

## 1200 STANDARD HIGH CAPACITY LOAD CELL (U.S. & METRIC)

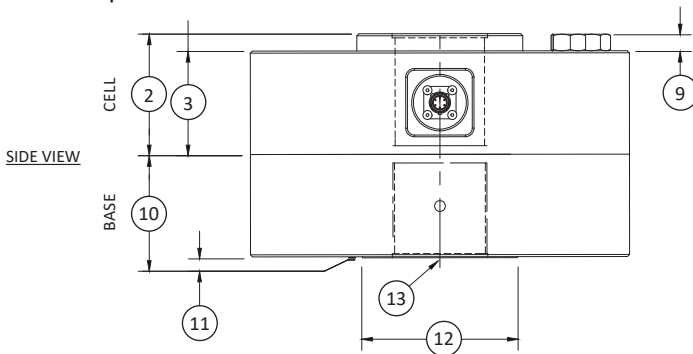
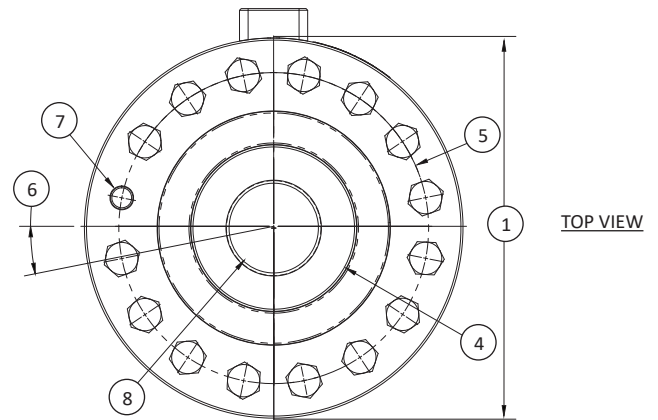
### FEATURES & BENEFITS

- Capacities from 200K to 2000K lbf (900 to 9000 kN)
- Proprietary Interface temperature
- Compensated strain gages
- Performance to 0.07%
- High output – to 4 mV/V
- Eccentric load compensated
- 0.0008%/°F (0.0015%/°C) temp. effect on output
- Low deflection
- Shunt calibration
- Barometric compensation
- Tension and compression
- Compact size

### STANDARD CONFIGURATION



Model 1240ACK-200K (shown)



