

Series PNC760

Fatigue Rated, Precision Pancake Load Cell



Shown with optional base

Standard Features

- Accuracies to 0.03%
- Fatigue Rated (100 Million Cycle Life)
- Tension and Compression
- Low Profile Design
- 2 mV/V Output
- -65°F to +250°F Operating Temperature
- Welded High Strength Steel
- 0.25% Off-Axis Sensitivity
- Barometrically Compensated
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST

Optional Features

- Customer Specified Threaded Center Hole
- Customer Specified Electrical Termination
- Overload Stops
- Metric Versions
- -320°F to +400°F Operating Temperature
- Special Calibrations (i.e. ASTM E74)
- Internal Amplifier for High Level Analog and/or Digital Output
- Dual/Triple Bridges

Description

The Series PNC760 load cells are fatigue rated low profile “pancake” configurations for both tension and compression applications. These force sensors incorporate a threaded-through center hole. The PNC760 combines high accuracy with very low off-axis sensitivity. PNC760 series is constructed of high strength carbon steel. Bolted-on stainless steel electrical connectors are standard. The PNC760 can be specified with an optional base plate which increases both rigidity and mounting flexibility. 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. (See Series PNC740 for stainless steel version)

Performance

Standard Ranges

250, 500, 1000, 2500, 5000, 12.5K, 25K, 50K, 100K lbs.

Output

2 mV/V nominal.

Accuracy

Up to 0.03% FSO BFSL (See Table).

Temperature Effect on Zero

0.0008% FSO/ F.

Temperature Effect on Span

0.0008% Reading/°F.

Creep, in 30 min

0.025% Load.

Off-Axis Sensitivity

0.25% / in.

Zero Balance

1% FSO.

Environmental Characteristics

Operating Temperature Range

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

Compensated Temperature Range

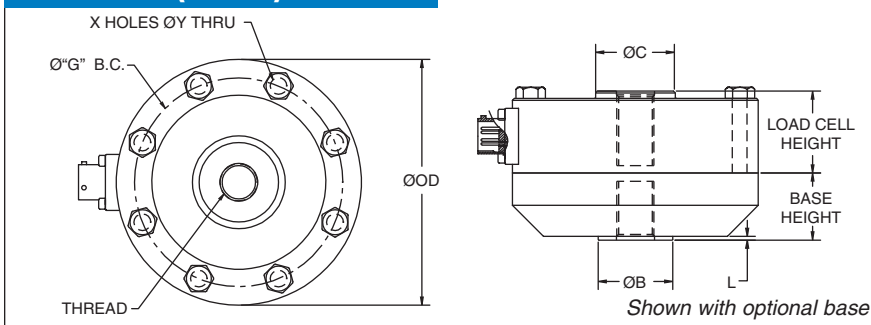
15°F to 115°F.
(-65°F to 400°F optional.)

PNC760

Series PNC760 Specifications

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

Dimensions (inches)



Capacity (lbs.)	ØOD	Thread	Height	X	ØY	ØG	ØC	Base Height	ØB	Material
250, 500, 1000	4.13	5/8-18 UNF	1.38	8	0.28	3.50	1.34	1.13	1.25	Aluminum
2.5K, 5K	4.13	5/8-18 UNF	1.38	8	0.28	3.50	1.34	1.13	1.25	Steel
12.5K, 25K	6.00	1 1/4-12 UN	1.75	12	0.41	5.13	2.65	1.75	2.25	Steel
50K	8.00	1 3/4-12 UN	2.50	16	0.53	6.50	3.76	2.00	3.00	Steel
75K, 100K	9.00	2 1/2-12 UN	3.00	16	0.66	7.88	4.00	2.75	4.00	Steel

MECHANICAL CHARACTERISTICS AND RATINGS

CAPACITY (LBS)	250, 500, 1K	2.5K, 5K	12.5K, 25K	50K	75K, 100K
Accuracy (%FSO BFSL)	0.03	0.04	0.05	0.05	0.06
Linearity (%FSO)	0.04	0.04	0.05	0.05	0.05
Hysteresis (%FSO)	0.03	0.04	0.05	0.05	0.06
Repeatability (%FSO)	0.02	0.02	0.02	0.02	0.02
Deflection @ FSO	0.001	0.001	0.001	0.002	0.002

Mechanical Characteristics

Static Overload Without Damage
200% FSO.

Calibration

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

Material

Environmentally sealed and painted
high strength steel or aluminum
(see table).

Electrical Characteristics

Bridge Resistance

350 Ohms nominal.

Excitation

10 Vdc or Vac.

Maximum Excitation

20Vdc or Vac.

Insulation Resistance

Greater than 5000 megaohms
at 50 Vdc.

Electrical Termination

PTIH-10-6P, Stainless steel with Gold
Plated Pins.

Electrical Characteristics

Connector Pins (Standard)

A +EXE D - EXE

B +SIG E NC

C -SIG F NC

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

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