

# SHEAR WEB LOAD CELLS

## CALIBRATION STANDARD (CS) SERIES FORCE TRANSDUCERS

### FEATURES

- Designed for Metrology Lab Use
- Meets ASTM E74 Requirements
  - Class AA to 10% of Range (Most Models)
  - Class A to 2% of Range
- Lowest Creep
- Lowest Sensitivity to Rotation Error
- Lowest Sensitivity to Reproducibility Errors
- All Features Meet or Exceed SWP-M Series



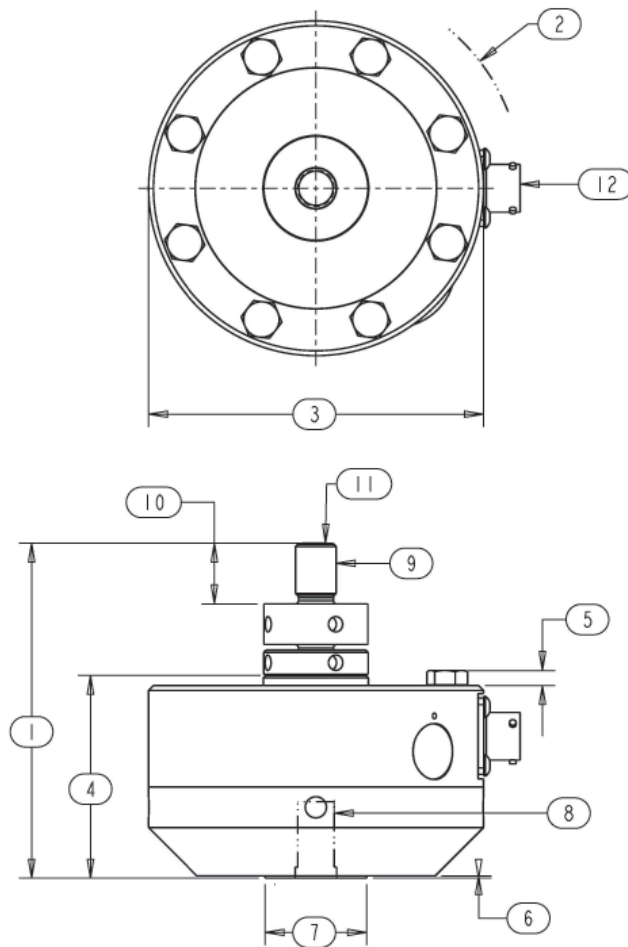
### SPECIFICATIONS

PARAMETERS	MODEL			
	CS10	CS10	CS20	CS30
	300, 500 1K, 2K	5K, 10K	25K, 50K	100K
<b>CAPACITY (lbf)</b>				
Accuracy				
Lower Load Limit % of R.O.	2.0	2.0	2.0	2.0
Static Error Band, % R.O.	+/- .02	+/- .03	+/- .03	+/- .03
Nonlinearity, % R.O.	+/- .02	+/- .03	+/- .03	+/- .03
Hysteresis, % R.O.	+/- .02	+/- .04	+/- .04	+/- .04
Nonrepeatability, % R.O.	+/- .005	+/- .005	+/- .005	+/- .005
Creep, % in 20 minutes	+/- .015	+/- .015	+/- .015	+/- .015
Off-Center Load Sensitivity, %/inch	+/- .05	+/- .05	+/- .05	+/- .05
Side Load Sensitivity, %	+/- .05	+/- .05	+/- .05	+/- .05
Zero Balance, % R.O.	+/- 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
Range, Operating, °F	-65 to +200	-65 to +200	-65 to +200	-65 to +200
Effect on Sensitivity, % Rdg/100°F	+/- .08	+/- .08	+/- .08	+/- .08
Effect on Zero, % R.O./100°F	+/- .08	+/- .08	+/- .08	+/- .08
<b>Electrical</b>				
Rated Output, mV/V, Nominal	2.0	4.0	4.0	4.0
Excitation Voltage, VDC	10	10	10	10
Input Resistance, Ohms	350	350	350	350
Output Resistance, Ohms	350	350	350	350
Insulation Resistance, Megohm	5000	5000	5000	5000
<b>Mechanical</b>				
Safe Overload Range, % R.O.	+/- 150	+/- 150	+/- 150	+/- 150
Weight (lbs.)	2.8	6.9	23.6	57.8
Flexure Material	Aluminum	Steel	Steel	Steel

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## DIMENSIONS

Review Drawing (in inches)	MODEL			
	CS10 300, 500 1K, 2K	CS10 5K, 10K	CS20 25K, 50K	CS30 100K
	<b>CAPACITY (lbf)</b>			
1. Height Total	4.13	4.13	6.32	7.85
2. Max. Clearance Radius	2.53	2.53	3.50	4.50
3. Cell and Base Diameter	4.12	4.12	6.06	8.00
4. Cell and Base Height (to Hub)	2.51	2.51	3.50	4.25
5. Bolt Head Protrusion	.18	.18	.29	.40
6. Base Step Height	.03	.03	.03	.03
7. Base Step Diameter	1.25	1.25	2.25	3.00
8. 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.
9. Adapter Thread	1/2 - 20	5/8 - 18	1 1/4 - 12	1 3/4 - 12
10. Adapter Thread Depth	.75	.75	1.50	1.75
11. Adapter End Radius	6.00	6.00	6.00	12.00
12. Connector	MS3112_E10	MS3112_E10	MS3112_E10	MS3112_E10 w/protector



## 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

**THE TECHNICAL LEADER IN LOAD CELLS AND FORCE MEASUREMENT**