### DIMENSIONS

| See Drawing | MODEL                     |                         |                           |                         |                          |                          |                          |                         |                           |                         |                           |                         |
|-------------|---------------------------|-------------------------|---------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|
|             | 1240                      |                         | 1244                      |                         | 1252                     |                          | 1260                     |                         | 1280                      |                         | 1290                      |                         |
|             | CAPACITY                  |                         |                           |                         |                          |                          |                          |                         |                           |                         |                           |                         |
|             | U.S. (lbf)                | Metric (kN)             | U.S. (lbf)                | Metric (kN)             | U.S. (lbf)               | Metric (kN)              | U.S. (lbf)               | Metric (kN)             | U.S. (lbf)                | Metric (kN)             | U.S. (lbf)                | Metric (kN)             |
|             | 200K                      | 900                     | 270K                      | 1200                    | 400K                     | 1800                     | 600K                     | 2700                    | 1000K                     | 4500                    | 2000K                     | 9000                    |
|             | in                        | mm                      | in                        | mm                      | in                       | mm                       | in                       | mm                      | in                        | mm                      | in                        | mm                      |
| (1)         | Ø11.0                     | Ø279.0                  | Ø11.0                     | Ø279.0                  | Ø12.0                    | Ø304.8                   | Ø15.5                    | Ø393.7                  | Ø20.50                    | Ø520.7                  | Ø26.00                    | Ø660.4                  |
| (2)         | 3.50                      | 88.9                    | 4.00                      | 101.6                   | 4.50                     | 114.3                    | 5.50                     | 139.7                   | 6.25                      | 158.8                   | 7.75                      | 196.9                   |
| (3)         | 3.00                      | 76.2                    | 3.25                      | 82.6                    | 4.25                     | 108.0                    | 5.00                     | 127.0                   | 6.00                      | 152.4                   | 7.50                      | 190.5                   |
| (4)         | Ø4.81                     | Ø122.2                  | Ø4.81                     | Ø122.2                  | Ø6.18                    | Ø156.8                   | Ø7.73                    | Ø196.3                  | Ø10.55                    | Ø267.9                  | Ø13.79                    | Ø350.3                  |
| (5)         | Ø9.00                     | Ø228.6                  | Ø8.75                     | Ø222.2                  | Ø9.875                   | Ø250.83                  | Ø12.68                   | Ø322.1                  | Ø16.5                     | Ø419.1                  | Ø20.50                    | Ø520.7                  |
| (6)         | 11.25°                    | 11.25°                  | 11.25°                    | 11.25°                  | 9.00°                    | 9.00°                    | 7.50°                    | 7.50°                   | 6.43°                     | 6.43°                   | 5.63°                     | 5.63°                   |
| (7)         | Ø0.65                     | Ø16.5                   | Ø0.79                     | 20.1                    | Ø0.827                   | Ø21.01                   | Ø0.94                    | Ø23.9                   | Ø1.06                     | Ø27.0                   | Ø1.31                     | Ø33.3                   |
|             | 16 places                 |                         | 16 places                 |                         | 20 places                |                          | 24 places                |                         | 28 places                 |                         | 32 places                 |                         |
| (8)         | 2 ¼-8<br>UN-3B<br>↓ 2.75  | M72 X<br>2-4H<br>↓ 70   | 2 ¼-8<br>UN-3B<br>↓ 3.75  | M72 X<br>2-4H<br>↓ 95.3 | 3 ½-8<br>UN-3B<br>↓ 4.13 | M90 X<br>3-4H<br>↓ 104.9 | 4 ¼-8<br>UN-3B<br>↓ 4.25 | M120 X<br>4-4H<br>↓ 108 | 6.00-8<br>UN-3B<br>↓ 5.63 | M150 X<br>4-4H<br>↓ 143 | 8.00-8<br>UN-3B<br>↓ 7.00 | M200 X<br>4-4H<br>↓ 178 |
| (9)         | 0.50                      | 12.7                    | 0.58                      | 14.7                    | 0.59                     | 20.0                     | 0.69                     | 12.5                    | 1.00                      | 25.4                    | 1.25                      | 31.3                    |
| (10)        | 3.00                      | 76.2                    | 4.00                      | 101.6                   | 4.50                     | 114.3                    | 5.00                     | 127.0                   | 7.00                      | 177.8                   | 9.00                      | 228.6                   |
| (11)        | 0.03                      | 0.80                    | 0.03                      | 0.80                    | 0.03                     | 0.80                     | 0.03                     | 0.80                    | 0.10                      | 2.5                     | 0.10                      | 2.5                     |
| (12)        | Ø4.50                     | Ø114.3                  | Ø4.50                     | Ø114.3                  | Ø6.00                    | Ø152.4                   | Ø7.75                    | Ø196.9                  | Ø10.55                    | Ø267.9                  | Ø14.00                    | Ø355.6                  |
| (13)        | 2 ¼-8<br>UNF-3B<br>↓ 2.75 | M72 X<br>2-4H<br>↓ 69.8 | 2 ¼-8<br>UNF-3B<br>↓ 2.75 | M72 X<br>2-4H<br>↓ 69.8 | 3 ½-8<br>UN-3B<br>↓ 3.75 | M90 X<br>3-4H<br>↓ 95.3  | 4 ¼-8<br>UN-3B<br>↓ 4.25 | M120 X<br>4-4H<br>↓ 108 | 6.00-8<br>UN-3B<br>↓ 6.38 | M150 X<br>4-4H<br>↓ 162 | 8.00-8<br>UN-3B<br>↓ 7.25 | M200 X<br>4-4H<br>↓ 184 |

