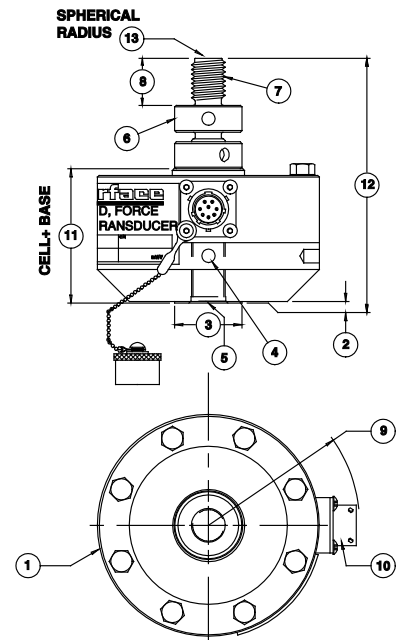


Model 1600 Gold Standard™ Calibration Load Cell

- Tension and compression in one unit
- .005% nonrepeatability
- .01% creep
- .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



DIMENSIONS

See Drawing	MODEL							
	1610		1620		1632		1640	
	CAPACITY							
	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
	inch	mm	inch	mm	inch	mm	inch	mm
(1)	4.13	104.7	6.06	153.9	8.00	203.1	11.00	279.3
(2)	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8
(3)	1.25	31.8	2.25	57.2	3.00	76.2	4.50	114.3
(4)	φ 0.25 0.29 deep	φ 6.4 7.4 deep	φ 0.31 0.31 deep	φ 7.9 7.9 deep	φ 0.31 0.31 deep	φ 7.9 7.9 deep	φ 0.31 0.31 deep	φ 7.9 7.9 deep
(5)	5/8-18 UNF-3B 0.87 deep	M16x2-4H 22.1 deep	1 1/4-12 UNF-3B 1.40 deep	M33x2-4H 35.6 deep	1 3/4-12 UN-3B 1.75 deep	M42x2-4H 44.4 deep	2 3/4-8 UN-3B 2.75 deep	M72x2-4H 69.8 deep
(6)	CA-101	CA-201	CA-102	CA-202	CA-103	CA-203	Integral	
(7)	5/8-18 UNF-3A	M16x2-4g	1 1/4-12 UNF-3A	M33x2-4g	1 3/4-12 UN-3A	M42x2-4g	2 3/4-8 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)	PT02E-12-8P		PT02E-12-8P		PT02E-12-8P		PT02E-12-8P	
(11)	2.50	63.5	3.50	88.9	4.50	114.3	6.50	165.1
(12)	4.38 ±.12	111.3 ±3.1	6.50 ±.12	165.1 ±3.1	8.75 ±.12	222.2 ±3.1	10.5 ±.12	266.7 ±3.1
(13)	6.00	152.4	6.00	152.4	12.00	304.8	18.00	457.2

1600
10/18/13

SPECIFICATIONS

PARAMETERS	MODEL					
	1610	1610	1610	1620	1632	1640
	CAPACITY					
U.S. Models (lbf)	500	1K, 2K	5K, 10K	25K, 50K	100K,	200K
Metric Models (kN)	2.2	4.5, 9	22, 45	110, 225	450	900
ACCURACY – (MAX ERROR)						
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
TEMPERATURE						
Compensated Range–°F	15 to 115	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	-10 to 45
Operating Range–°F	-65 to 200	-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	-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
ELECTRICAL						
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
MECHANICAL						
Safe Overload–% CAP	±150	±150	±150	±150	±150	±150
Deflection @ RO–inch	0.002	0.002	0.004	0.004	0.006	0.010
Weight–lb	3.8	3.8	8.0	23.5	58	171
Connector	PT02E-12-8P	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	T & C

OPTIONS

- Compression Overload Protection
- Multiple Bridge - Add'l Bridges to Meet 1200 Series Specifications
- Standardized Output
- ASTM E74 Calibration
- Connector Protection
- Low Profile Options

STANDARD CONFIGURATIONS

PT02E-12-8 Connector (16xxAJH-nn)

ACCESSORIES

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