

## 1600 GOLD STANDARD™ CALIBRATION LOAD CELL (US & METRIC)

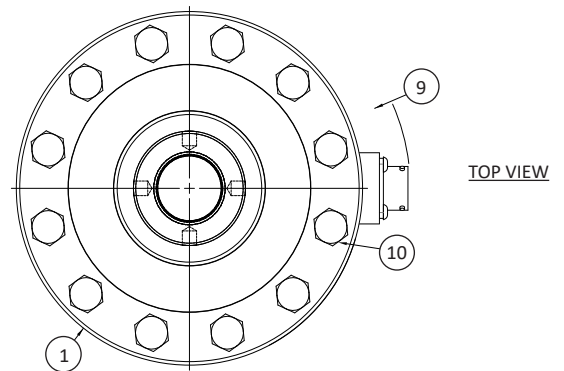
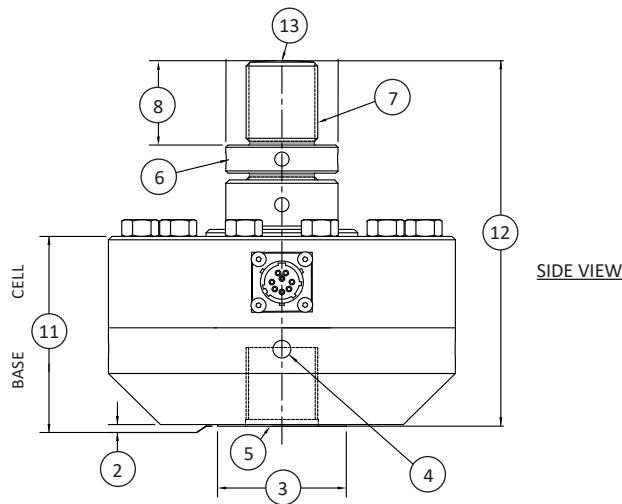
### FEATURES & BENEFITS

- Capacities from 500 to 200K lbf (2.2 to 900 kN)
- Tension and compression in one unit
- 0.01% creep
- 0.0008%/°F temp. effect on output
- High output – to 4 mV/V
- Eccentric load compensated
- High precision base installed
- Factory installed calibration adapter
- 3 run NIST traceable ASTM E74 calibration
- 4% lower load limit per ASTM E74

### STANDARD CONFIGURATION



Model 1620AJH-50K (shown)



SIDE VIEW

TOP VIEW

### DIMENSIONS

See Drawing	MODEL							
	1610		1620		1632		1640	
	U.S. (lbf)	Metric (kN)	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	200K	900
in	mm	in	mm	in	mm	in	mm	
(1)	4.13	104.7	6.06	153.9	8.00	203.1	11.00	279.3
(2)	0.03	0.80	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	4.50	114.3
(4)	∅ 0.25 ↓ 0.29	∅ 6.4 ↓ 7.4	∅ 0.31 ↓ 0.31	∅ 7.9 ↓ 7.9	∅ 0.31 ↓ 0.31	∅ 7.9 ↓ 7.9	∅ 0.31 ↓ 0.31	∅ 7.9 ↓ 7.9
(5)	⅜-18 UNF-3B ↓ 0.87	M16x2-4H ↓ 22.1	1 ¼-12 UNF-3B ↓ 1.40	M33x2-4H ↓ 35.6	1 ¼-12 UN-3B ↓ 1.75	M42x2-4H ↓ 44.4	2 ⅜-8 UN-3B ↓ 2.75	M72x2-4H ↓ 69.8
(6)	CA-101	CA-201	CA-102	CA-202	CA-103	CA-203	Integral	
(7)	⅜-18 UNF-3A	M16x2-4G	1 ¼-12 UNF-3A	M33x2-4G	1 ¼-12 UN-3A	M42x2-4G	2 ⅜-8 UN-3A	M72x2-4H
(8)	0.75	19.0	1.50	38.1	2.00	50.8	2.75	69.8
(9)	2.81	71.4	3.52	89.4	4.50	114.3	6.00	152.4
(10)	8 Places		12 Places		16 Places		16 Places	
(11)	2.50	63.5	3.50	88.9	4.50	114.3	6.50	165.1
(12)	4.38 ±0.12	111.3 ±3.1	6.50 ±0.12	165.1 ±3.1	8.75 ±0.12	222.2 ±3.1	10.5 ±0.12	266.7 ±3.1
(13)	6.00	152.4	6.00	152.4	12.00	304.8	18.00	457.2

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### SPECIFICATIONS

PARAMETERS	MODEL						
	1610	1610	1610	1620	1632	1640	
	CAPACITY						
U.S. (lbf)	500	1K, 2K	5K, 10K	25K, 50K	100K	200K	
Metric (kN)	2.2	4.5, 9	22, 45	110, 225	450	900	
<b>ACCURACY – (MAX ERROR)</b>							
Static Error Band – %FS	±0.02	±0.02	±0.025	±0.025	±0.05	±0.05	
Nonlinearity – %FS	±0.03	±0.03	±0.035	±0.035	±0.05	±0.05	
Hysteresis – %FS	±0.02	±0.02	±0.035	±0.045	±0.05	±0.05	
Nonrepeatability – %RO	±0.005	±0.005	±0.005	±0.005	±0.005	±0.005	
Creep, in 20 min – %	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	
Side Load Sensitivity – %	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	
Eccentric Load Sensitivity – % / in	±0.1	±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	4.0	
<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 / °F MAX		±0.0004	±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	±0.0008
<b>ELECTRICAL</b>							
Rated Output – mV/V (Nominal)		2.0	2.0	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	in	0.002	0.002	0.004	0.004	0.006	0.010
	mm	0.05	0.05	0.10	0.10	0.15	0.25
Weight	lbs	3.8	3.8	8.0	23.5	058	171
	kg	1.724	1.724	3.629	10.659	26.308	77.564
Calibration		Tension & Compression					
Material		Alloy steel					

### OPTIONS

- Connector protection
- Standardized output
- Transducer Electronic Data Sheet (TEDS)
- Custom calibration
- Multiple bridge
- Special threads
- Dual diaphragm
- Special temperature range

### CONNECTOR OPTIONS

- PT02E-12-8P bayonet connector

### ACCESSORIES

- Mating connector
- Mating cable
- Instrumentation