

## 1601 GOLD STANDARD™ CALIBRATION COMPRESSION-ONLY LOAD CELL (U.S. & METRIC)

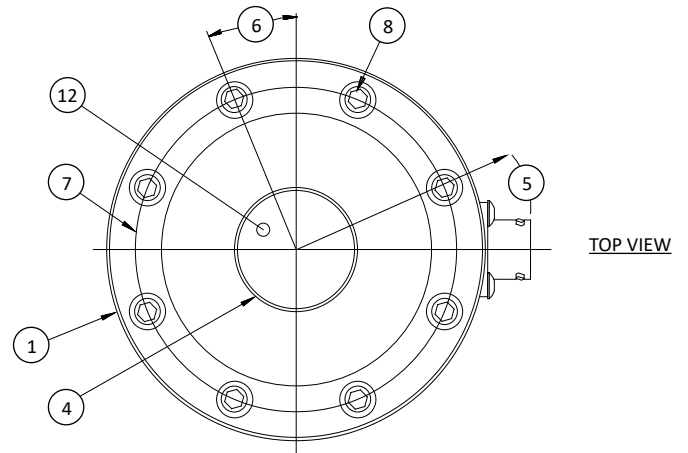
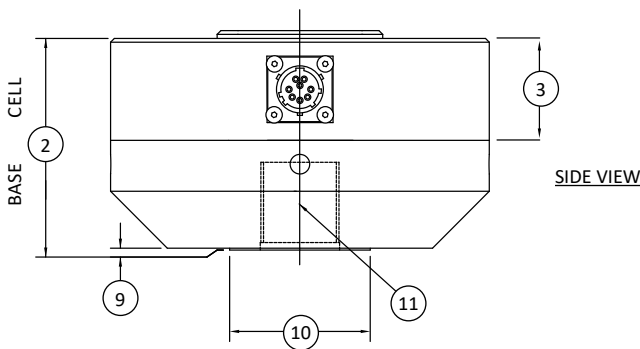
### FEATURES & BENEFITS

- Capacities from 1K to 100K lbf (4.5 to 450 kN)
- 0.01% creep
- High output – to 4mV/V
- High precision base installed
- 3 run NIST traceable ASTM E74 calibration
- Eccentric load compensated
- 0.0008%/°F temperature effect on output
- 4% lower load limit

### STANDARD CONFIGURATION



Model 1621BBI-50K (shown)



### DIMENSIONS

See Drawing	MODEL					
	1611		1621		1633	
	CAPACITY					
	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)
	1K, 2K, 5K, 10K	4.5, 9, 22, 45	25K, 50K	110, 225	100K	450
	in	mm	in	mm	in	mm
(1)	Ø4.13	Ø104.8	Ø6.06	Ø153.9	Ø8.00	Ø203.2
(2)	2.50	63.5	3.50	89.0	4.50	114.3
(3)	1.25	31.7	1.63	41.4	2.25	57.2
(4)	Ø1.34	Ø34.0	Ø2.41	Ø61.2	Ø3.76	Ø95.5
(5)	2.78	70.0	3.50	89.0	4.47	113.0
(6)	22.5°	22.5°	15.0°	15.0°	11.25°	11.25°
(7)	Ø3.50	Ø88.9	Ø5.13	Ø130.3	Ø6.50	Ø165.1
(8)	8 Places		12 Places		16 Places	
(9)	0.03	0.8	0.03	0.8	0.03	0.8
(10)	Ø1.25	Ø31.8	Ø2.25	Ø57.2	Ø3.00	Ø76.2
(11)	¼-18 UNF-3B ↓ 0.87	M16x2-4H ↓ 22.1	1 ¼-12 UNF-3B ↓ 1.40	M33x2-4H ↓ 35.6	1 ¼-12 UNF-3B ↓ 1.75	M42x2-4H ↓ 44.5
(12)	SR 6.00	SR 152.0	SR 8.00	SR 203.0	SR 12.0	SR 305.0

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### SPECIFICATIONS

PARAMETERS	MODEL										
	1611		1611		1611		1621		1633		
	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)	
1K	4.5	2K	9	5K, 10K	22, 45	25K, 50K	110, 225	100K	450		
<b>ACCURACY – (MAX ERROR)</b>											
Static Error Band – %FS	±0.02		±0.02		±0.025		±0.03		±0.04		
Nonlinearity – %FS	±0.03		±0.03		±0.04		±0.04		±0.04		
Hysteresis – %FS	±0.02		±0.02		±0.04		±0.04		±0.05		
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	±0.1		±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		
<b>TEMPERATURE</b>											
Compensated Range	°F	+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	
Operating Range	°F	-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	
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		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		
<b>MECHANICAL</b>											
Safe Overload – %CAP	±150		±150		±150		±150		±150		
Deflection @ RO	in	0.002		0.002		0.004		0.004		0.006	
	mm	0.05		0.05		0.10		0.10		0.15	
Weight	lbs	3.3		3.3		7.5		21.5		52	
	kg	1.5		1.5		3.4		1.75		23.59	
Calibration	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

- PT02E-12-8P

### ACCESSORIES

- Mating connector
- Mating cable
- Instrumentation
- Loading hardware
- Calibration software