

AXIAL FORCE AND MOMENT (SW-XYZ) SERIES

FEATURES

- Measure Z-Axis Force, X- and Y-Axis Moment
- High Accuracy Force Measurement
- Proprietary Modulus Compensated Strain Gages



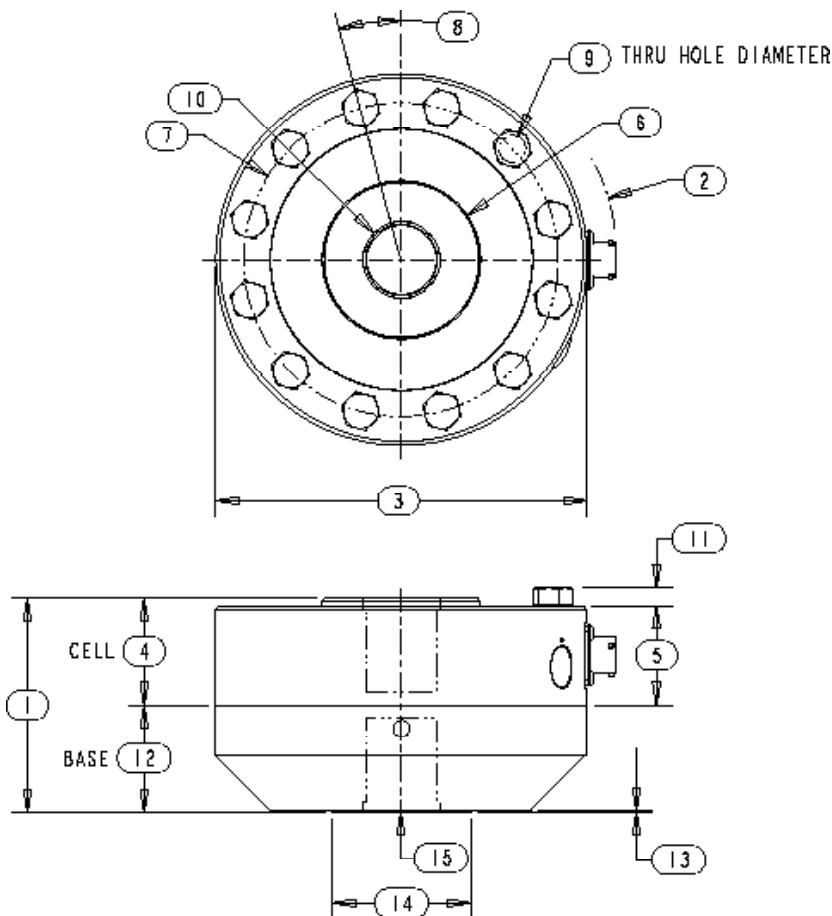
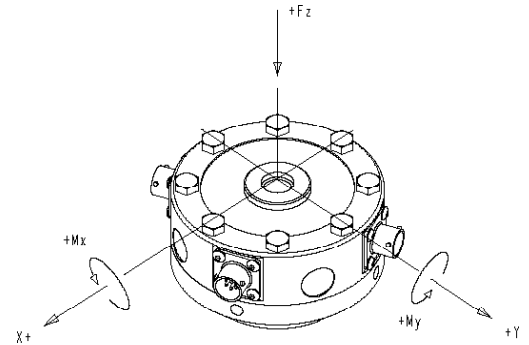
SPECIFICATIONS

