

SHEAR WEB LOAD CELLS

FATIGUE RATED METRIC SERIES FORCE TRANSDUCERS

FEATURES

- Fatigue Rated**
- Low Height**
- Guaranteed Maximum Off-Center Load and Moment Error**
- Static Error Band .03-.06%**
- Low Creep**
- Low Sensitivity To Magnetic Fields**
- Barometric Pressure Compensation**
- Temperature Compensated**
- Bayonet Connector**



SPECIFICATIONS

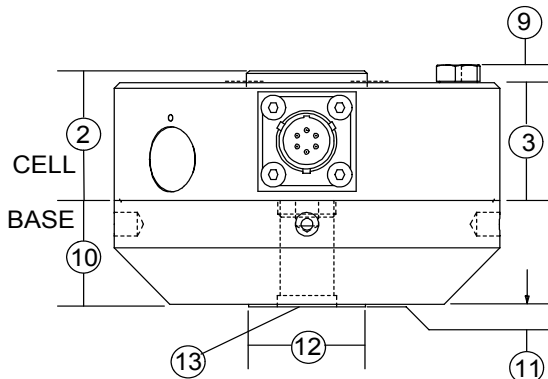
PARAMETERS	Model FR10M- 1.25kN, 2.5kN 5kN	FR10M- Capacity (kN) 12.5kN 25kN	FR20M- 50kN 125kN	FR30M- 250kN
Accuracy				
Static Error Band, % R.O.	+/- 0.03	+/- 0.04	+/- 0.05	+/- 0.05
Non linearity, % R.O..	+/- 0.04	+/- 0.04	+/- 0.05	+/- 0.05
Hysteresis, % R.O.	+/- 0.03	+/- 0.04	+/- 0.05	+/- 0.05
Non-Repeatability, % R.O.	+/- 0.01	+/- 0.01	+/- 0.01	+/- 0.01
Creep, % Reading in 20 Minutes	+/- 0.03	+/- 0.03	+/- 0.03	+/- 0.03
Off-Center Load Sensitivity, % /inch	+/- 0.1	+/- 0.1	+/- 0.1	+/- 0.1
Side Load Sensitivity, %	+/- 0.1	+/- 0.1	+/- 0.1	+/- 0.1
Zero Balance, % R.O.	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.0
Temperature				
Range, Compensated, °F	+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
Range, Operating, °F	-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
Effect on Sensitivity, % Rdg/°C	0.0015	.0015	.0015	.0015
Effect on Zero, % Rdg/°C	0.0027	0.0027	0.0027	0.0027
Electrical				
Excitation Voltage, Recommended, Vdc	10	10	10	10
Input resistance, Ohms	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5
Output Resistance, Ohms	350 +/- 3.5	350 +/- 3.5	350 +/- 3.5	350 +/- 3.5
Sensitivity (Rated Output), mV/V, Nominal	1	2	2	2
Insulation Resistance, Bridge to Case, Meg Ohm	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC
Mechanical				
Safe Overload Range, % R.O.	300	300	300	300
Weight, Kg (lbs.)	.45 (1.0)	1.30 (2.9)	4.13 (9.1)	10.66 (23.5)
Weight w/Base, Kg (lbs.)	1.13 (2.5)	2.95 (6.5)	9.75 (21.5)	23.81 (52.5)
Flexure Material	Aluminum	Steel	Steel	Steel

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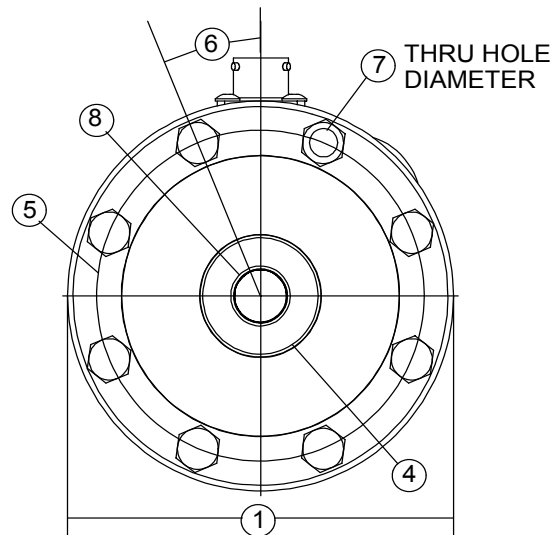
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FATIGUE RATED METRIC SERIES DIMENSIONS

Millimeters (Inches)	FR10M-1.25kN to 5kN	FR10M-12.5kN & 25kN	FR20M-50kN & 125kN	FR30M-250kN
1-CELL & BASE DIAMETER	104.8 (4.12)	104.8 (4.12)	154.0 (6.06)	203.2 (8.00)
2-CELL HEIGHT TO HUB	34.9 (1.38)	34.9 (1.38)	44.5 (1.75)	63.5 (2.5)
3-CELL MOUNTING HEIGHT	31.8 (1.25)	31.8 (1.25)	41.4 (1.63)	57.2 (2.25)
4-HUB DIAMETER	32.8 (1.29)	32.8 (1.29)	50kN - 59.44 (2.34) 125kN - 65.50 (2.58)	95.5 (3.76)
5-MOUNTING B.C. DIAMETER	88.9 (3.50)	88.9 (3.50)	130.3 (5.13)	165.1 (6.50)
6-SYMMETRIC B.C. OFFSET	22.5 Degrees	22.5 Degrees	15.0 Degrees	11.25 Degrees
7-MTG. HOLE DIAMETER	7.1 (0.28)	7.1 (0.28)	10.4 (0.41)	13.5 (0.53)
8-HUB THREAD	M12 x 1.25, 28.5 (1.12)Dp	M16 x 2, 28.5 (1.12)Dp	M33 x 2, 35.5 (1.50) Dp	M42 x 2, 81.3 (2.20) Dp
9-BOLT HEAD PROTRUSION	5.1 (0.20)	5.1 (0.20)	7.6 (0.30)	10.2 (0.40)
10-BASE THICKNESS, TOTAL	28.7 (1.13)	28.7 (1.13)	44.5 (1.75)	50.8 (2.00)
11-BASE STEP HEIGHT	0.8 (0.03)	0.8 (0.03)	0.8 (0.03)	0.8 (0.03)
12-BASE STEP DIAMETER	31.8 (1.25)	31.8 (1.25)	57.2 (2.25)	76.2 (3.00)
13-BASE THREAD	M12 x 1.25, 22.4 (0.88)Dp	M16 x 2, 22.4 (0.88)Dp	M33 x 2, 38.1 (1.15) Dp	M42 x 2, 68.6 (1.75) Dp



LOAD CELL CONNECTOR: MS3112-10-6P
MATING CONNECTOR: MS3116-10-4S



OPTIONS

- Additional Bridges
- Output Adjustment to Standard
- Compression Overload Protection
- Integral Cable
- Custom Connectors

ACCESSORIES

- Mating Connector
- Loading Fixtures
- Interconnect Cable
- Shunt Calibration Connector
- Instrumentation