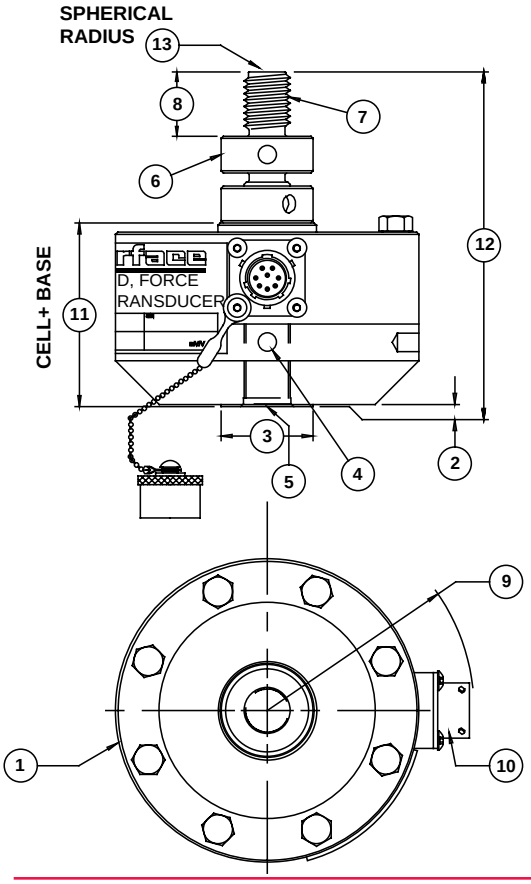
# Model 1600 Gold Standard™ Calibration Series Universal

**Why INTERFACE 1600 series load cells are the best in class:**

- **Tension and compression in one unit**
- **.005% nonrepeatability**
- **.01% creep**
- **High output – to 4mV/V**
- **High precision base installed**
- **3 run NIST traceable calibration**
- **Factory installed Calibration Adapter**
- **Eccentric load compensated**
- **.0008%/°F temp effect on output**
- **4% lower load limit per ASTM E74**


## DIMENSIONS

| See Drawing | MODEL 1610 | | MODEL 1620 | | MODEL 1632 | |
|---|---|---|---|---|---|---|
| | CAPACITY (lbf) | | | | | |
| | U.S. (lbf) | Metric (kN) | U.S. (lbf) | Metric (kN) | U.S. (lbf) | Metric (kN) |
| | 500, 1K, 2K, 5K,10K | 2.2, 4.5, 9, 22, 45 | 25K ,50K | 110, 225 | 100K | 450 |
| | inch | mm | inch | mm | inch | mm |
| ① | 4.13 | 104.8 | 6.06 | 153.9 | 8.00 | 203.2 |
| ② | 0.03 | 0.80 | 0.03 | 0.80 | 0.03 | 0.80 |
| ③ | 1.25 | 31.8 | 2.25 | 57.2 | 3.00 | 76.2 |
| ④ | 0.25 | 6.40 | 0.31 | 7.90 | 0.31 | 7.90 |
| | 0.29 deep | 7.4 deep | 0.31 deep | 7.9 deep | 0.31 deep | 7.9 deep |
| ⑤ | 5/8-18 UNF-3B | M16x2-4H | 1 1/4-12 UNF-3B | M33x2-4H | 1 3/4-12 UNF-3B | M42x2-4H |
| | 0.87 deep | 22.1 deep | 1.50 deep | 38.1 deep | 1.75 deep | 44.45 deep |
| ⑥ | CA-101 | CA-201 | CA-102 | CA-202 | CA103 | CA-203 |
| ⑦ | 5/8-18 UNF-3A | M16x2-4H | 1 1/4-12 UNF-3A | M33x2-4H | 1 3/4-12 UNF-3A | M42x2-4H |
| ⑧ | 0.75 | 19.1 | 1.50 | 38.1 | 2.00 | 50.8 |
| ⑨ | 2.81 | 71.4 | 3.50 | 88.9 | 4.50 | 114.3 |
| ⑩ | PT02E-12-8P | | PT02E-12-8P | | PT02E-12-8P | |
| ⑪ | 2.50 | 63.5 | 3.50 | 88.9 | 4.50 | 114.3 |
| ⑫ | 4.38 ±.12 | 111.3 ±3.1 | 6.38 ± .12 | 162.1 ±.3.1 | 8.62 ±.12 | 218.9 ±3.1 |
| ⑬ | 6.00 | 152.0 | 6.00 | 152.0 | 12.0 | 305.0 |

