



ISO 9001/AS9100 Certified

PNC740

FATIGUE RATED, PRECISION PANCAKE LOAD CELL

YOUR ENGINEERED SOLUTION SOURCE SM



Shown with optional base

DESCRIPTION

The Series PNC740 load cells are fatigue rated low profile "pancake" configurations for both tension and compression applications.

These force sensors incorporate a threaded-through center hole with dual diaphragms welded to the sensing section and the mounting outer section. This design results in very low off-axis sensitivity. The PNC740 series is constructed of welded stainless steel. Bolted-on hermetic stainless steel electrical connectors with O-ring seals and gold plated pins are standard. The PNC740 can be specified with an optional base plate which increases both sensor 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.

STANDARD FEATURES

- 0.05% FSO Accuracy
- Fatigue Rated (100 Million Cycle Life)
- Tension and Compression
- Low Profile Design
- 2 mV/V Output
- Welded Stainless 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
- Internal Amplifier for High Level Analog and/or Digital Output
- Dual Bridges

PERFORMANCE

STANDARD RANGES

250, 500, 1000, 2500, 5000 lbs.

OUTPUT

2 mV/V nominal.

ACCURACY

0.05% FSO BFSL.

REPEATABILITY

0.02% FSO.

TEMPERATURE EFFECT ON ZERO

0.002% FSO/°F.

TEMPERATURE EFFECT ON SPAN

0.002% Reading/°F.

CREEP, IN 30 MIN

0.025% Load.

OFF-AXIS SENSITIVITY

0.25% FSO for combined induced side load & bending

ZERO BALANCE

1% FSO.

ENVIRONMENTAL CHARACTERISTICS

OPERATING TEMPERATURE RANGE

-65°F to 250°F.

(-320°F to 400°F optional.)

COMPENSATED TEMPERATURE RANGE

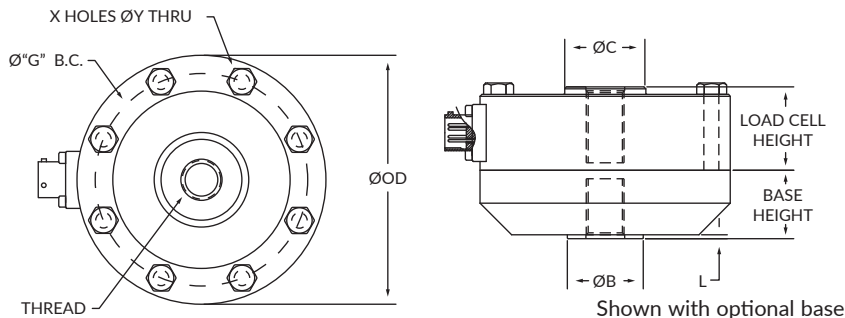
15°F to 115°F.

(-65°F to 400°F optional.)



A US Manufacturer of: Pressure, Temperature, Load/
Force/Torque, and Displacement Sensors.

(See Series PNC760 for high strength steel version)



CAPACITY (LBS)	ØOD	THREAD	HEIGHT	X	ØY	ØG	ØC	BASE HEIGHT	ØB
250, 500, 1000	4.13	5/8-18 UNF	1.38	8	0.28	3.50	1.34	1.13	1.25
2.5K, 5K	4.13	5/8-18 UNF	1.38	8	0.28	3.50	1.34	1.13	1.25

MECHANICAL CHARACTERISTICS

STATIC OVERLOAD WITHOUT DAMAGE

200% Range.

CALIBRATION

Tension only:

5 points (0, 50%, 100%, 50%, 0 of Range).

OPTIONAL CALIBRATIONS

- Compression only:
5 points (No charge option)
- Tension and Compression:
5 points in each direction
- Special multipoint calibration (customer specified):
in tension or compression or
both tension and compression.

MATERIAL

Welded stainless steel.

ELECTRICAL CHARACTERISTICS

BRIDGE RESISTANCE

350 or 700 Ohms nominal.

EXCITATION

10 Vdc or Vac.

MAXIMUM EXCITATION

20 Vdc or Vac.

INSULATION RESISTANCE

Greater than 5000 megohms 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	N/C
C	-SIG	F	N/C

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.



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

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