

# Series PNC770/2

Low Profile, Precision Pancake Load Cell

## Standard Features

- Tension / Compression
- Integral Base
- 0.05% Accuracy
- Barometrically Compensated
- 10 Million Cycle Life
- Low Off-Axis Sensitivity
- -65° to 130° F Operation
- Light Weight, Aircraft Aluminum
- mV/V and Amplified Operation



PNC772 shown

## Standard Specifications

### Performance

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Capacities</b>                    | 25, 50, 100, 200, 300lbs.. |
| <b>Output</b>                        | 2 mV/V +/-0.25% FSO.       |
| <b>Accuracy</b>                      | 0.05% FSO BFSL.            |
| <b>Compensated Temperature Range</b> | 30° to 130° F.             |
| <b>Operating Temperature Range</b>   | -65° to 130° F.            |
| <b>Temperature Effect on Zero</b>    | 0.002% FSO/ °F.            |
| <b>Temperature Effect on Span</b>    | 0.002% Reading/ °F.        |
| <b>Creep, in 30 min</b>              | 0.025% Load.               |
| <b>Zero Balance</b>                  | 1% FSO.                    |
| <b>Bridge Resistance</b>             | 350 Ohms nominal.          |

### Mechanical Characteristics

|                                 |  |
|---------------------------------|--|
| <b>Calibration</b>              | 5 Points (0, 50%, 100%, 50%, 0) Tension/Compression. |
| <b>Static Overload Capacity</b> | 150% FSO.  |
| <b>Load Limits</b>              | See Table.   |
| <b>Construction</b>             | Aluminum.  |

### Electrical Characteristics

|                               |  |
|-------------------------------|--|
| <b>Excitation</b>             | 10 Vdc or Vac.   |
| <b>Maximum Excitation</b>     | 20 Vdc or Vac.   |
| <b>Insulation Resistance</b>  | Greater than 5000 megaohms at 50 Vdc at 70°F.                    |
| <b>Electrical Termination</b> |  |
| <b>PNC770</b>                 | 15 FEET, 4 Conductor PVC, 22 AWG Dual twisted pairs with shield. |
| <b>PNC772</b>                 | PTIH-10-6P Stainless Steel Receptacle.                           |

### Connections

| Description | PNC770 | PNC772 |
|-------------|--------|--------|
| +EXE        | RED    | PIN A  |
| +SIG        | GREEN  | PIN B  |
| - SIG       | WHITE  | PIN C  |
| - EXE       | BLACK  | PIN D  |

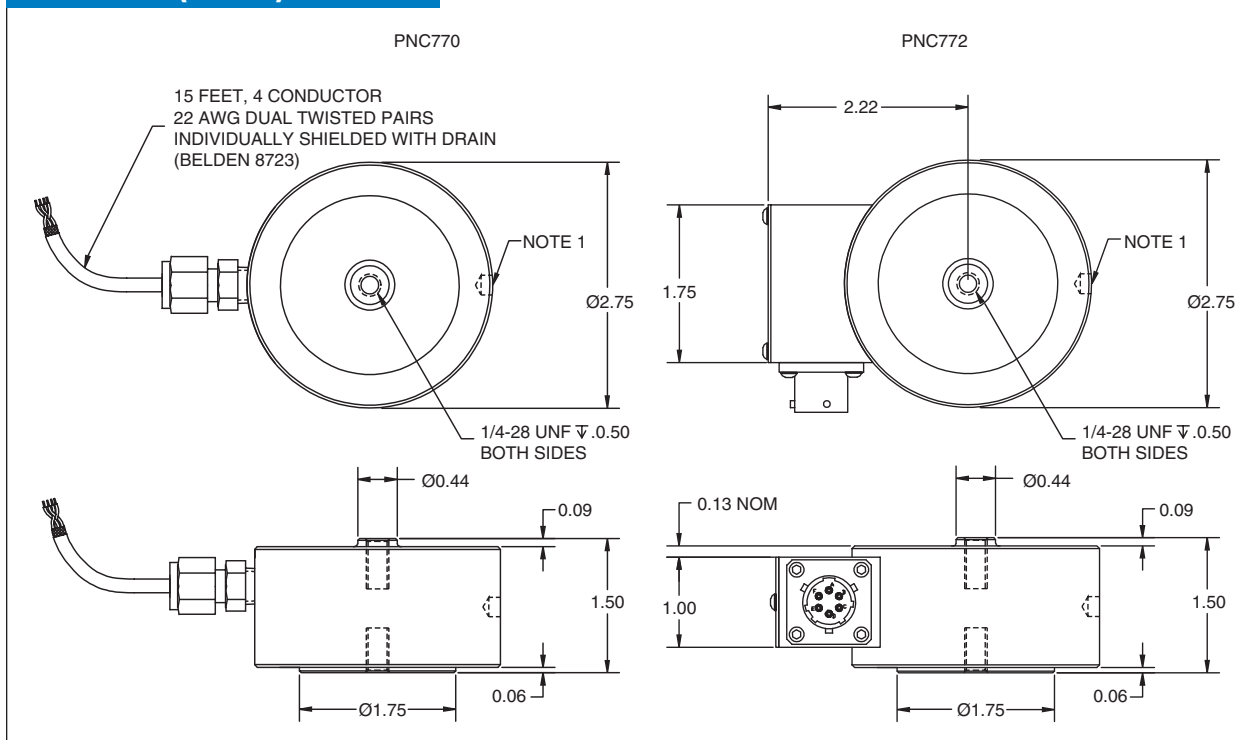
PNC770/2

**Your Application-Solution Source<sup>SM</sup>**

# Series PNC770/2 Specifications

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

## Dimensions (inches)



NOTE 1: Spanner wrench hole is 0.22 in diameter x 0.13 deep.

| Capacity (Lbs) | Max Static Overload (%FSO) | Max Shear Load (Lbs) | Max Bending Load (In-Lbs) | Max Torque Load (In-Lbs) | Deflection (Inches) | Ring Frequency (Hz) |
|----------------|----------------------------|----------------------|---------------------------|--------------------------|---------------------|---------------------|
| 25             | 150                        | 150                  | 150                       | 40                       | 0.003               | 2100                |
| 50             | 150                        | 150                  | 150                       | 40                       | 0.003               | 2600                |
| 100            | 150                        | 250                  | 180                       | 40                       | 0.003               | 4000                |
| 200            | 150                        | 250                  | 180                       | 40                       | 0.003               | 6000                |
| 300            | 150                        | 250                  | 180                       | 40                       | 0.003               | 7500                |

## Available Options

|                            |  |
|----------------------------|--|
| <b>Threads</b>             | Metric.  |
| <b>Calibration</b>         | Additional calibration points (in addition to standard points) available (Consult Factory).<br>Special and custom calibrations available (Consult Factory) |
| <b>Amplifiers</b>          | Integral or In-Line (Consult Factory).<br>• Analog (4-20 mA; $\pm 5$ Vdc; $\pm 10$ Vdc).<br>• Digital (RS-232; RS-485; CANbus; MODbus).                    |
| <b>Cable Length</b>        | Cable length specified.  |
| <b>Cable Connector</b>     | Add a connector to the end of the cable.<br>Consult factory for available connectors.  |
| <b>Shock and Vibration</b> | All Stellar PNC770 and PNC772 come standard with shock and vibration protection.   |
| <b>Custom Options</b>      | Other customer requested options welcome.  |



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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