

# Model 1800 Platinum Standard™ Calibration Load Cell

- Handcrafted excellence for the most demanding calibration requirements
- Tension and compression in one unit
- .005% nonrepeatability
- 2% lower load limit per ASTM E74
- High precision base installed
- ASTM E74 calibration standard
- Internal electronic ID
- Eccentric load compensated
- .0008%/°F temp. effect on output
- Connector protector standard

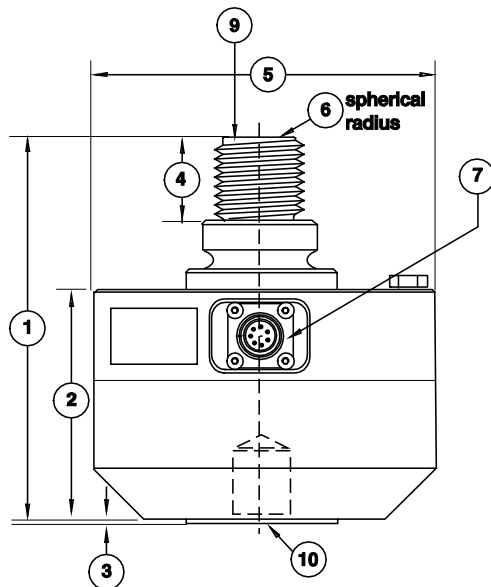
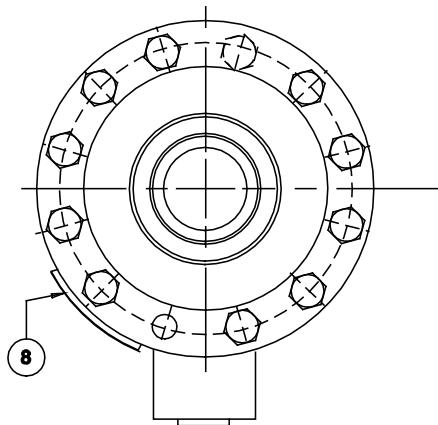


## SPECIFICATIONS

| PARAMETERS                                   | MODEL       |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
|  | 1810        | 1810        | 1810        | 1820        | 1830        |
|  | CAPACITY    |             |             |             |             |
| U.S. Models (lbf)                            | 1.1K        | 2.2K, 3.3K  | 5.5K        | 11K, 22K    | 55K         |
| Metric Models (kN)                           | 5           | 10, 15      | 25          | 50, 100     | 250         |
| <b>ACCURACY – (MAX ERROR)</b>                |             |             |             |             |             |
| Static Error Band-% FS                       | ±0.020      | ±0.020      | ±0.020      | ±0.020      | ±0.025      |
| Nonlinearity-% FS                            | ±0.020      | ±0.020      | ±0.020      | ±0.020      | ±0.020      |
| Hysteresis-% FS                              | ±0.020      | ±0.025      | ±0.025      | ±0.025      | ±0.030      |
| Nonrepeatability-% RO                        | ±0.005      | ±0.005      | ±0.005      | ±0.005      | ±0.005      |
| Creep, in 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              | ±0.05       | ±0.05       | ±0.05       | ±0.05       | ±0.05       |
| Lower Load Limit - % Cap. (ASTM E74 Class A) | 2.0         | 2.0         | 2.0         | 2.0         | 2.0         |
| <b>TEMPERATURE</b>                           |             |             |             |             |             |
| Compensated Range-°F                         | 15 to 115   | 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-%RO/°F – MAX                | ±0.0008     | ±0.0008     | ±0.0008     | ±0.0008     | ±0.0008     |
| <b>ELECTRICAL</b>                            |             |             |             |             |             |
| Rated Output-mV/V (Nominal)                  | 2.0         | 2.0         | 2.0         | 2.0         | 2.0         |
| Excitation Voltage-VDC MAX                   | 20          | 20          | 20          | 20          | 20          |
| Bridge Resistance-Ohm (Nominal)              | 700         | 700         | 700         | 700         | 700         |
| Zero Balance-% RO                            | ±1.0        | ±1.0        | ±1.0        | ±1.0        | ±1.0        |
| Insulation Resistance-Megohm                 | 5000        | 5000        | 5000        | 5000        | 5000        |
| <b>MECHANICAL</b>                            |             |             |             |             |             |
| Safe Overload-% CAP                          | ±150        | ±300        | ±300        | ±300        | ±300        |
| Deflection @ RO-inch                         | 0.002       | 0.002       | 0.002       | 0.002       | 0.004       |
| Weight-lb                                    | 3.8         | 9           | 9           | 25          | 62          |
| 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       |

## DIMENSIONS

| See Drawing | MODEL                          |               |                                  |              |                                  |                      |
|-------------|--------------------------------|---------------|----------------------------------|--------------|----------------------------------|----------------------|
|             | 1810                           |               | 1820                             |              | 1830                             |                      |
|             | CAPACITY                       |               |                                  |              |                                  |                      |
|             | U.S. (lbf)                     | Metric (kN)   | U.S. (lbf)                       | Metric (kN)  | U.S. (lbf)                       | Metric (kN)          |
|             | 1.1K, 2.2K, 3.3K, 5.5K         | 5, 10, 15, 25 | 11K, 22K                         | 50, 100      | 55K                              | 250                  |
|             | inch                           | mm            | inch                             | mm           | inch                             | mm                   |
| (1)         | 4.65                           | 118.1         | 6.85                             | 174.0        | 8.26                             | 209.7                |
| (2)         | 3.28                           | 83.3          | 4.13                             | 104.9        | 5.00                             | 127.0                |
| (3)         | 0.03                           | 0.80          | 0.03                             | 0.80         | 0.03                             | 0.80                 |
| (4)         | 0.75                           | 19.1          | 1.50                             | 38.1         | 1.88                             | 47.8                 |
| (5)         | 4.13                           | 104.9         | 6.06                             | 154.0        | 8.00                             | 203.2                |
| (6)         | 6.00                           | 152.4         | 6.00                             | 152.4        | 8.00                             | 203.2                |
| (7)         | PT02E-12-8P                    |               |                                  |              |                                  |                      |
| (8)         | Identification Label           |               |                                  |              |                                  |                      |
| (9)         | 5/8 - 18 UNF - 3A              | M16 x 2 - 4h  | 1 1/4 - 12 UNF - 3A              | M33 x 2 - 4h | 1 3/4 - 12 UNF - 3A              | M42 x 2 - 4h         |
| (10)        | 5/8 - 18 UNF - 3B<br>0.75 deep | M16 x 2 - 4H  | 1 1/4 - 12 UNF - 3B<br>1.25 deep | M33 x 2 - 4H | 1 3/4 - 12 UNF - 3B<br>2.00 deep | M42 x 2 - 4H<br>50.8 |



## ACCESSORIES

- Precision mV/V Transfer Standard
- Instrument Cable Assemblies
- Signal Conditioning Boards
- Calibration Software

## STANDARD CONFIGURATIONS

PT02E-12-8P Connector