

CNR960 Series

High Capacity/High Accuracy Tension and Compression Canister Load Cells

[Request a Quote](#)

Description

CNR960 Series tension/compression canister style load cells are designed specifically for high capacity and high accuracy test and measurement applications requiring long fatigue life combined with high resistance to the effects of extraneous bending and off-axis loading. The uniquely engineered CNR960 Series load cells have a minimum deflection resulting in fast frequency response. Constructed of electroless nickel plated alloy steel, all CNR960 Series load cells are manufactured to be shock and vibration resistant. Each unit is shipped with a 10 point calibration (5 points in both tension and compression) record traceable to NIST as standard.

Standard Features

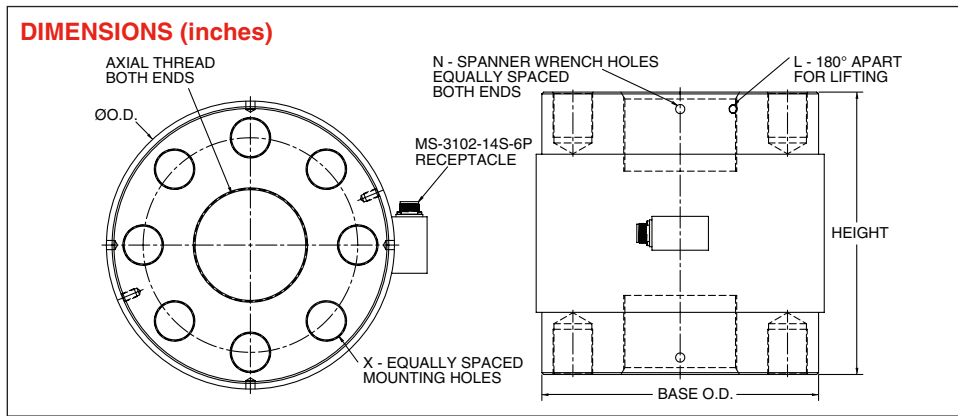
- Tension and Compression
- Load Ranges to 1 Million Pounds
- High Static Accuracy
- High Fatigue Life
- High Immunity to Off-Axis Loading
- Center Thread Mount or Circular Bolt Mount



Optional Features

- Dual Bridge Configurations
- Customer Specified Electrical Termination
- Special Calibrations
- Metric Threads
- Expanded Temperature Compensation Ranges

LORD DATA SHEET



Capacity (lbs)	Type	ØOD	Base OD	Axial Thread	Height	X	Mounting Holes	N (Each End)	Spanner Wrench Holes	L	Lifting Holes
25K, 50K 100K, 150K	A	6	5.5	2-12 UN-2B, 2.00 deep	7.0	6	3/4-10 UNC-2B, 1.25 deep Ø3.50 B.C. dia.	3	Ø0.38, 0.31 deep	0	n/a
150K, 200K 300K	B	7.5	7.0	3-12 UN-2B, 3.00 deep	10.0	8	1-8 UNC-2B, 1.50 deep Ø5.00 B.C. dia.	6	Ø0.41, 0.38 deep	0	n/a
500K, 800K 1000K	C	12.8	12.3	5-8 UN-2B, 3.50 deep	12.5	8	1 3/4 -12 UN-2B, 2.0 deep, Ø9.50 B.C. dia.	4	Ø0.41, 0.38 deep	2	3/8-16, UNC-2B, 0.65 deep
500K, 800K 1000K	D	12.8	12.3	5-8 UN-2B, 5.30 deep	16.0	8	1 3/4 -12 UN-2B, 2.0 deep, Ø9.50 B.C. dia.	4	Ø0.41, 0.38 deep	2	3/8-16, UNC-2B, 0.65 deep

PERFORMANCE

Standard Ranges

25K, 50K, 100K, 150K, 200K, 300K, 500K, 800K, 1000K lbf

Static Accuracy

Linearity: $\pm 0.20\%$ FSO
 Hysteresis: $\pm 0.20\%$ FSO
 Repeatability: $\pm 0.05\%$ FSO

Temperature Effect on Zero

$\pm 0.003\%$ FSO/°F

Temperature Effect on Span

$\pm 0.003\%$ Reading/°F

Zero Balance

$\pm 1\%$ FSO at 70°F

Output

2 mV/V

MECHANICAL CHARACTERISTICS

Standard Calibration

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

Important Note: Factory calibration based on customer's use. Specify if load cell will be mounted using mounting bolt holes or axial threaded hole.

Static Overload Without Damage

150% of nominal capacity

Material

Electroless nickel-plated alloy steel with painted carbon steel cover

Fatigue Life

> 100 million Fully Reversed Cycles at FSO

ENVIRONMENTAL CHARACTERISTICS

Compensated Temperature Range

70°F to 170°F

Optional expanded ranges available.

Operating Temperature Range

-65°F to +250°F

ELECTRICAL CHARACTERISTICS

Bridge Resistance

350 ohms (Types A, B)
 700 ohms (Types C, D)

Excitation

10 Vdc or Vac

Maximum Excitation

> 100 megohms at 50 Vdc at 70°F

Insulation Resistance

> 5000 megohms at 50 Vdc at 70°F

Electrical Termination

MS-3102-14S-6P Stainless Steel Electrical Receptacle or Equivalent

Optional electrical terminations, including integral cable, are available.

Wiring

A (+) Excitation

B (+) Signal

C (-) Signal

D (-) Excitation

E, F No Connection

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.

Information provided herein is based upon tests believed to be reliable. In as much as LORD Corporation has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, LORD Corporation does not guarantee the performance of the product or the results obtained from the use of the product or this information where the product has been repackaged by any third party, including but not limited to any product end-user. Nor does the company make any express or implied warranty of merchantability or fitness for a particular purpose concerning the effects or results of such use.

LORD Corporation

World Headquarters

111 Lord Drive
 Cary, NC 27511-7923
 USA

Customer Support Center (in United States & Canada)

+1 877 ASK LORD (275 5673)

www.lord.com

For a listing of our worldwide locations, visit LORD.com.

LORD Sensing Stellar Technology

237 Commerce Drive
 Amherst, NY 14228 • USA
 Tel: 716.250.1900 • Fax: 716.250.1909

www.stellartech.com

Email: stellar_sales@lord.com

ISO 9001/AS9100

LORD SENSING
 Stellar Technology