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

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

2) Calculate Units Per Step of Rotary Selection

Units Per mV **X** Rotary Selection 333.1667 **X** .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

http://www.controlweigh.com *Email: info@controlweigh.com*

CONTROLWEIGH

TRANSDUCER SIMULATOR

Model TS-16V

Made in the U.S.A.

1-800-745-4072

847-540-8260

FAX: 847-540-8270

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Product Specifications

Model#: TS-16V

Impedance: 350 ohms nominal

Output Ranges: *Fixed rotary switch*
0 to 3 mV/V in 15 steps of .2 mv/v
10 turn vernier with locking graduated dial
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:

Typical	*Max*
± 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:

Typical	*Max*
± 0.00009 mv/v	± 0.0005 mv/v

Temp. Coefficient: ± 5 PPM/^{o}C

Calibration: *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.*

Excitation: 15v ac/dc max (43.75 - 350 ohm load)

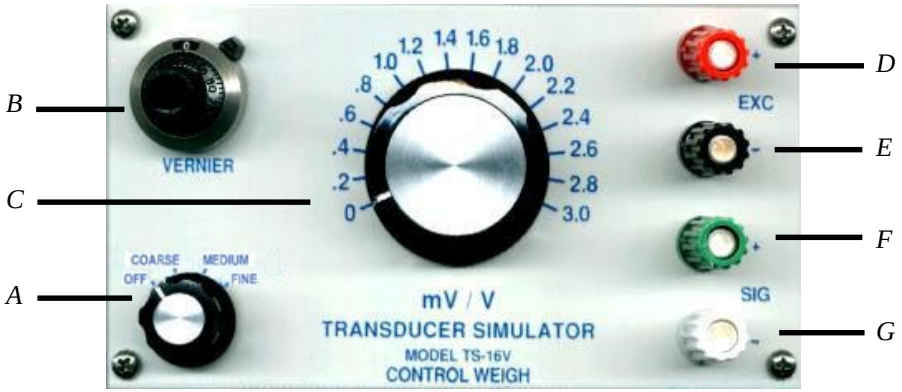
Termination: Binding posts - accepts standard banana plug or up to No. 14 wire

Weight: 1Lbs.

Dimensions: 5.9"L x 3.2"W x 2.75"H

Enclosure: *ABS Thermoplastic Case with Aluminum lid*

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 Input**

E - **-Excitation Input**

F - **+Signal Output**

G - **-Signal Output**