MSC-1020P

Precision Multi Signal Calibrator

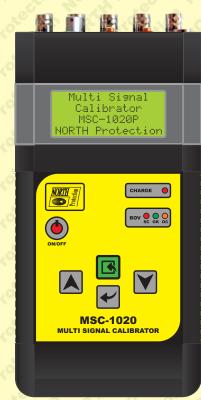
Features

- · Simulates various sensor and transmitter signal outputs
- Fully compliant with requirements of ISO 10816 standards
- Operates in two modes: stand-alone and PC based
- The software includes a sensor/transmitter database*
- · Automatic creation of reports in PC mode enabled*
- Loop powered current source output
- Tachometer TTL and OSO[®] output
- BOV test of IEPE (ICP®) sensors supported
- Menu-driven operation
- Multi language menu
- Metric and Imperial units
- PC connection
- Battery operated
- * Under development

Application Note

MSC-1020P Precision Multi Signal Calibrator is suitable for checking and calibration of measuring lines for dynamic parameters analysis, such as vibration analysis, structural analysis, etc. Function BOV (Bias Output Voltage) allows quick verification of IEPE (ICP®) sensors and signal cables functionality. Device is especially designed for Condition Monitoring Systems (CMS) and/or Machinery Monitoring Systems (MMS) that are independent or connect to SCADA





Description

MSC-1020P Precision Multi Signal Calibrator is a battery operated instrument which is used to electronically simulate outputs from various types of sensors and transmitters.

MSC-1020P Precision Multi Signal Calibrator uses a menu-driven 4x16 character LCD display to establish appropriate settings. The key panel contains five sealed buttons marked with Arrows, 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 compatible connector. PC mode will be automatically started after inserting proper cable into device.

Output signal is user selectable from the following: single-ended voltage (mV), single-ended charge (pC), differential charge (pC), current-sinking IEPE (ICP®), loop powered current source (mA), tachometer (TTL), flow (TTL), OSO® (**O**ptical **S**peed **O**utput) and BOV (**B**ias **O**utput **V**oltage). Frequency range is 1Hz to 10kHz; RMS output voltage is from 10mV to 10.000mV or 10pC to 10.000pC. Outputs can be provided in acceleration, velocity, displacement, voltage or charge.

Specifications Input/Outputs

Output Types Single-ended Voltage (mV)

IEPE (ICP®) - Current Sinking Loop powered Current Source (mA)

Single-ended Charge (pC)
Differential Charge (pC)
Tachometer (TTL)
Flow Meter (TTL)

OSO® - Optical Speed Output BOV - Bias Output Voltage

Frequency Range 1Hz to 10kHz

Amplitude 10mV to 10.000mV RMS; 10pC to 10.000pC

Transfer Characteristics

Amplitude accuracy ± 0.1% of settings on any range

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

Frequency accuracy ± 0.02% of settings on any range

Frequency stability \pm 0.5% of maximum change from -10°C to +65°C Total harmonic distortion \pm 0.1% 1Hz to 2kHz; \pm 0.15% 2kHz to 10kHz;

Environmental Characteristics

Temperature

Input Type

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, mA and Tachometer - BNCs

Charge (single-ended and differential) - Microdots

USB - ODU (LEMO compatible)

Front Panel Controls Five buttons (Arrows, Enter, Back and ON/OFF)

Front Panel Display 4 line LCD panel with 64 character

NOTE: All technical data can be changed without notice.