Low Profile™ Load Cells

World Leading Performance With Improved Linearity, Hysteresis, Creep & Thermal Specifications
Interface Inc. pioneered the first Low Profile™ load cell in 1969 and is the largest producer of them in the world.

We guarantee that our load cells will out perform our competitors...PERIOD.

**Interface Blue...**

**Setting the Standard in Force Measurement**

- **In-house CNC machining**
  - Total control of manufacture & quality standards

- **High quality threads**
  - 0.002” perpendicularity and
  - 0.003” concentricity

- **Moment compensated during production**
  - Reduces the effects of off-axis loads

- **Proprietary high output Strain Gages**
  - Matched to flexure for best performance
  - 8-16 Strain Gages per bridge

- **TRUE fatigue specification**
  - Fully reversed cycles through zero at full capacity

- **Temperature compensated Strain Gages**
  - No signal loss from compensation resistors
  - Measures temperature at the strain gage

- **Class leading performance**
  - Published Accuracy (Static Error Band) specification as low as ±0.02%FS and actual performance as low as ±0.01%FS on a regular basis
  - Will never be less accurate than published spec

- **Accurate machined base (0.0002” flatness)**
  - Provides excellent mounting surface

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**Introducing Interface’s Enhanced Low Profile™ Load Cell**
Other Performance Parameters That Set Us Apart From Our Competitors

- **Creep.** Interface is ±0.025%/20 minutes
- **Symmetry.** Interface is less than 0.1% in comparing included T&C calibration data
- **Minimum shift in zero balance.** Toggle from complete cycle of tension & compression
- **Parallelism.** 0.002” between top and bottom load surfaces
- **Concentricity.** 0.003” variance between top thread and base thread
- **Surface flatness.** Interface load cell and base maintains 0.0002” flatness

A 20% improvement in performance based on over 2 years of extensive engineering development

Improved linearity & hysteresis • Improved creep • Improved thermal performance

UNPARALLELED RELIABILITY

www.interfaceforce.com/lowprofile
Proprietary Strain Gages

- Higher output
- Higher signal to noise ratio
- Higher resolution
- Superior fatigue life

**Temperature Effects**

- Industry leading temperature performance (0.0004-0.0008%RO/°F)
- Hot & cold temperature compensation to reduce thermal effects
- We test and adjust each sensor at each temperature extreme
- Multiple runs in temperature chamber to validate adjusted final accuracy

**Calibration**

- Every Low Profile™ load cell is individually calibrated in tension and compression with no additional charge
- Allows for the comparison of rated output in tension to the rated output in compression
- We do system calibrations of most load cell brands
Interface Moment Compensation

• Every Low Profile™ load cell is mechanically compensated for moment loads
• Minimizes effect of eccentric loading and installation orientation
• Maximizes the operating life and minimizes the error
• Most load cell manufacturers do not compensate or have a specification for eccentric load sensitivity

Options available for a variety of applications

• Fatigue Rated
• Internally Amplified
• Axial Torsion
• Multi-Axis
• 25 lbf to 2 million lbf
• 2 Wire Amp
• Flange Mount
• High Temperature
• IP67
• Intrinsically Safe
• Hermetically Sealed
• Calibration Grade
• Dual Range
• Custom Designs
• Overload Protection
• Adapters - Male/Female
• Vacuum Rated
• Cables

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Interface Low Profile™ Load Cells

**1000 Fatigue Rated**
- 250 lbf to 100K lbf
- 1.25 kN to 450 kN
- T&C

**1000 Fatigue Rated, High-Capacity**
- 135K lbf to 1,000K lbf
- 600 kN to 4,500 kN
- T&C

**1100 Ultra Precision, Very High Accuracy**
- 300 lbf to 200K lbf
- 1.5 kN to 900 kN
- T&C

**1101 Ultra Precision, Compression Only**
- 1K lbf to 50K lbf
- 5 kN to 250 kN
- T&C

**1200 Precision**
- 300 lbf to 200K lbf
- 1.5 kN to 900 kN
- T&C

**1200 Precision, High Capacity**
- 270K lbf to 2,000K lbf
- 1200 kN to 9,000 kN
- T&C

**1200 Internal Amplifier**
- 300 lbf to 200K lbf
- 1.5 kN to 900 kN
- T&C

**1200 Flange Mount**
- 50 kN to 3,300 kN
- T&C

**1201 Precision, Compression Only**
- 1K lbf to 400K lbf
- 5 kN to 1,800 kN
- T&C

**1331 Compact, Compression Only**
- 100K lbf
- 450 kN

**1500 Compact, Low Capacity**
- 25 lbf to 300 lbf
- 125 N to 1,500 N
- T&C

**1600 Gold Standard® Calibration**
- 500 lbf to 200K lbf
- 2.2 kN to 900 kN
- T&C

**1601 Gold Standard® Compression Only Calibration**
- 1K lbf to 100K lbf
- 4.5 kN to 450 kN

**1606 Gold Standard® Low Capacity Calibration**
- 50 lbf to 300 lbf
- 0.25 kN to 1.50 kN
- T&C

**1700 Flange Mount**
- 550 lbf to 14K lbf
- 2.5 kN to 63 kN
- T&C

Interface
ADVANCED FORCE MEASUREMENT

800-947-5598
1800 Platinum Standard®
Calibration, Integral Stud
1.1K lbf to 110K lbf
5 kN to 500 kN

2101 Dual Range
5/1K to 270/100K lbf
25/5kN to 1200/450kN

2400 Stainless Steel
100 lbf to 300K lbf

2451 & 2461 Stainless Steel,
Compression Only
50K lbf to 200K lbf

2404 Stainless Steel
2-Wire, 4-20 mA
50 lbf to 20K lbf

3200 Precision Hermetic
Stainless Steel
5K lbf to 270K lbf

3201 Stainless Steel
Compression Only
5K lbf to 200K lbf

3331 Amplified Stainless Steel
Compression Only
100K lbf

3400 Intrinsically Safe
ATEX Approved
20K lbf to 100K lbf

BPL Ultra Low Height (.88”)
Compression Only
50 lbf to 500 lbf
250 N to 2,500 N

A4600 Tank Weighing
Stainless Steel
2.5 lbf to 50K lbf

1216 Axial Torsion
250 lbf / 125 lb-in
to 2K lbf / 1K lb-in

1516 Axial Torsion
100 lbf / 50 lb-in

2816 Axial Torsion
3.3K lbf / 2K lb-in
to 15K lbf / 7.5K lb-in
16 kN / 220 Nm
to 63 kN / 900 Nm

5200 Three Axis
Fz, Mx, My
1K lbf to 100K lbf

*T&C = Tension & Compression

www.interfaceforce.com/lowprofile
Our Interface Three-Building Campus

- Over $7 million in inventory
- More than 150 items guaranteed in stock
- Delivery capabilities beyond the competition

We Recalibrate ALL Manufacturers’ Load Cells

- Hydraulic systems use a reversing actuator to apply tension and compression in the same setup
- Industry’s most complete and accurate calibration certificate
- Quick turnaround – consistent 3 to 5 day turnaround (2-day expedited service available)
- 50 grams to one million lbf
- A2LA Accredited laboratory
- 18 fully automated calibration systems

ACCREDITED
Cert #1991.01
Made in the USA

800-947-5598  www.interfaceforce.com/lowprofile1