

MSS-1010

Multi-Sensor Simulator



Features

- Simulates various sensor signals
- Tachometer TTL and OSO[®] output
- BOV sensor test
- Menu-driven operation
- Multi language menu
- Metric and imperial units
- PC connection
- Battery operated

Application note

Suitable for inspecting measurement lines according to ISO 10816 standards. Device is especially designed for Condition Monitoring Systems (CMS) and/or Vibration Monitoring Systems (VMS) that connect to SCADA Systems.



Description

MSS-1010 is a battery operated instrument that is used to electronically simulate variety of outputs from various types of sensors.

MSS-1010 uses a menu-driven 4x16 character LCD display to establish the appropriate settings. Key panel contains five sealed switches marked with arrows, E (enter), Back and ON/OFF.

Power is supplied from 4 AA rechargeable, internally mounted Ni-MH batteries which can be recharged with a regulated 9Vdc source.

Connection to PC is established over the front mounted LEMO connector. PC mode will be automatically started after inserting proper cable into device.

Output signal is user selectable from: single-ended voltage (mV), single-ended charge (pC), differential charge (pC), current-sinking IEPE (ICP[®]), tachometer (TTL), OSO[®] (Optical Speed Output) and BOV (Bias Output Voltage). Frequency range is 1Hz to 1kHz; RMS output voltage is from 10mV to 10V or 10pC to 10.000pC. Outputs can be provided in acceleration, velocity, displacement, voltage or charge.

Specifications

Outputs

Type

Single-ended voltage (mV)
IEPE (ICP[®]) - current sinking
Single-ended charge (pC)
Differential charge (pC)
Tachometer (TTL)
OSO[®] - Optical Speed Output
BOV - Bias Output Voltage

Frequency range

1Hz to 1kHz, accuracy $\pm 1\%$

Amplitude

Adjustable up to 10 000mV RMS

Distortion

Less than 1%, 10Hz to 1kHz, 10mV to 10.000mV
Less than 1%, 2Hz to 1kHz, 10mV to 10.000mV

Transfer characteristics

Amplitude accuracy

$\pm 1.0\%$ of settings on any range

Amplitude stability

0.03%/°C maximum change from -10°C to +65°C

Frequency accuracy

$\pm 0.1\%$ of settings on any range

Frequency stability

$\pm 0.5\%$ of maximum change from -10°C to +65°C

Harmonic distortion

1% maximum, from 10Hz to 1kHz

Environmental characteristics

Temperature

Operating

-10°C to +65°C

Storage

-18°C to +65°C

Humidity

95% R.H. maximum

Power

Battery

4x AA rechargeable Ni-MH supplied

Autonomy

More than 5 hours when fully charged

Physical characteristics

Dimension

196mm x 100mm x 40mm

Weight

0.5kg typical

Case

Molded plastic case

Connection

mV, IEPE, BOV and Tachometer - standard BNCs
Charge (single-ended and differential) - Microdots
USB - LEMO

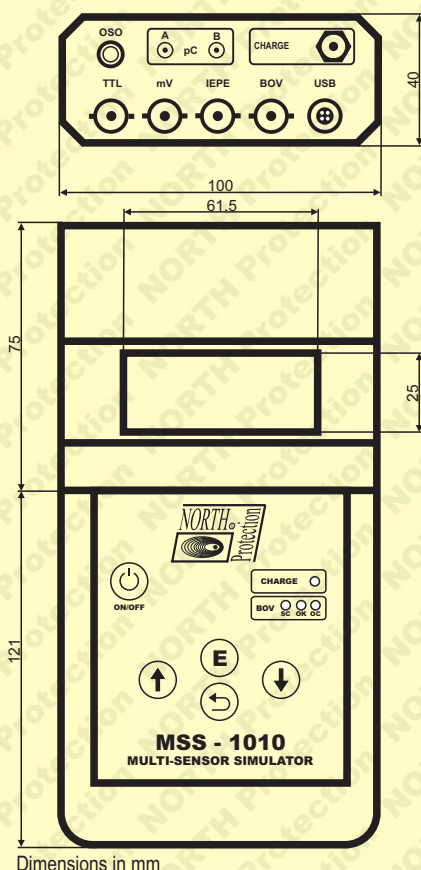
Front panel controls

Five sealed switches (arrows, E, Back and ON/OFF)

Front panel display

4 line LCD panel with 64 character

NOTE: All technical data can be changed without notice.



Dimensions in mm