

FATIGUE RATED (FR) SERIES LOAD CELLS

FEATURES

- First Choice for Fatigue Testing Applications
- Guaranteed for 100 Million Fully Reversed Cycles
- Low Height
- Guaranteed Maximum Off-Center Load & Moment Error
- Low Creep
- Low Susceptibility to Magnetic Fields
- Barometric Pressure Compensation
- 5pt Tension & Compression Calibration
- Proprietary Modulus Compensated Strain Gages



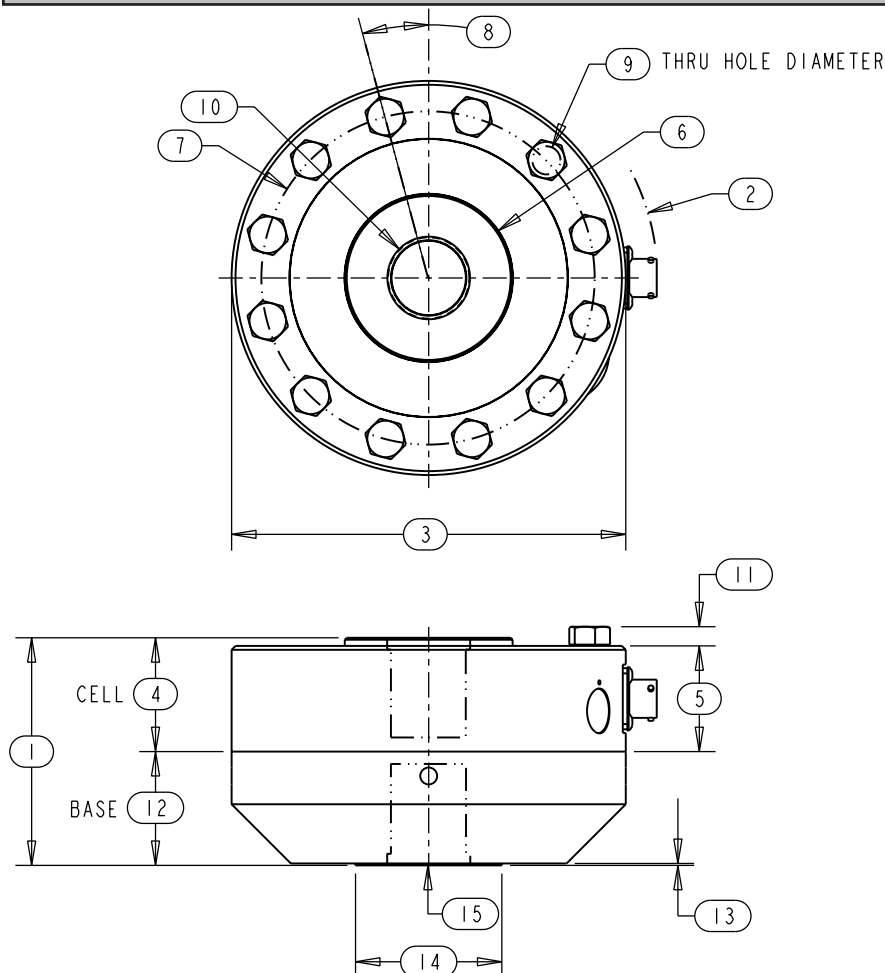
SPECIFICATIONS

Model		FR10 150, 250, 500, 1K	FR10	FR20	FR22	FR30
Capacity	U.S. lbf.		2.5K, 5K	12.5K, 25K	30K	50K
PARAMETERS	Metric kN	.75, 1.25, 2.5, 5	12.5, 25	50, 125	135	150, 250
ACCURACY						
Static Error Band, % Rated Output		+/-0.030	+/-0.040	+/-0.040	+/-0.050	+/-0.050
Nonlinearity, % Rated Output		+/-0.040	+/-0.040	+/-0.040	+/-0.050	+/-0.050
Hysteresis, % Rated Output		+/-0.030	+/-0.040	+/-0.050	+/-0.050	+/-0.050
Nonrepeatability, % Rated Output		+/-0.010	+/-0.010	+/-0.010	+/-0.010	+/-0.010
Creep, % in 20 minutes		+/-0.025	+/-0.025	+/-0.025	+/-0.025	+/-0.025
Off-Center Load Sensitivity, %/inch		+/-0.100	+/-0.100	+/-0.100	+/-0.100	+/-0.100
Side Load Sensitivity, %		+/-0.100	+/-0.100	+/-0.100	+/-0.100	+/-0.100
Zero Balance, % Rated Output		+/-1.0	+/-1.0	+/-1.0	+/-1.0	+/-1.0
TEMPERATURE						
Range, Compensated, °F		+15 to +115	+15 to +115	+15 to +115	+15 to +115	+15 to +115
Range, Compensated, °C		-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45
Range, Operating, °F		-65 to +200	-65 to +200	-65 to +200	-65 to +200	-65 to +200
Range, Operating, °C		-55 to +90	-55 to +90	-55 to +90	-55 to +90	-55 to +90
Effect on Sensitivity, % Rdg/ °F		+/-0.0008	+/-0.0008	+/-0.0008	+/-0.0008	+/-0.0008
Effect on Sensitivity, % Rdg/ °C		+/-0.0015	+/-0.0015	+/-0.0015	+/-0.0015	+/-0.0015
Effect on Zero, % Rated Output/ °F		+/-0.0008	+/-0.0008	+/-0.0008	+/-0.0008	+/-0.0008
Effect on Zero, % Rated Output/ °C		+/-0.0015	+/-0.0015	+/-0.0015	+/-0.0015	+/-0.0015
ELECTRICAL						
Rated Output, mV/V, Nominal		1	2	2	2	2
Excitation Voltage, VDC Maximum		20	20	20	20	20
Input Resistance, Ohms		350	350	350	350	350
Output Resistance, Ohms		350	350	350	350	350
Insulation Resistance, Megohm		5000	5000	5000	5000	5000