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15-512
04/02

## SPECIFICATIONS

| PARAMETERS | MODEL 1610 | 1610 | 1610 | 1620 | 1632 |
|---|---|---|---|---|---|
| | CAPACITY (lbf) | | | | |
| U.S. Models (lbf) | 500 | 1K, 2K | 5K, 10K | 25K, 50K | 100K |
| Metric Models (kN) | 2.2 | 4.5, 9 | 22, 45 | 110, 225 | 450 |
| **ACCURACY – (MAX ERROR)** | | | | | |
| Static Error Band–% FS | ± 0.02 | ± 0.02 | ± 0.025 | ± 0.03 | ± 0.05 |
| Nonlinearity–% FS | ± 0.03 | ± 0.03 | ± 0.04 | ± 0.04 | ± 0.05 |
| Hysteresis–% FS | ± 0.02 | ± 0.02 | ± 0.04 | ± 0.05 | ± 0.05 |
| Nonrepeatability–% RO | ± 0.005 | ± 0.005 | ± 0.005 | ± 0.005 | ± 0.005 |
| Creep, 20 min.–% | ± 0.01 | ± 0.01 | ± 0.01 | ± 0.01 | ± 0.01 |
| Side Load Sensitivity–% | ± 0.1 | ± 0.1 | ± 0.1 | ± 0.1 | ± 0.1 |
| Eccentric Load Sensitivity–%/in | ± 0.1 | ± 0.1 | ± 0.1 | ± 0.1 | ± 0.1 |
| Lower Load Limit–% Cap. (ASTM E74 CLASS A) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| **TEMPERATURE** | | | | | |
| Compensated Range–˚F | 15 to115 | 15 to 115 | 15 to 115 | 15 to 115 | 15 to 115 |
| Compensated Range–˚C | -10 to 45 | -10 to 45 | -10 to 45 | -10 to 45 | -10 to 45 |
| Operating Range–˚F | -65 to 200 | -65 to 200 | -65 to 200 | -65 to 200 | -65 to 200 |
| Operating Range–˚C | -55 to 90 | -55 to 90 | -55 to 90 | -55 to 90 | -55 to 90 |
| Effect on Zero–%RO/˚F – MAX | ± 0.0004 | ± 0.0004 | ± 0.0004 | ± 0.0004 | ± 0.0004 |
| Effect on Output–%/˚F – MAX | ± 0.0008 | ± 0.0008 | ± 0.0008 | ± 0.0008 | ± 0.0008 |
| **ELECTRICAL** | | | | | |
| Rated Output–mV/V (Nominal) | 2.0 | 2.0 | 4.0 | 4.0 | 4.0 |
| Excitation Voltage–VDC – MAX | 20 | 20 | 20 | 20 | 20 |
| Bridge Resistance–Ohm (Nominal) | 350 | 350 | 350 | 350 | 350 |
| Zero Balance–% RO | ± 1.0 | ± 1.0 | ± 1.0 | ± 1.0 | ± 1.0 |
| Insulation Resistance–Megohm | 5000 | 5000 | 5000 | 5000 | 5000 |
| **MECHANICAL** | | | | | |
| Safe Overload–% CAP | ± 150 | ± 150 | ± 150 | ± 150 | ± 150 |
| Deflection @ RO–inch | 0.002 | 0.002 | 0.004 | 0.004 | 0.006 |
| Weight–lb | 3.8 | 3.8 | 8.0 | 23.5 | 58 |
| Connector | PT02E-12-8P | PT02E-12-8P | PT02E-12-8P | PT02E-12-8P | PT02E-12-8P |
| Calibration | T & C | T & C | T & C | T & C | T & C |

## OPTIONS*

Compression overload protection
Multiple bridge
Standardized output
ASTM E74 calibration
Connector protection
See Low Profile Options Catalog Page 89

## ACCESSORIES*

Precision mV/V transfer standard
Instrument cable assemblies
Signal conditioning boards
Calibration software

* *See appendix for more technical information*

## STANDARD CONFIGURATIONS

• PT02E-12-8 Connector (16xxAJH-nn)