
150% FSO.

### Calibration

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

### Material

Welded stainless steel.

## Electrical Characteristics

### Bridge Resistance

350 Ohms nominal.

### Excitation

10 Vdc or Vac.

### Insulation Resistance

Greater than 5000 megaohms at 50 Vdc.

### Electrical Termination

#### Ranges Up To 5000 lbs.

PTIH-10-6P Stainless Steel Connector or equivalent.

#### Ranges Over 5000 lbs.

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

## Electrical Characteristics

### Connector Pins (Standard)

A +EXE D - EXE  
B +EXE E - SIG  
C - EXE F +SIG

Customer specified wiring codes are available.



## Modifications and Warranty

**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.

**LORD SENSING**  
Stellar Technology

ISO 9001/AS9100

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

Copyright © 2015 LORD Corporation • All Rights Reserved  
Datasheet P/N: 226406F DCN 9338

237 Commerce Drive • Amherst, NY 14228 • USA  
Tel: 716.250.1900 • Fax: 716.250.1909  
Web: stellartech.com • Email: info@stellartech.com