

ZX Series

Stainless Steel Tension Load Cells

- Capacities from 250-lb/113-kg to 20,000-lb/9,072-kg
- Threaded holes on each end for hanger assemblies (metric available)
- NTEP certified for use in commerce
- Welded stainless steel cup on most models (see back page)
- Integral shielded cable

These waterproof ZX series tension load cells are ideally suited for single or multiple load cell tension applications. When caustic or corrosive environments are encountered, the ZX series is ideal, since it is manufactured of stainless steel and offers the ultimate in protection. Each load cell comes with 30 ft / 9 m of multiconductor cable.



MECHANICAL DATA

| | |
|--|--|
| Rated Capacity, (R.C.) E _{max} | 113, 226, 453, 1134, 1360, 2268, 4536, 6804 & 9072 kg |
| Minimum Dead Load | 4.5 kg |
| Safe Load Limit | 150% R.C. |
| Ultimate Load | 300% R.C. |
| Deflection at R.C. | 0.2 to 0.6 mm |
| Spring Element Material | 17-4 stainless steel |
| Net Weight | 0.55 to 6.4 kg |

CERTIFICATE DATA

| | |
|---|--|
| Issuing Body | NTEP |
| Certificate Number | 92-192A2 |
| Accuracy Class | III/IIIL |
| Maximum Number of Load Cell Intervals, n _{max} | III - 5,000 IIIL - 10,000 |
| Single/Multiple | S/M |
| Minimum Load Cell Verification Interval V _{min} | III - 0.012, 0.024, 0.046, 0.12, 0.28, 0.46, 0.9, 1.36, & 1.8 kg IIIL - 0.009, 0.018, 0.036, 0.09, 0.11, 0.18, 0.36, 0.54 & 0.72 kg |

ELECTRICAL DATA

| | |
|-----------------------------------|----------------------------|
| Rated Output | 3 mV/V ± 0.1% |
| Excitation Voltage, Maximum | 20 VDC |
| Cable Length | 30 ft / 9 m |
| Terminal Resistance Excitation | 389 ± 20 ohms |
| Signal | 350 ± 5 ohms |
| Zero Load Output | ± 1% R.C. |
| Insulation Resistance | >5000 megohms at 50 VDC |

ENVIRONMENTAL DATA

| | |
|---|---|
| Temperature Compensation Range | -10 to +40 °C |
| Operating Temperature Range | -25 to +50 °C |
| Construction & Protection Code | CP-67 HU, IP67, (2500 - 20000) CP-55 HU (250 - 1000) |
| Barometric Pressure Effect on Zero Load Output | <1 v (min)/1kPa |

ZX Series Load Cells

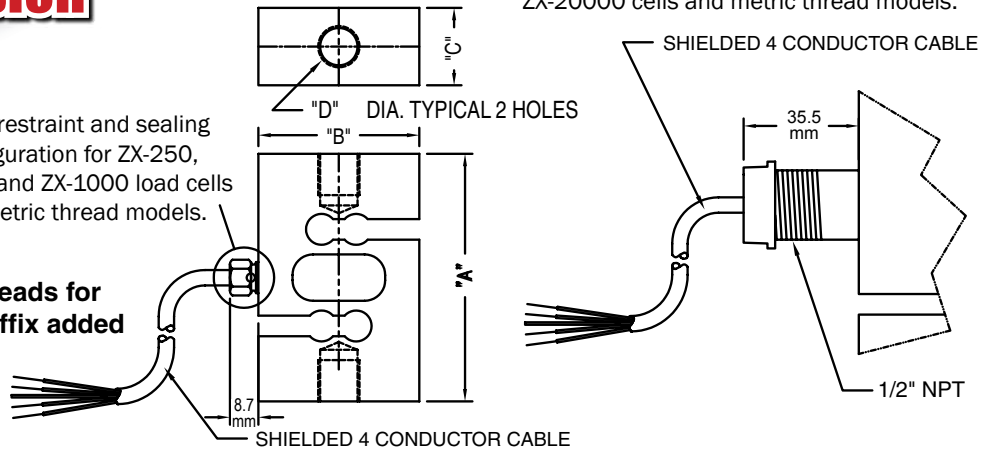


Stainless Steel
Waterproof Tension

Cable restraint and sealing configuration for ZX-2500, ZX-3000, ZX-5000, ZX-10000, ZX-15000 and ZX-20000 cells and metric thread models.