Model	SW10-XYZ		SW10-XYZ		SW20-XYZ		SW30-XYZ	
	Capacity	U.S. lbf.	500/200, 1K/400, 2K/800,	5K/1K, 10K/2K	25K/10K, 50K/20K	100K/50K	Force-lbf	Moment-in-lbf
PARAMETERS	Force-lbf	Moment-in-lbf	Force-lbf	Moment-in-lbf	Force-lbf	Moment-in-lbf	Force-lbf	Moment-in-lbf
ACCURACY								
Static Error Band, % Rated Output	+/- 0.040	+/- 1.000	+/- 0.040	+/- 1.000	+/- 0.050	+/- 1.000	+/- 0.050	+/- 1.000
Nonlinearity, % Rated Output	+/- 0.030	+/- 1.000	+/- 0.030	+/- 1.000	+/- 0.050	+/- 1.000	+/- 0.050	+/- 1.000
Hysteresis, % Rated Output	+/- 0.040	+/- 0.100	+/- 0.040	+/- 0.100	+/- 0.050	+/- 0.100	+/- 0.050	+/- 0.100
Nonrepeatability, % Rated Output	+/- 0.010	+/- 0.050	+/- 0.010	+/- 0.050	+/- 0.010	+/- 0.050	+/- 0.010	+/- 0.050
Creep, % in 20 minutes	+/- 0.025	+/- 0.025	+/- 0.025	+/- 0.025	+/- 0.025	+/- 0.025	+/- 0.025	+/- 0.025
Off-Center Load Sensitivity, % / Inch	+/- 0.250	+/- 1.000	+/- 0.250	+/- 1.000	+/- 0.250	+/- 1.000	+/- 0.250	+/- 1.000
Side Load Sensitivity, %	+/- 0.250	+/- 1.000	+/- 0.250	+/- 1.000	+/- 0.250	+/- 1.000	+/- 0.250	+/- 1.000
Zero Balance, % Rated Output	+/- 1.0	+/- 1.0	+/- 1.0	+/- 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	+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	-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	-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	-55 to +90	-55 to +90	-55 to +90
Effect on Sensitivity, % Rdg / °F	+/- 0.0008	+/- 0.0008	+/- 0.0008	+/- 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	+/- 0.0015	+/- 0.0015	+/- 0.0015
Effect on Zero, % Rated Output / °F	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015
Effect on Zero, % Rated Output / °C	+/- 0.0027	+/- 0.0027	+/- 0.0027	+/- 0.0027	+/- 0.0027	+/- 0.0027	+/- 0.0027	+/- 0.0027
ELECTRICAL								
Rated Output, mV/V, Nominal	2	1.5	4	1.5	4	1.5	4	1.5
Excitation Voltage, VDC Maximum	20	20	20	20	20	20	20	20
Input Resistance, Ohms	350	350	350	350	350	350	350	350
Output Resistance, Ohms	350	350	350	350	350	350	350	350
Insulation Resistance, Megohms	5000	5000	5000	5000	5000	5000	5000	5000
Bayonet Connector	PT02E-10-6P (MS3112E-10-6P)							
MECHANICAL								
Safe Overload Range, % Rated Capacity	+/- 150	+/- 150	+/- 150	+/- 150	+/- 150	+/- 150	+/- 150	+/- 150
Weight, lb	1.0	1.0	1.0	1.0	9.1	9.1	23.5	23.5
Weight, kg	0.45	0.45	0.45	0.45	4.13	4.13	10.66	10.66
Weight w/base, lb	2.5	2.5	2.5	2.5	21.5	21.5	52.5	52.5
Weight w/base, kg	1.13	1.13	1.13	1.13	9.75	9.75	23.81	23.81
Flexure Material	Aluminum		Steel		Steel		Steel	

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DIMENSIONS

Model	SW10-XYZ	SW10-XYZ	SW20-XYZ	SW30-XYZ
Capacity	500/200, 1K/400, 2K/800	5K/1K, 10K/2K	25K/10K, 50K/20K	100K/50K
Dimensions	inch	inch	inch	inch
1.	2.51	2.51	3.51	4.50
2.	R 2.53	R 2.53	R 3.50	R 4.50
3.	4.12	4.12	6.06	8.00
4.	1.38	1.38	1.75	2.50
5.	1.25	1.25	1.63	2.25
6.	1.29	1.29	2.34 25K/10K 2.58 50K/20K	3.76
7.	3.50	3.50	5.13	6.50
8.	22.5°	22.5°	15°	11.25°
9.	0.28 8 Places	0.28 8 Places	0.41 12 Places	0.53 16 Places
10.	1/2-20 1.12 Deep	5/8-18 1.12 Deep	1 1/4 - 12 1.50 Deep	1 3/4-12 2.20 Deep
11.	0.18	0.18	0.29	0.40
12.	1.13	1.13	1.75	2.00
13.	0.03	0.03	0.03	0.03
14.	1.25	1.25	2.25	3.00
15.	1/2-20 0.88 Deep	5/8-18 0.88 Deep	1 1/4 - 12 1.50 Deep	1 3/4-12 1.75 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