Shunt Calibration Calculation Example

If $\frac{1}{R_{gsh}} = \frac{1}{R_g} + \frac{1}{R_{sh}}$ Then $R_{sh} = \frac{R_g \times R_{gsh}}{R_g - R_{gsh}}$

where:

R_g = 350 = Resistance of the strain gage, ohms
2000 ppm = 0.002 = Full scale deviation of the meter
D = 350 x 0.002 = 0.7 = Corresponding resistance change, ohms
R_{gsh} = 350 – 0.7 = 349.3 = Corresponding resistance of the shunted gage
R_{sh} = Resistance of a shunt R_{sh} causing the change D

$$R_{sh} = \frac{(350 \times 349.3)}{(350 - 349.3)} = 174{,}650 \text{ ohms}$$

Doc. No.: 63521
Revision: 08-Oct-2013