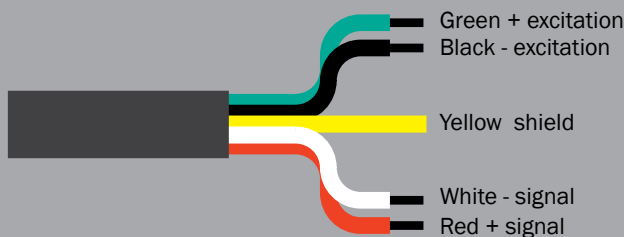
Cable restraint and sealing configuration for ZX-250, ZX-500, and ZX-1000 load cells and metric thread models.

Also available with metric threads for most sizes. Designated by M suffix added to model number.



| Model | Capacity | Finish | "A" | "B" | "C" | "D" | Metric Thread |
|----------|----------------------|----------------|-------------------|-------------------|------------------|--------------|---------------|
| ZX-250 | 250 lb / 113.4 kg | Potted sealant | 3 in / 76.2 mm | 1.9 in / 49.5 mm | .4 in / 11.9 mm | 1/4"-28 NF | M6 x 1 |
| ZX-500 | 500 lb / 226.8 kg | Potted sealant | 3 in / 76.2 mm | 1.9 in / 49.5 mm | .9 in / 23.8 mm | 1/2"-20 NF | M14 x 2 |
| ZX-1000 | 1000 lb / 453.6 kg | Potted sealant | 3 in / 76.2 mm | 1.9 in / 49.5 mm | .9 in / 23.8 mm | 1/2"-20 NF | M14 x 2 |
| ZX-2500 | 2500 lb / 1134 kg | Welded cup | 4.2 in / 107.9 mm | 2.9 in / 74.7 mm | 1.4 in / 36.8 mm | 1/2"-20 NF | M14 x 2 |
| ZX-3000 | 3000 lb / 1360.8 kg | Welded cup | 4.2 in / 107.9 mm | 2.9 in / 74.7 mm | 1.4 in / 36.8 mm | 1/2"-20 NF | M14 x 2 |
| ZX-5000 | 5000 lb / 2268 kg | Welded cup | 4.2 in / 107.9 mm | 2.9 in / 74.7 mm | 1.4 in / 36.8 mm | 3/4"-16 NF | M20 x 1.5 |
| ZX-10000 | 10000 lb / 4536 kg | Welded cup | 4.2 in / 107.9 mm | 3.4 in / 87.3 mm | 1.4 in / 36.8 mm | 3/4"-16 NF | M20 x 1.5 |
| ZX-15000 | 15000 lb / 6804 kg | Welded cup | 5.5 in / 139.7 mm | 4.0 in / 100.8 mm | 1.7 in / 43.4 mm | 1"-14 NF | Not available |
| ZX-20000 | 20000 lb / 9071.9 kg | Welded cup | 6.5 in / 165.1 mm | 4.4 in / 112.8 mm | 1.9 in / 49.2 mm | 1 1/4"-12 NF | M30 x 2 |

ELECTRICAL INFORMATION



State-of-the-Art Load Cell Manufacturing Facility ISO 9001 Quality Environment



CERTIFICATIONS

The Model ZX Series Load Cell meets or exceeds Class III/IIIL, 10,000 division accuracy requirements in accordance with NIST Handbook 44. A Certificate of Conformance (Number 92-192A2) has been issued under the National Type Evaluation Program (NTEP) of the National Conference on Weights and Measures.



VCAP CERTIFIED

Cardinal Scale has been formally audited and found to be fully compliant with the Verified Conformity Assessment Program (VCAP) administered by the National Type Evaluation Program (NTEP) of the National Conference on Weights and Measures (NCWM).

Cardinal Scale reserves the right to improve, enhance or modify features and specifications without prior notice. All registered trademarks are the property of their respective owners.

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