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### SPECIFICATIONS

| PARAMETERS                          |             | MODEL                 |             |             |             |             |             |
|-------------------------------------|-------------|-----------------------|-------------|-------------|-------------|-------------|-------------|
|                                     |             | 1240                  | 1244        | 1252        | 1260        | 1280        | 1290        |
|                                     |             | CAPACITY              |             |             |             |             |             |
| Measuring Range                     | U.S. (lbf)  | 200K                  | 270K        | 400K        | 600K        | 1000K       | 2000K       |
|                                     | Metric (kN) | 900                   | 1200        | 1800        | 2700        | 4500        | 9000        |
| <b>ACCURACY – (MAX ERROR)</b>       |             |                       |             |             |             |             |             |
| Static Error Band – %FS             |             | ±0.07                 | ±0.07       | ±0.10       | ±0.12       | ±0.15       | ±0.20       |
| Nonlinearity – %FS                  |             | ±0.07                 | ±0.08       | ±0.10       | ±0.12       | ±0.15       | ±0.20       |
| Hysteresis – %FS                    |             | ±0.07                 | ±0.08       | ±0.10       | ±0.12       | ±0.15       | ±0.20       |
| Nonrepeatability – %RO              |             | ±0.01                 | ±0.02       | ±0.02       | ±0.02       | ±0.02       | ±0.02       |
| Creep, in 20 min – %                |             | ±0.025                | ±0.025      | ±0.025      | ±0.025      | ±0.025      | ±0.025      |
| Side Load Sensitivity – %           |             | ±0.25                 | ±0.25       | ±0.25       | ±0.25       | ±0.25       | ±0.25       |
| Eccentric Load Sensitivity – % / in |             | ±0.25                 | ±0.25       | ±0.25       | ±0.25       | ±0.25       | ±0.50       |
| <b>TEMPERATURE</b>                  |             |                       |             |             |             |             |             |
| Compensated Range                   | °F          | +15 to +115           | +15 to +115 | +15 to +115 | +15 to +115 | +15 to +115 | +15 to +115 |
|                                     | °C          | -10 to +45            | -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 | -65 to +200 |
|                                     | °C          | -55 to +90            | -55 to +90  | -55 to +90  | -55 to +90  | -55 to +90  | -55 to +90  |
| Effect on Zero – %RO / deg          | °F          | ±0.0008               | ±0.0008     | ±0.0008     | ±0.0008     | ±0.0008     | ±0.0008     |
|                                     | °C          | ±0.0015               | ±0.0015     | ±0.0015     | ±0.0015     | ±0.0015     | ±0.0015     |
| Effect on Output – % / deg          | °F          | ±0.0008               | ±0.0008     | ±0.0008     | ±0.0008     | ±0.0008     | ±0.0008     |
|                                     | °C          | ±0.0015               | ±0.0015     | ±0.0015     | ±0.0015     | ±0.0015     | ±0.0015     |
| <b>ELECTRICAL</b>                   |             |                       |             |             |             |             |             |
| Rated Output – mV/V (Nominal)       |             | 4.0                   | 4.0         | 4.0         | 4.0         | 4.0         | 4.0**       |
| Excitation Voltage – VDC MAX        |             | 20                    | 20          | 20          | 20          | 20          | 20          |
| Bridge Resistance – Ohm (Nominal)   |             | 350                   | 350         | 350         | 350         | 350         | 350         |
| Zero Balance – %RO                  |             | ±1.0                  | ±1.0        | ±1.0        | ±1.0        | ±1.0        | ±1.0        |
| Insulation Resistance – Megohm      |             | 5000                  | 5000        | 5000        | 5000        | 5000        | 5000        |
| <b>MECHANICAL</b>                   |             |                       |             |             |             |             |             |
| Safe Overload – %CAP                |             | ±150                  | ±150        | ±150        | ±150        | ±150        | ±150        |
| Deflection @ RO – w/Base            | in          | 0.012                 | 0.006       | 0.007       | 0.008       | 0.008       | 0.010       |
|                                     | mm          | 0.30                  | 0.15        | 0.18        | 0.2         | 0.2         | 0.25        |
| Optional Base – P/N (Metric)        |             | B105 (M)              | B116 (M)    | B121 (M)    | B122 (M)    | B123 (M)    | B125 (M)    |
| Natural Frequency – kHz             |             | 4.9                   | 5.0         | 5.5         | 5.5         | 5.5         | 5.5         |
| Weight                              | lbs         | 68                    | 70          | 100         | 200         | 450         | 860         |
|                                     | kg          | 30.9                  | 31.8        | 45          | 90          | 205         | 390         |
| Calibration                         |             | Tension & Compression |             |             |             |             |             |
| Material                            |             | Alloy Steel           |             |             |             |             |             |

\*\*Calibrated to 1000K only

### OPTIONS

- Base (recommended)
- Multiple bridge
- Standardized output
- Transducer Electronic Data Sheet (TEDS)
- Special temperature range

International System of Units (SI) dimensions and capacities are provided for conversion only. Standard products have U.S. capacities and dimensions. SI capacities available upon special request and at an additional cost.

### CONNECTOR OPTIONS

- PT02E-10-6P Bayonet Connector
- PC04E-10-6P Screw-Type Connector

### ACCESSORIES

- Mating connector
- Mating cable
- Instrumentation
- Loading hardware