

# STAINLESS STEEL (SWS) 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



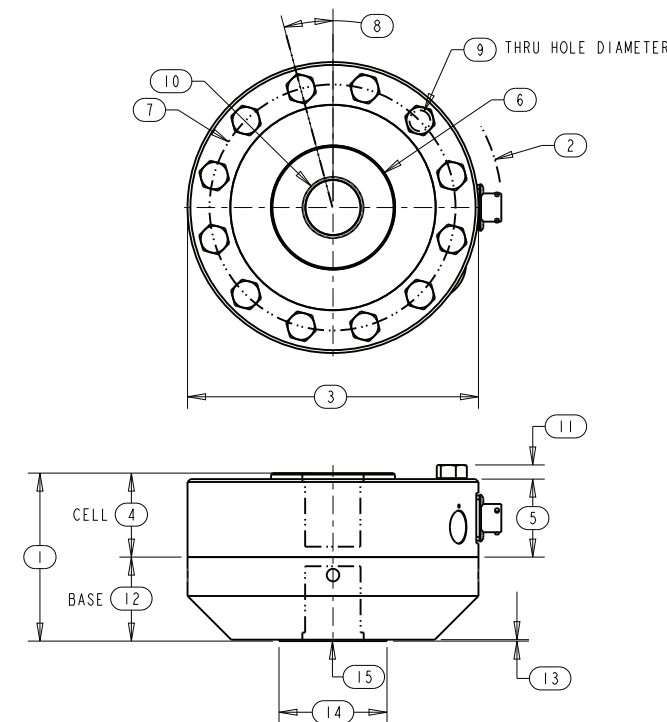
Note: Shown with Optional Integral Cable

## SPECIFICATIONS

Model	SWS10	SWS20	SWS30
Capacity U.S. lbf.	5K, 10K	25K, 50K	100K
Capacity Metric kN	25, 50	100, 250	500
<b>PARAMETERS</b>			
<b>ACCURACY</b>			
Static Error Band, % Rated Output	+/-0.050	+/-0.050	+/-0.060
Nonlinearity, % Rated Output	+/-0.050	+/-0.050	+/-0.050
Hysteresis, % Rated Output	+/-0.060	+/-0.060	+/-0.060
Nonrepeatability, % Rated Output	+/-0.010	+/-0.010	+/-0.010
Creep, % in 20 minutes	+/-0.025	+/-0.025	+/-0.025
Off-Center Load Sensitivity, %/inch	+/-0.250	+/-0.250	+/-0.250
Side Load Sensitivity, %	+/-0.250	+/-0.250	+/-0.250
Zero Balance, % Rated Output	+/-1.0	+/-1.0	+/-1.0
<b>TEMPERATURE</b>			
Range, Compensated, °F	+15 to +115	+15 to +115	+15 to +115
Range, Compensated, °C	-10 to +45	-10 to +45	-10 to +45
Range, Operating, °F	-65 to +200	-65 to +200	-65 to +200
Range, Operating, °C	-55 to +90	-55 to +90	-55 to +90
Effect on Sensitivity, % Rdg/ °F	+/-0.0008	+/-0.0008	+/-0.0008
Effect on Sensitivity, % Rdg/ °C	+/-0.0015	+/-0.0015	+/-0.0015
Effect on Zero, % Rated Output/ °F	+/-0.0015	+/-0.0015	+/-0.0015
Effect on Zero, % Rated Output/ °C	+/-0.0027	+/-0.0027	+/-0.0027
<b>ELECTRICAL</b>			
Rated Output, mV/V, Nominal	4	4	4
Excitation Voltage, VDC Maximum	20	20	20
Input Resistance, Ohms	350 + 40/-3.5	350 + 40/-3.5	350 + 40/-3.5
Output Resistance, Ohms	350 +/-3.5	350 +/-3.5	350 +/-3.5
Insulation Resistance, Megohm	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC
Bayonet Connector	PT02E-10-6P (MS3112E-10-6P)		
<b>MECHANICAL</b>			
Safe Overload Range, % Rated Capacity	+/-150	+/-150	+/-150
Weight lb	2.9	9.1	23.5
Weight kg	1.3	4.1	10.7
Weight w/base lb	6.5	21.5	52.5
Weight w/base kg	3.0	9.8	23.8
Flexure Material	Stainless Steel		

## DIMENSIONS

Model	SWS10	SWS10M	SWS20	SWS20M	SWS30	SWS30M
Capacity	5K, 10K lbf	25, 50 kN	25K, 50K lbf	100, 250 kN	100K lbf	500kN
Dimensions	inch	mm	inch	mm	inch	mm
1.	2.51	63.5	3.51	88.9	4.50	114.3
2.	R 2.53	R 64.3	R 3.50	R 88.9	R 4.50	R 114.3
3.	4.12	104.8	6.06	154.0	8.00	203.2
4.	1.38	34.9	1.75	44.5	2.50	63.5
5.	1.25	31.8	1.63	41.3	2.25	57.2
6.	1.29	32.8	2.34 25K 2.58 50K	59.4 100kN 65.6 250kN	3.76	95.6
7.	3.50	88.9	5.13	130.3	6.50	165.1
8.	22.5°	22.5°	15°	15°	11.25°	11.25°
9.	.28 8 Places	7.1 8 Places	.41 12 Places	10.3 12 Places	.53 16 Places	13.5 16 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	1 3/4-12 2.20 Deep	M42 x 2 55.9 Deep
11.	0.18	4.7	0.29	7.5	.40	10.2
12.	1.13	28.6	1.75	44.5	2.00	50.8
13.	0.03	0.8	0.03	0.8	0.03	0.8
14.	1.25	31.8	2.25	57.2	3.00	76.2
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	1 3/4-12 1.75 Deep	M42 X 2 44.5 Deep



## 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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