

Pre-Calibrated DQ-1000A

If you have received a DQ-1000A pre-calibrated to a load cell, please refer to the calibration sheet indicating the lb/volt (or kg/volt) on how to compute the load from the measured voltage. For example, in the graph shown below for a 2000 lb load cell, if the voltage measured between pins 6 and 7 is 3.0 V, then

$$\text{Load, L} = (3.0 * 509.81) - 223.96 = 1305.47 \text{ lb.}$$

Depending on your setup, the voltage at zero load may be different from the one when the load cell was calibrated – for example, if you are calibrating in tension, your preload from fixtures etc may be different. If you have a preload that needs to be zeroed out, simply take the difference in voltages, and multiply by the slope (in this case 509.81).

For example, with a preload (to be zeroed out), if the measured voltage is 0.8 V, and with an unknown load L1, the measured voltage is 2.0 V, then

$$L1 = (2.0 - 0.8) * 509.81 = 1.2 * 509.81 = 611.78 \text{ lb.}$$



$$\text{Load (lb.)} = (5.0981e+02) * V - 2.2396e+02$$

Sample DQ-1000A calibration graph for a 2000 lb load cell