

Sample Calculation

Pre-Calibration of Weight Indicator using Simulator

Load Cell Specifications: Load Cell Capacity: 1000lbs
Rated Output: 3mV/V
Actual Output: 3.0015mV/V

1) Calculate Units Per mV

$$\frac{\text{Load Cell Capacity}}{\text{Actual Output}} = \text{Units Per mV} \quad \frac{1000\text{lbs}}{3.0015\text{mV/V}} = 333.1667\text{lbs}$$

2) Calculate Units Per Step of Rotary Selection

$$\text{Units Per mV} \times \text{Rotary Selection} \quad 333.1667 \times .2 = 66.63334$$

Results:	Rotary Selection	Reading on Weight Indicator
	0.0	000.00000
	0.2	066.63334
	0.4	133.26668
	0.6	199.90002
	0.8	266.53336
	1.0	333.16670
	1.1	399.80004
	×	×
	3.0	999.50010

3) Connect Excitation and Signal Terminals to Weight Indicator

Use Sense leads from indicator when possible
Connect +Sense to +EXC Terminal Post
Connect -Sense to -EXC Terminal Post

4) Power Up Weight Indicator and allow 5 to 10 minutes warm up time.

5) Refer to Weight Indicator's Service Manual and follow calibration instructions using the results from Steps 1 and 2

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CONTROLWEIGH TRANSDUCER SIMULATOR Model TS-16VLW



Made in the U.S.A.

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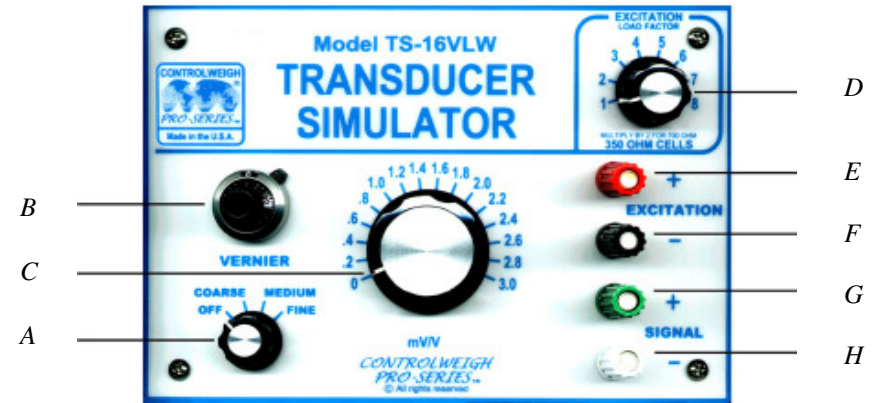
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Product Specifications

Model#:	TS-16VLW	
Impedance:	350 ohms nominal	
Output Ranges:	<i>Fixed rotary switch</i> 0 to 3 mV/V in 15 steps of .2 mv/v <i>10 turn vernier with locking graduated dial</i>	
	OFF:	Rotary selection + 0.0 mV/V
	FINE:	Rotary selection - 0.01 mV/V to +0.2 mV/V
	MEDIUM:	Rotary selection - 0.04 mV/V to +1.0 mV/V
	COARSE:	Rotary selection - 0.08 mV/V to +3.0 mV/V
Accuracy:	<i>Typical</i>	<i>Max</i>
	± 0.007% of full scale	± 0.015% of full scale
	± 0.00021 mv/v	± 0.00045 mv/v
	or ±1 microvolt, whichever is greater	
Zero Offset:	<i>Typical</i>	<i>Max</i>
	± 0.00009 mv/v	± 0.0005 mv/v
Temp. Coefficient:	± 5 PPM/°C	
Calibration:	<i>This instrument has been calibrated using standards with accuracies traceable to the National Institute of Standards and Technology, derived from natural physical constants, derived from ratio measurements, or compared to consensus standards.</i>	
	<i>A Test Uncertainty Ratio of at least 4:1 is maintained, and complies with applicable requirements of ANSI/NCSL 2540-1, ISO 9002, and MIL-STD-45662A.</i>	
Excitation:	15v ac/dc max (43.75 - 350 ohm load) Load selection of: 1 to 8 350 ohm load cells 2 to 16 700 ohm load cells	
Termination:	Binding posts - accepts standard banana plug or up to No. 14 wire	
Weight:	2Lbs.	
Dimensions:	6.5"W x 8.25"L x 3.6"D	
Enclosure:	Watertight, dustproof case with seal	

Operation & Controls



A - Vernier Selection

OFF: Rotary selection with Calibrated Output
 FINE: Rotary selection - 0.01 mV/V to +0.2 mV/V
 MEDIUM: Rotary selection - 0.04 mV/V to +1.0 mV/V
 COARSE: Rotary selection - 0.08 mV/V to +3.0 mV/V

B - Locking Vernier Dial

10 Turn adjustment of selected ranges listed above

C - Rotary Selection

Fixed Calibrated steps of 0.2mV/V from 0 to 3.0mV/V

D - Excitation Load Factor

Rotary selection of: 1 to 8 350 ohm load cells or 2 to 16 700 ohm load cells
 Simulates load of multiple transducers in parallel

E - +Excitation Input

F - -Excitation Input

G - +Signal Output

H - -Signal Output

Warning: *Excitation Load Factor should be set to 1 when not performing power supply load testing.*

Make sure power supply will not be overloaded when selecting ranges greater than 1.