

PERFORMANCE SPECIFICATION
 SENSOR SIMULATOR
 4840

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76117	A	8/3/22	NAD	Update Per Vendor Request	DAM	53057

1.0 DESCRIPTION

The 4840 Sensor Simulator is a battery operated, portable instrument designed to simulate the typical electrical signals of commonly available vibration and pressure transducers. The unit provides output signals which mimic voltage and charge mode accelerometers as well as charge output differential pressure transducers.

2.0 ELECTRICAL SPECIFICATION

- 2.1 OUTPUTS
 Single-ended charge (pC)
 Differential Charge (pC)
 Differential Bridge s+ and s- (mV)
 Single-ended voltage (mV)/IEPE current sinking (mV)
- 2.2 FREQUENCY
 Output signals 1 Hz – 20 kHz (Resolution of 0.5 Hz)
- 2.3 AMPLITUDE
 Adjustable up to 10 to 10,000 pC or mV pk

3.0 TRANSFER CHARACTERISTICS
3.1 AMPLITUDE (for levels \geq 100 mV or pC)
3.1.1 ACCURACY OF SETTING, all outputs, at a reference frequency of 100 Hz

<2 mV or 2 pC	>10%
2 mV or 2 pC - 10 mV or 10 pC	\leq 5%
10 mV or 10 pC - 10 KmV or 10 KpC	\leq 1%

3.1.2 FREQUENCY RESPONSE

1 Hz to 10 kHz	\pm 1% (referred to 100 Hz)
10 kHz to 20 kHz	\pm 2% (referred to 100 Hz)

3.1.3 HARMONIC DISTORTION

All outputs < 1%, 20 Hz to 20 kHz, 100 mV to 10,000 mV or pC pk

3.1.4	AMPLITUDE STABILITY	0.0004% /°C (0 to +60°C) 0.0002% /°F (+32 to +140°F)
3.2	FREQUENCY STABILITY	< 4 ppm/°C < 2 ppm/°F
4.0	<u>ENVIRONMENTAL CHARACTERISTICS</u>	
4.1	OPERATING TEMPERATURE (discharging)	-10 to +65°C (+14 to 140°F)
4.2	OPERATING TEMPERATURE (charging)	-10 to +45°C (+14 to 113°F)
4.3	STORAGE	-5 to +35°C (+23 to 95°F)
4.4	HUMIDITY	95% R.H. maximum
5.0	<u>POWER</u>	
5.1	INPUT	12 VDC (1.5A minimum)
5.2	SOURCE	Internal rechargeable Lithium-Ion battery Supplied with 12 V universal power supply
6.0	<u>PHYSICAL CHARACTERISTICS</u>	
6.1	DIMENSIONS	225 mm (L) X 102 mm (W) x 41 mm (D)
6.2	WEIGHT	450 g ±5%
6.3	CASE	Molded Plastic
6.4	CONNECTIONS	
	Single-ended Charge	Standard BNC
	Single-ended Voltage	Standard BNC
	Differential Charge	Differential BNC (Twinax)
	Differential Bridge	5 pin Binder connector
6.5	CONTROLS	On/Off toggle switch Keypad panel with 8 switches (IP65 rated)
6.6	DISPLAY	128 X64 backlit liquid crystal graphical display
7.0	<u>INCLUDED ACCESSORIES</u>	

76124
EDVEHM2108
EDVEHM2107

EDVEW1400
EDVEP695
EDVEP316
EDVEJ1224
76125

EV 066

Calibration Certificate
Carry Case
12 V universal power supply with charger and plug
adaptors (UK/US/EU/AU)
USB Interface cable
10/32 to BNC adaptor
Mating Twinax BNC Connector
Mating Binder connector
4840 Instruction Manual (available for download on
website)
Application software for 4840 (available for download
on website)

8.0 **COMPLIANCE**

FCC/ CE / UKCA / RoHS