

FATIGUE RATED STAINLESS STEEL (FRS) SERIES FORCE TRANSDUCERS

FEATURES

- Stainless Steel Construction
- Welded Diaphragm
- Optional Hermetically Sealed Connector
- Guaranteed Maximum Off-Center Load and Moment Error
- Low Creep
- Low Susceptibility to Magnetic Fields
- Temperature and Barometric Pressure Compensation
- 5pt Tension & Compression Calibration
- Proprietary Modulus Compensated Strain Gages



Note: Shown with Optional Connector and Connector Box

SPECIFICATIONS

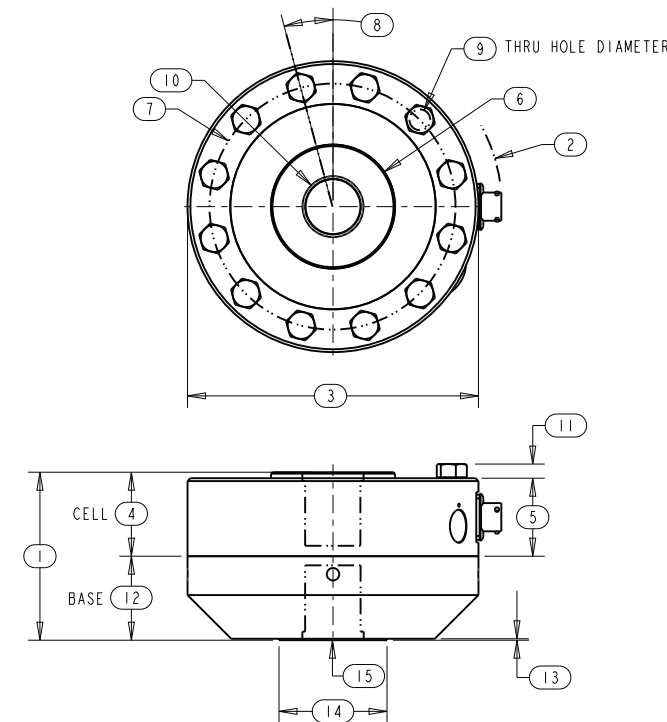
Model	FRS10	FRS20
Capacity U.S. lbf.	2.5K, 5K	12.5K, 25K
Capacity Metric kN	12.5, 25	50, 125
PARAMETERS		
ACCURACY		
Static Error Band, % Rated Output	+/-0.050	+/-0.050
Nonlinearity, % Rated Output	+/-0.050	+/-0.050
Hysteresis, % Rated Output	+/-0.060	+/-0.060
Nonrepeatability, % Rated Output	+/-0.010	+/-0.010
Creep, % in 20 minutes	+/-0.025	+/-0.025
Off-Center Load Sensitivity, %/inch	+/-0.250	+/-0.250
Side Load Sensitivity, %	+/-0.250	+/-0.250
Zero Balance, % Rated Output	+/-1.0	+/-1.0
TEMPERATURE		
Range, Compensated, °F	+15 to +115	+15 to +115
Range, Compensated, °C	-10 to +45	-10 to +45
Range, Operating, °F	-65 to +200	-65 to +200
Range, Operating, °C	-55 to +90	-55 to +90
Effect on Sensitivity, % Rdg/ °F	+/-0.0008	+/-0.0008
Effect on Sensitivity, % Rdg/ °C	+/-0.0015	+/-0.0015
Effect on Zero, % Rated Output/ ° F	+/-0.0015	+/-0.0015
Effect on Zero, % Rated Output/ ° C	+/-0.0027	+/-0.0027
ELECTRICAL		
Rated Output, mV/V, Nominal	2	2
Excitation Voltage, VDC Maximum	20	20
Input Resistance, Ohms	350 + 40/-3.5	350 + 40/-3.5
Output Resistance, Ohms	350 +/-3.5	350 +/-3.5
Insulation Resistance, Megohm	5000 @ 50 VDC	5000 @ 50 VDC
Bayonet Connector	PT02E-10-6P (MS3112E-10-6P)	
MECHANICAL		
Safe Overload Range, % Rated Capacity	+/-300	+/-300
Weight lb	2.9	9.1
Weight kg	1.3	4.1
Weight w/base lb	6.5	21.5
Weight w/base kg	3.0	9.8
Flexure Material	Stainless Steel	

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DIMENSIONS

Model	FRS10	FRS10M	FRS20	FRS20M
Capacity	2.5K, 5K lbf	12.5, 25 kN	12.5K, 25K lbf	50, 125 kN
Dimensions	inch	mm	inch	mm
1.	2.51	63.5	3.51	88.9
2.	R 2.53	R 64.3	R 3.50	R 88.9
3.	4.12	104.8	6.06	154.0
4.	1.38	34.9	1.75	44.5
5.	1.25	31.8	1.63	41.3
6.	1.29	32.8	2.34 12.5K 2.58 25K	59.4 50 kN 65.6 125 kN
7.	3.50	88.9	5.13	130.3
8.	22.5°	22.5°	15°	15°
9.	.28 8 Places	7.1 8 Places	.41 12 Places	10.3 12 Places
10.	5/8 - 18 1.12 Deep	M16 x 2 28.5 Deep.	1 1/4 - 12 1.50 Deep	M33x 2 38.1 Deep
11.	0.18	4.7	0.29	7.5
12.	1.13	28.6	1.75	44.5
13.	0.03	0.8	0.03	0.8
14.	1.25	31.8	2.25	57.2
15.	5/8 - 18 .88 Deep	M16 x 2 22.4 Deep	1 1/4 - 12 1.50 Deep	M33 x 2 38.1 Deep

TOVEY
ENGINEERING INNOVATION



OPTIONS

- Additional bridges
- Output adjustment to standard
- Compression overload protection
- Hermetically sealed connector
- Connector Protectors
- Integral cable

ACCESSORIES

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

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