

SHEAR WEB LOAD CELLS

FATIGUE RATED SHEAR WEB (FR) 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



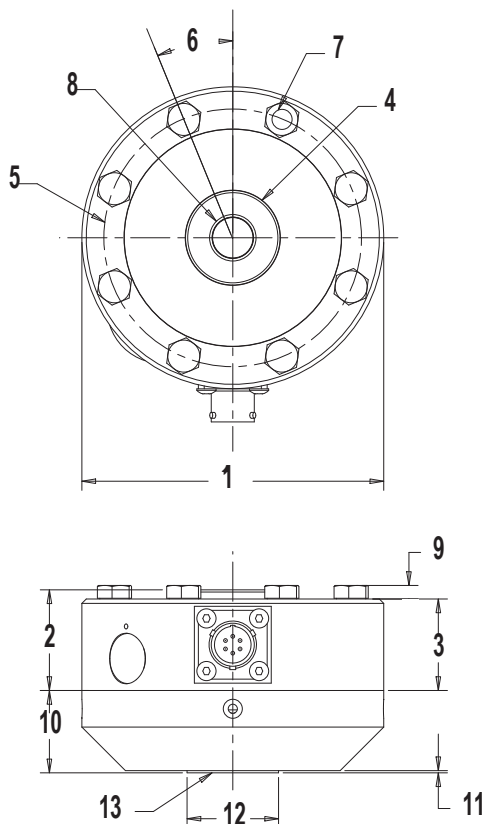
SPECIFICATIONS

PARAMETERS	MODEL				
	FR10 150, 250, 500, 1K	FR10 2.5K, 5K	FR20 12.5K, 25K	FR30 50K	FR40 100K
Accuracy					
Static Error Band, % R.O.	+/-0.03	+/- 0.04	+/- 0.05	+/- 0.05	+/- 0.06
Non linearity, % R.O..	+/-0.04	+/- 0.04	+/- 0.05	+/- 0.05	+/- 0.06
Hysteresis, % R.O.	+/-0.03	+/-0.04	+/-0.05	+/-0.05	+/-0.06
Non-Repeatability, % R.O.	+/- 0.01	+/- 0.01	+/- 0.01	+/- 0.01	+/- 0.01
Creep, % Reading in 20 Minutes	+/- 0.03	+/- 0.03	+/- 0.03	+/- 0.03	+/- 0.03
Off-Center Load Sensitivity, % /inch	+/- 0.1	+/- 0.1	+/- 0.1	+/- 0.1	+/- 0.1
Side Load Sensitivity, %	+/- 0.1	+/- 0.1	+/- 0.1	+/- 0.1	+/- 0.1
Zero Balance, % R.O.	+/- 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, Operating, °F	-65 to +200	-65 to +200	-65 to +200	-65 to +200	-65 to +200
Effect on Sensitivity, % Rdg/100 °F	0.08	0.08	0.08	0.08	0.08
Effect on Zero, %R.O./100 °F	0.15	0.15	0.15	0.15	0.15
Electrical					
Excitation Voltage, Recommended, Vdc	10	10	10	10	10
Input resistance, Ohms	350 +40/-3.5	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	350 +/- 3.5
Sensitivity (Rated Output), mV/V, Nominal	1	2	2	2	2
Insulation Resist., Bridge/Case, Meg Ohm	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC
Mechanical					
Safe Overload Range, % R.O.	300	300	300	300	300
Weight (lbs.)	1.0	2.9	9.1	23.5	59
Weight w/Base (lbs.)	2.5	6.5	21.5	52.5	139
Flexure Material	Aluminum	Steel	Steel	Steel	Steel

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DIMENSIONS

Review Drawing	MODEL				
	FR10	FR10	FR20	FR30	FR40
	CAPACITY (lbf)				
	150, 250, 500, 1K	2.5K, 5K	12.5K, 25K	50K	100K
1-CELL & BASE DIAMETER	(in inches) 4.12	4.12	6.06	8.00	10.90
2-CELL HEIGHT TO HUB	1.38	1.38	1.75	2.50	3.50
3-CELL BODY HEIGHT	1.25	1.25	1.63	2.25	3.00
4-HUB DIAMETER	1.29	1.29	2.34 12K/2.58 25K	3.76	4.81
5-MOUNTING B.C. DIAMETER	3.50	3.50	5.13	6.50	9.00
6-SYMMETRIC B.C. OFFSET	22.5 Degrees	22.5 Degrees	15 Degrees	11.25 Degrees	11.25
7-MTG. HOLE DIAMETER	0.28	0.28	0.41	0.53	.78
8-HUB THREAD	1/2 - 20. 1.12 Dp.	5/8 - 18. 1.12 Dp.	1 1/4 - 12. 1.50 Dp.	1 3/4 - 12. 2.20 Dp.	2 3/4 - 8. 3.2 Dp.
9-BOLT HEAD PROTRUSION	0.20	0.20	0.30	0.4	.60
10-BASE THICKNESS, TOTAL	1.13	1.13	1.75	2.00	3.00
11-BASE STEP HEIGHT	0.03	0.03	0.03	0.03	.03
12-BASE STEP DIAMETER	1.25	1.25	2.25	3.00	4.83
13-BASE THREAD	1/2-20. .88 Dp	5/8-18. .88 Dp	1 1/4 - 12. 1.50 Dp.	1 3/4 - 12. 1.75 Dp.	2 3/4 - 8. 2.7 Dp.



OPTIONS

- Additional bridges
- Output adjustment to standard
- Compression overload protection
- Integral cable
- Custom connectors

ACCESSORIES

- Mating connector
- Loading fixtures
- Interconnect cable
- Shunt calibration resistor
- Instrumentation

INTERTECHNOLOGY

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INC.

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THE ENGINEER'S CHOICE FOR LOAD CELLS AND FORCE MEASUREMENT