

# SHEAR WEB (SW) SERIES LOAD CELLS

## FEATURES

- First Choice for Structural and Materials Testing
- Low Height
- Guaranteed Maximum Off-Center Load & Moment Error
- Low Creep
- Low Susceptibility to Magnetic Fields
- Barometric Pressure Compensation
- Output to 4mV/V
- 5pt Tension & Compression Calibration
- Proprietary Modulus Compensated Strain Gages



## SPECIFICATIONS

Model	SW10 300, 500, 1K, 2K	SW10 5K, 10K	SW20 25K, 50K	SW22 60K	SW30 100K
Capacity U.S. lbf.					
Capacity Metric kN	1.5, 2.5, 5, 10	25, 50	100, 250	270	300, 500
<b>PARAMETERS</b>					
<b>ACCURACY</b>					
Static Error Band, % Rated Output	+/-0.040	+/-0.040	+/-0.040	+/-0.050	+/-0.050
Nonlinearity, % Rated Output	+/-0.040	+/-0.040	+/-0.040	+/-0.050	+/-0.050
Hysteresis, % Rated Output	+/-0.030	+/-0.040	+/-0.050	+/-0.050	+/-0.050
Nonrepeatability, % Rated Output	+/-0.010	+/-0.010	+/-0.010	+/-0.010	+/-0.010
Creep, % in 20 minutes	+/-0.025	+/-0.025	+/-0.025	+/-0.025	+/-0.025
Off-Center Load Sensitivity, %/inch	+/-0.250	+/-0.250	+/-0.250	+/-0.250	+/-0.250
Side Load Sensitivity, %	+/-0.250	+/-0.250	+/-0.250	+/-0.250	+/-0.250
Zero Balance, % Rated Output	+/-1.0	+/-1.0	+/-1.0	+/-1.0	+/-1.0
<b>TEMPERATURE</b>					
Range, Compensated, °F	+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
Range, Operating, °F	-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
Effect on Sensitivity, % Rdg/ °F	+/-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
Effect on Zero, % Rated Output/ °F	+/-0.0008	+/-0.0008	+/-0.0008	+/-0.0008	+/-0.0008
Effect on Zero, % Rated Output/ °C	+/-0.0015	+/-0.0015	+/-0.0015	+/-0.0015	+/-0.0015
<b>ELECTRICAL</b>					
Rated Output, mV/V, Nominal	2	4	4	4	4
Excitation Voltage, VDC Maximum	20	20	20	20	20
Input Resistance, Ohms	350	350	350	350	350
Output Resistance, Ohms	350	350	350	350	350
Insulation Resistance, Megohm	5000	5000	5000	5000	5000
Bayonet Connector	PT02E-10-6P (MS3112E-10-6P)				
<b>MECHANICAL</b>					
Safe Overload Range, % Rated Capacity	+/-150	+/-150	+/-150	+/-150	+/-150
Weight lb	1.0	2.9	9.1	13.5	23.5
Weight kg	0.5	1.3	4.1	6.1	10.7
Weight w/base lb	2.5	6.5	21.5	27.5	52.5
Weight w/base kg	1.1	3.0	9.8	12.5	23.8
Flexure Material	Aluminum	Steel	Steel	Steel	Steel

