SGS-350
STRAIN GAUGE SIMULATOR

FEATURES

- Power Supply: 5 ... 10 V DC
- Sensitivity: 0 ... 2 mV/V
- Linearity: 0.5 %
- Impedance: 350 Ohms
- 10-turn Potentiometer (with counter)
- Aluminum Housing

Fig. 1: SGS-350 | Strain Gauge Simulator

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 ... 2 mV/V sensitivity, in order to test or calibrate an LMU 210 Series Load Monitoring Unit (or other model), including threshold overload testing.

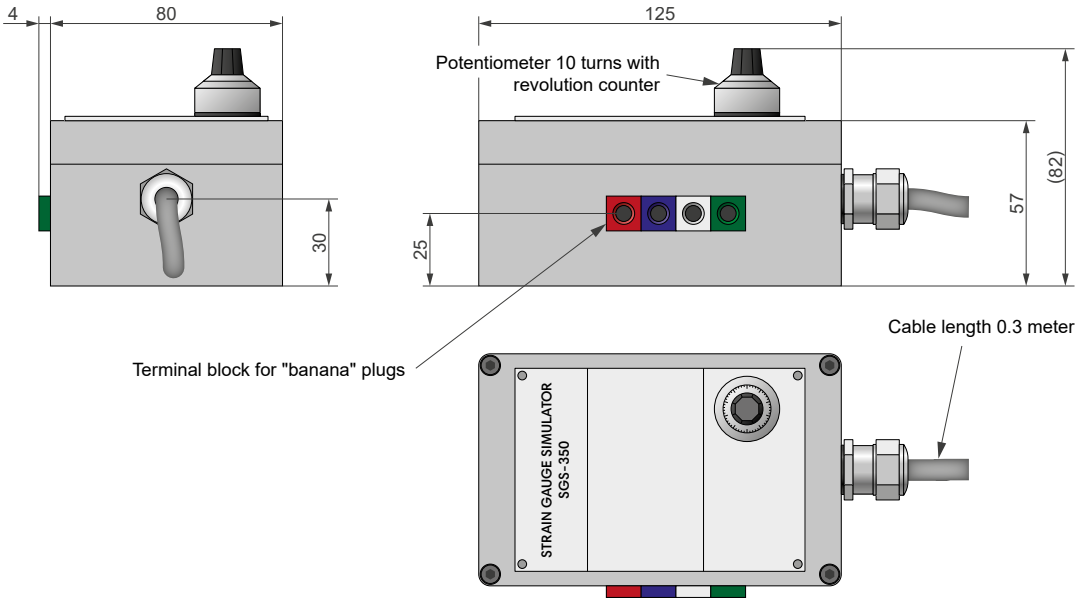
The SGS-350 can be supplied with 5 ... 10 V DC power supply.

APPLICATIONS

Combined with an LMU 210 Series - Load Monitoring Unit, the strain gauge simulator allows operational tests and settings to be preformed prior to use on site.

Its aluminum housing provides the SGS-350 with reinforced protection and allows it to be used in particularly harsh environments.

DIMENSIONS



BLOCK DIAGRAM

TEST CONFIGURATION

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

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

EXAMPLE OF USE

To 100 t sensor with a sensitivity of 1.5 mV/V we want to simulate a load of 35 t. The potentiometer is set to P % of full scale using the formula:

$$P = \frac{K}{2} \cdot \frac{R}{N} \cdot 100$$

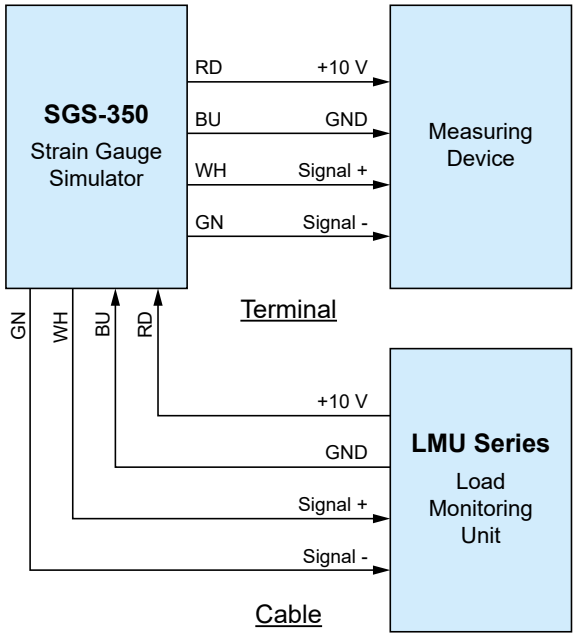
P = % adjustment of the potentiometer
K = sensitivity of the sensor
R = load sensor
N = nominal value of the sensor

In our example:

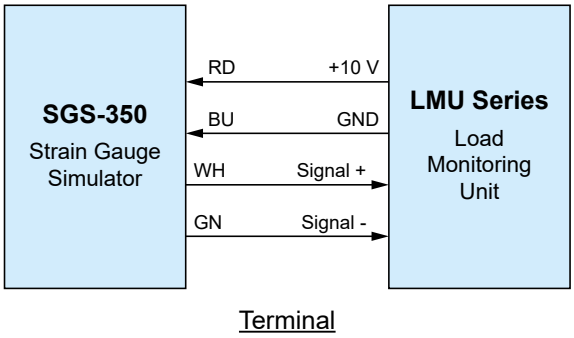
$$P = \frac{1.5}{2} \cdot \frac{35}{100} \cdot 100 = 26.25$$

P = 26.25 % wich means we need to turn the 10 revolution potentiometer, by 2.6 turns.

LMU CONNECTED BY CABLE



LMU CONNECTED WITH TERMINAL



ORDERING INFORMATION

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ISO 9001 BUREAU VERITAS Certification
SGS-350 - FR 03/2023