

MSC-1015

Multi Signal Calibrator



Features

- Simulates various sensor and transmitter signals
- Loop powered current source output
- 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 are independent or connect to SCADA Systems.



Description

MSC-1015 is a battery operated instrument which is used to electronically simulate outputs from various types of sensors and transmitters.

MSC-1015 uses a menu-driven 4x16 character LCD display to establish appropriate settings. The 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 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[®] (Optical Speed Output) and BOV (Bias Output Voltage). Frequency range is 1Hz to 10kHz; 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	Output
	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, accuracy $\pm 0.5\%$
Amplitude	Adjustable from 10mV to 10 000mV RMS
Distortion	$\leq 1\%$, 10Hz to 10kHz, 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	$\leq 1\%$ from 10Hz to 10kHz

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, mA and Tachometer - 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.