
SGS-350

STRAIN GAUGE SIMULATOR

FEATURES

- Power supply from 5 to 10 V
- Sensitivity from 0 to 2 mV/V
- Linearity to 0.5%
- Impedance: 350 Ohms
- 10-turn potentiometer
- Aluminum case



DESCRIPTION

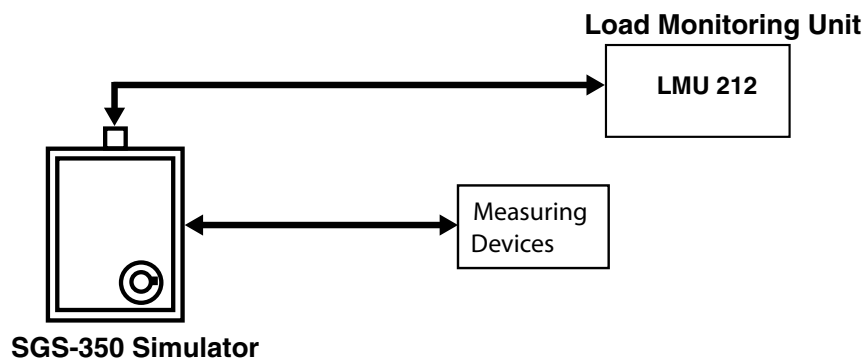
The Magtrol SGS-350 is a strain gauge bridge simulator made entirely with passive components and an aluminum housing designed for use in extremely harsh environments.

The SGS-350 can be used in place of a strain gauge sensor with 0 to 2mV/V sensitivity, in order to test or calibrate an LMU Series Load Monitoring Unit, including threshold overload testing.

The SGS-350 can be supplied with a 5 or 10 V DC power supply.

Combined with an LMU Series Load Monitoring Unit, the strain gauge simulator allows operational tests and settings to be performed prior to use on site.

SYSTEM CONFIGURATION



BLOCK DIAGRAM

Test configurations

The simulator requires 5 or 10 VDC, supplied through a cable from the LMU or banana jacks (red and blue) from an external source.

The potentiometer can adjust the Load Monitoring Unit by simulating the load applied to the sensor installed on the site.

The Load Monitoring Unit is set in the workshop or laboratory with the same values as would be provided by the sensor located on the site (see example).

The SGS-350 can simulate loads for sensor sensitivity ranging from 0 to 2 mV / V.

Example of use

To 100T sensor with a sensitivity of 1.5 mV/V we want to simulate a load of 35T.

The potentiometer is set to P% of full scale using the formula:

$$P = K / 2 \times R / N \times 100$$

With

P = % adjustment of the potentiometer

K = sensitivity of the sensor

R = load sensor

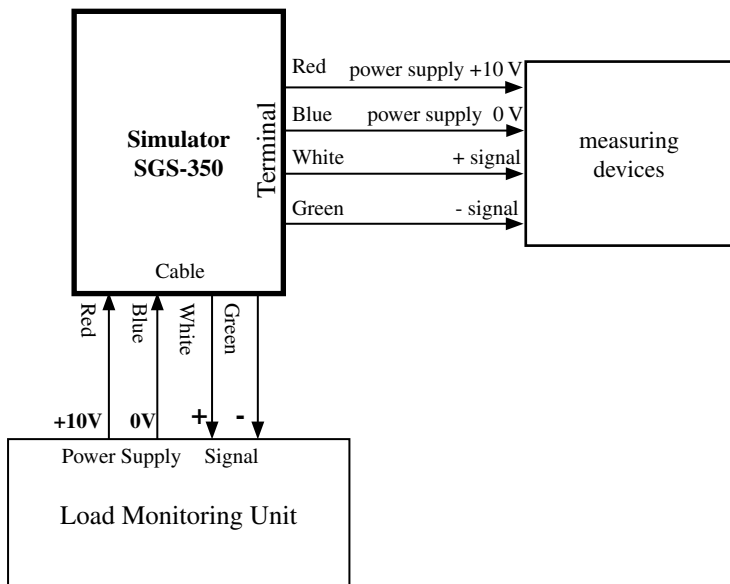
N = nominal value of the sensor

In our example:

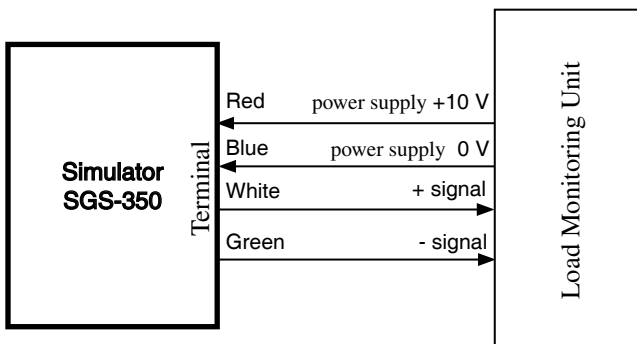
$$P = 1.5 / 2 \times 35 / 100 \times 100$$

P = 26.25% that means we have to move the 10 turn-potentiometer 2,6 turns

Load monitoring unit connected by cable

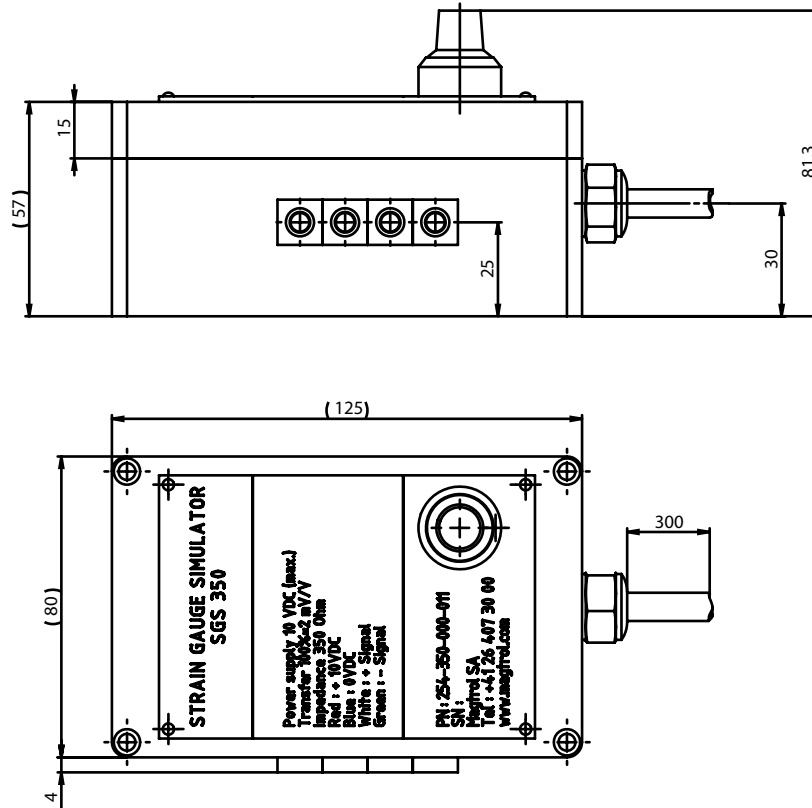


Load monitoring unit connected with banana plugs



DIMENSIONS

Part Number: 254-350-000 011



Due to the continual development of our products, we reserve the right to modify specifications without forewarning.



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