



661.11 Force Transducer

FEATURES

Bending Beam Design

- ▶ Units resist off-axis loads and moments for greater accuracy.

Dynamic Performance

- ▶ Low deflection and high stiffness give you better dynamic performance.

High Output

- ▶ Provides you with excellent resolution and reading accuracy.

High Degree Of Component Concentricity And Parallelism

- ▶ This feature gives you greater accuracy during your test setup.

Unique Wiring Technique

- ▶ A unique proprietary wiring technique used on the bridge allows for minimal susceptibility to stray magnetic fields.

MTS 661.11 Force Transducers are compact, fatigue-rated devices designed for measuring through-zero tension and compression loads of 50 to 100 lb (250 to 500 N).

These force transducers feature low deflection and a high degree of stiffness to give you better dynamic performance. They also feature a high degree of component concentricity and parallelism to give you greater accuracy during your test setup. Accuracy is also enhanced by a double bending beam design that features radially oriented beams. These beams compensate for off-axis loads and moments.

These MTS Force Transducers are easily mounted on, or interchanged with, existing force transducers on actuators, crossheads, platens or other test fixtures. Manufactured for

long, accurate service life, these units are designed using aircraft-quality steels, specially heat-treated to minimize distortion and ensure uniform hardness. There are no welded joints to wear or fatigue.

MTS uses a proprietary wiring technique to reduce electrical noise, then compensates each unit to ensure long-term stability.

You get excellent resolution and reading accuracy from these units because of high output which is symmetrical between tension and compression for accurate through-zero testing.

In addition to single bridge models, units available with dual bridges to give you the capability to continue working should you experience any failure during testing.



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SPECIFICATIONS

Temperature Effect On Zero

- ▶ 0.0015% of full scale/°F
- ▶ 0.0027% of full scale/°C

Temperature Effect On Sensitivity

- ▶ 0.0015% of readings/°F
- ▶ 0.0027% of readings/°C

Compensated Temperature Range

- ▶ +15°F (-9°C) to +115°F (+46°C)

Useable Temperature Range

- ▶ -65°F (-54°C) to +200°F (+93°C)

Bridge Resistance

- ▶ 700 Ω

Maximum Excitation Voltage

- ▶ 20 Vdc

Repeatability

- ▶ 0.02% of full scale

Output

- ▶ 2.0 mV per V

Deflection At Rated Force Capacity

- ▶ 0.003 inch (0.076 mm)

Number Of Bridges

- ▶ Single (Dual Optional)

Weight

- ▶ 1 lb (.45 kg)

Hysteresis

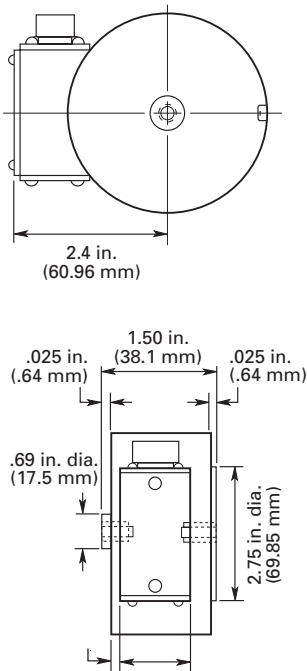
- ▶ 0.05% of full scale

Non-linearity

- ▶ 0.05% of full scale

Calibration

- ▶ Each force transducer ordered may be calibrated by MTS using our automated calibration system at our factory or on-site by MTS Field Service. In addition, the force transducer and associated conditioning electronics may be returned to MTS for repair and recalibration.



Model	Force Capacity	Thread Size
661.11A-05	50 lb	1/4"-28
661.11A-10	100 lb	1/4"-28
661.11B-05	250 N	M6 x 1 mm
661.11B-10	500 N	M6 x 1 mm