

HIGH CAPACITY 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 and Moment Error
- Low Creep
- Low Susceptibility to Magnetic Fields
- Barometric Pressure Compensation
- 5pt Tension & Compression Calibration
- Proprietary Modulus Compensated Strain Gages



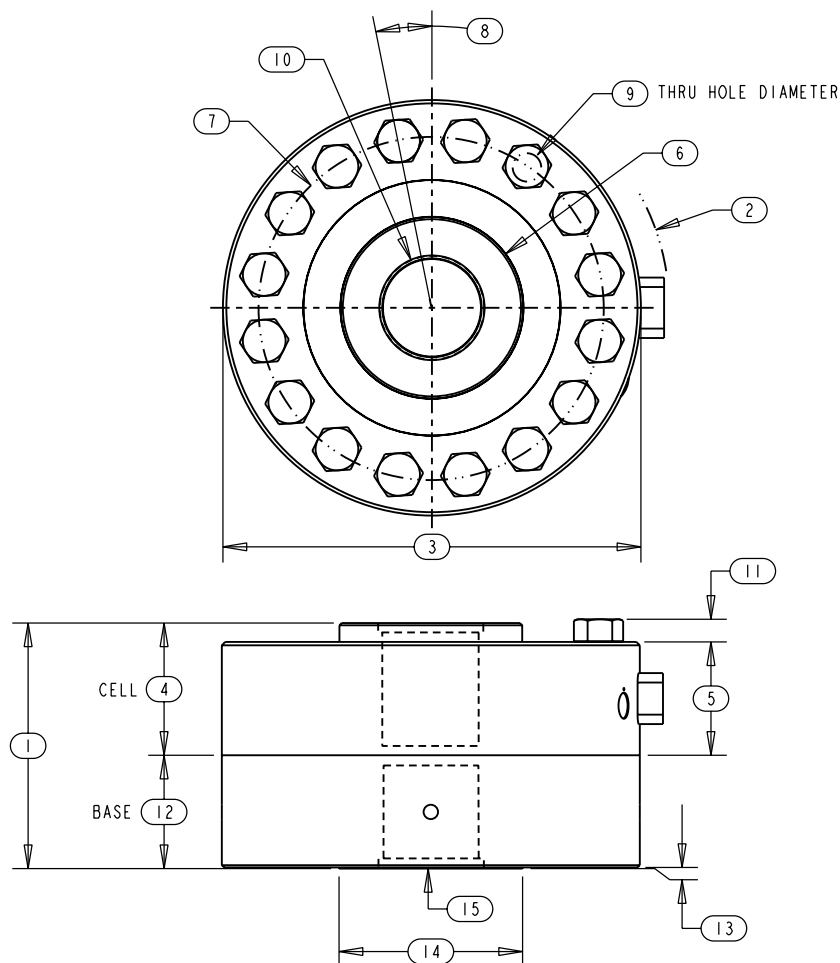
SPECIFICATIONS

Model	FR40	FR42	FR45	FR62	FR80
Capacity U.S. lbf.	100K	135K	150K, 200K	250K, 300K	375K, 500K
PARAMETERS Metric kN	500	600	700, 900	1100, 1350	1650, 2250
ACCURACY					
Static Error Band, % Rated Output	+/-0.060	+/-0.070	+/-0.100	+/-0.100	+/-0.150
Nonlinearity, % Rated Output	+/-0.060	+/-0.080	+/-0.100	+/-0.100	+/-0.150
Hysteresis, % Rated Output	+/-0.060	+/-0.080	+/-0.100	+/-0.100	+/-0.150
Nonrepeatability, % Rated Output	+/-0.010	+/-0.020	+/-0.020	+/-0.020	+/-0.020
Creep, % in 20 minutes	+/-0.025	+/-0.025	+/-0.025	+/-0.025	+/-0.025
Off-Center Load Sensitivity, %/inch	+/-0.250	+/-0.250	+/-0.250	+/-0.250	+/-0.250
Side Load Sensitivity, %	+/-0.250	+/-0.250	+/-0.250	+/-0.250	+/-0.250
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	2	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) Included Protector				
MECHANICAL					
Safe Overload Range, % Rated Capacity	+/-300	+/-300	+/-300	+/-300	+/-300
Weight lb	74	84	120	245	450
Weight kg	34	38	54	111	204
Weight w/base lb	146	156	250	448	1050
Weight w/base kg	66	71	113	203	476
Flexure Material	Steel	Steel	Steel	Steel	Steel

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DIMENSIONS

Model	FR40	FR40M	FR42	FR42M	FR45	FR45M	FR62	FR62M	FR80	FR80M
Capacity	100K lbf	500 kN	135K lbf	600 kN	150K, 200K lbf	700, 900 kN	250K, 300K lbf	1100, 1350 kN	375K, 500K lbf	1650, 2250 kN
Dimensions	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
1.	6.50	165.1	8.00	203.2	8.75	222.3	10.25	235	13.00	330.2
2.	R 6.16	R 156.5	R 6.16	R 156.5	R 6.78	172.2	R 8.65	R 219.7	R 10.89	R 276.6
3.	11.00	279.4	11.00	279.4	12.25	311.2	16.00	406.4	20.50	520.7
4.	3.50	88.9	4.00	101.6	4.50	114.3	5.25	133.3	6.50	165.1
5.	3.00	76.2	3.50	88.9	4.25	108.0	4.75	120.6	6.25	158.7
6.	4.81	122.2	4.81	122.2	6.13	155.7	7.89	200.4	9.86	250.4
7.	9.00	228.6	9.00	228.6	10.11	256.9	13.06	331.6	16.50	419.1
8.	11.25°	11.25°	11.25°	11.25°	9.0°	9.0°	9.0°	9.0°	6.4°	6.4°
9.	.78 16 Places	19.8 16 Places	.78 16 Places	19.8 16 Places	.78 20 Places	19.8 20 Places	1.18 20 Places	30.0 20 Places	1.06 28 Places	26.9 28 Places
10.	2 3/4- 8 3.2 Deep	M72 x 2 81.3 Deep	2 3/4- 8 3.7 Deep	M72 x 2 94.0 Deep	3-12 4.00 Deep	M76 x 2 101.6 Deep	4 - 8 4.75 Deep	M100x 3 120.7 Deep	6- 8 5.4 Deep	M150x 3 137.1 Deep
11.	0.60	15.2	0.60	15.2	0.60	15.2	0.92	20.8	.77	19.5
12.	3.00	76.2	4.00	101.6	4.25	108.0	5.00	101.6	6.50	165.1
13.	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8
14.	4.83	122.7	4.83	122.7	5.70	144.8	7.89	200.4	10.00	254.0
15.	2 3/4- 8 2.70 Deep	M72 x 2 68.6 Deep	2 3/4- 8 3.70 Deep	M72 x 2 94.0 Deep	3-12 3.90 Deep	M76 x 2 99.1 Deep	4 - 8 4.65 Deep	M100 x 3 88.9 Deep	6 - 8 5.4 Deep	M150 x 3 137.1 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