Bayonet Connector		PT02E-10-6P (MS3112E-10-6P)				
MECHANICAL						
Safe Overload Range, % Rated Capacity		+/- 300	+/- 300	+/- 300	+/- 300	+/- 300
Weight lb		1.0	2.9	9.1	9.1	23.5
Weight kg		0.5	1.3	4.1	4.1	10.7
Weight w/base lb		2.5	6.5	21.5	21.5	52.5
Weight w/base kg		1.1	3.0	9.8	9.8	23.8
Flexure Material		Aluminum	Steel	Steel	Steel	Steel

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DIMENSIONS

Model	FR10	FR10M	FR10	FR10M	FR20	FR20M	FR22	FR22M	FR30	FR30M
Capacity	150, 250, 500, 1K lbf	.75, 1.25, 2.5, 5 kN	2.5K, 5K lbf	12.5, 25 kN	12.5K, 25K lbf	50, 125 kN	30K	135kN	50K lbf	150, 250 kN
Dimensions	inch	mm	inch	mm	inch	mm	inch	mm	inch	inch
1.	2.51	63.5	2.51	63.5	3.51	88.9	4.50	114.3	4.50	114.3
2.	R 2.53	R 64.3	R 2.53	R 64.3	R 3.50	R 88.9	R 3.50	R 88.9	R 4.50	R 114.3
3.	4.12	104.8	4.12	104.8	6.06	154.0	6.06	154.0	8.00	203.2
4.	1.38	34.9	1.38	34.9	1.75	44.5	2.25	57.2	2.50	63.5
5.	1.25	31.8	1.25	31.8	1.63	41.3	2.13	54.1	2.25	57.2
6.	1.29	32.8	1.29	32.8	2.34 12.5K 2.58 25K	59.4 50kN 65.6 125kN	2.58	65.6	3.76	95.6
7.	3.50	88.9	3.50	88.9	5.13	130.3	5.13	130.3	6.50	165.1
8.	22.5°	22.5°	22.5°	22.5°	15°	15°	15°	15°	11.25°	11.25°
9.	.28 8 Places	7.1 8 Places	.28 8 Places	7.1 8 Places	.41 12 Places	10.3 12 Places	.47 12 Places	11.9 12 Places	.53 16 Places	13.5 16 Places
10.	1/2-20 1.12 Deep	M12 x 1.25 28.5 Deep	5/8 - 18 1.12 Deep	M16 x 2 28.5 Deep.	1 1/4 - 12 1.50 Deep	M33x 2 38.1 Deep	1 1/2 - 12 2.00 Deep	M36x 2 50.8 Deep	1 3/4-12 2.20 Deep	M42 x 2 55.9 Deep
11.	0.18	4.7	0.18	4.7	0.29	7.5	0.31	7.9	.40	10.2
12.	1.13	28.6	1.13	28.6	1.75	44.5	2.25	57.2	2.00	50.8
13.	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8
14.	1.25	31.8	1.25	31.8	2.25	57.2	3.00	76.2	3.00	76.2
15.	1/2-20 .88 Deep	M12 x 1.25 22.4 Deep	5/8 - 18 .88 Deep	M16 x 2 22.4 Deep	1 1/4 - 12 1.50 Deep	M33 x 2 38.1 Deep	1 1/2 - 12 2.00 Deep	M36 x 2 50.8 Deep	1 3/4-12 1.75 Deep	M42 x 2 44.5 Deep



OPTIONS

Additional bridges
Output adjustment to standard
Compression overload protection
Integral cable
Custom connectors
Connector Protectors
Base

ACCESSORIES

Mating connector
Loading fixtures
Interconnect cable
Shunt calibration resistor
Instrumentation