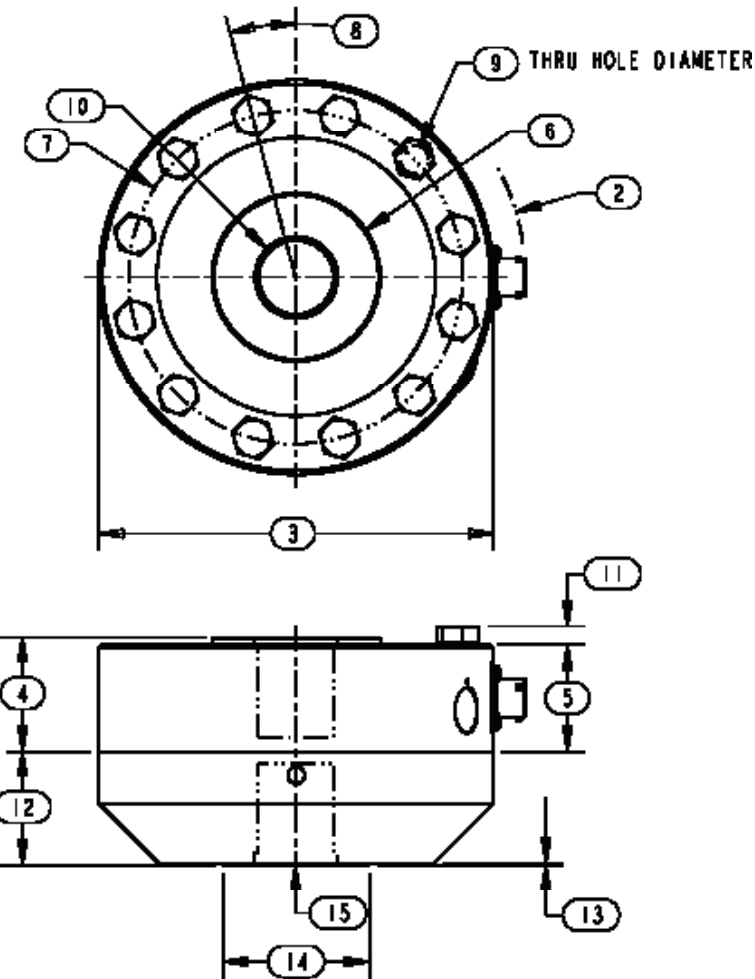
19 Waterman Ave. Toronto, Ont. M4B1Y2  
 Tel: 416-445-5500 Fax: 416-445-1170  
 Toll Free: 1-800-465-1600  
 Email: sales@intertechnology.com  
 Website: www.intertechnology.com

**INTERTECHNOLOGY**  
 INC.  
 1-800-465-1600

# SHEAR WEB (SW) SERIES LOAD CELLS

## DIMENSIONS

Model	SW10 300, 500, 1K, 2K lbf	SW10M 1.5, 2.5, 5, 10 kN	SW10 5K, 10K lbf	SW10M 25, 50 kN	SW20 25K, 50K lbf	SW20M 100, 250 kN	SW22 60K lbf	SW22M 270 kN	SW30 100K lbf	SW30M 300,500 kN
Dimensions	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
1.	2.51	63.5	2.51	63.5	3.51	88.9	4.50	114.3	4.50	114.3
2.	R 2.53	R 64.3	R 2.53	R 64.3	R 3.50	R 88.9	R 3.50	R 88.9	R 4.50	R 114.3
3.	4.12	104.8	4.12	104.8	6.06	154.0	6.06	154.0	8.00	203.2
4.	1.38	34.9	1.38	34.9	1.75	44.5	2.25	57.2	2.50	63.5
5.	1.25	31.8	1.25	31.8	1.63	41.3	2.13	54.1	2.25	57.2
6.	1.29	32.8	1.29	32.8	2.34 25K 2.58 50K	59.4 100kN 65.6 250kN	2.58	65.6	3.76	95.6
7.	3.50	88.9	3.50	88.9	5.13	130.3	5.13	130.3	6.50	165.1
8.	22.5°	22.5°	22.5°	22.5°	15°	15°	15°	15°	11.25°	11.25°
9.	.28 8 Places	7.1 8 Places	.28 8 Places	7.1 8 Places	.41 12 Places	10.3 12 Places	.47 12 Places	11.9 12 Places	.53 16 Places	13.5 16 Places
10.	1/2-20 1.12 Deep	M12 x 1.25 28.5 Deep	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 1/2 - 12 2.0 Deep	M36x 2 50.8 Deep	1 3/4-12 2.20 Deep	M42 x 2 55.9 Deep
11.	0.18	4.7	0.18	4.7	0.29	7.5	0.31	7.9	.40	10.2
12.	1.13	28.6	1.13	28.6	1.75	44.5	2.25	57.2	2.00	50.8
13.	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8
14.	1.25	31.8	1.25	31.8	2.25	57.2	3.00	76.2	3.00	76.2
15.	1/2-20 .88 Deep	M12 x 1.25 22.4 Deep	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 1/2 - 12 2.00 Deep	M36 x 2 50.8 Deep	1 3/4-12 1.75 Deep	M42 x 2 44.5 Deep



**TOVEY**  
 ENGINEERING INNOVATION

## 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

© 2011 Tovey Engineering, Inc.