Datasheet

OVERVIEW

The unit is a small, handy, completely self-contained vibration reference source which can be conveniently used to validate the entire channel of transducers through measurement, monitoring or recording systems.

FEATURES AND BENEFITS

- Small and completely self-contained, ideal for field check of accelerometers, velocity transducers and proximity probes
- Lightweight, industrial Pelican® Storm Case³
 dramatically improves durability and portability
- Rugged shaker element design with carbon fiber composite armature flexures
- Provides NIST traceable transducer verification from 7
 Hz to 10 kHz



General

Frequency Range (operating, 100 gram payload):

7 Hz to 10 kHz 420 to 600000 CPM

Maximum Amplitude (100 Hz, with no payload):

20 g pk (196 m/s2 pk) 15 in/s pk (380 mm/s pk) 50 mils p-p (1270 µm p-p)

Maximum Payload1: 800 grams

Accuracy of Readout

Acceleration (30 Hz to 2 kHz): ±3%

Acceleration (7 Hz to 10 kHz): ±1 dB

Velocity (10 Hz to 1000 Hz): ±3%

Displacement (30 Hz to 150 Hz): ±3%

Amplitude Linearity (100 gram payload, 100 Hz):

< 1% up to 10 g pk

Waveform Distortion (100 gram payload, 30 Hz to 2 kHz):

< 5% THD (typical) up to 5 g pk

Units of Readout

Acceleration: g pk, g RMS, m/s2 pk, m/s2 RMS

Velocity: mm/s pk, mm/s RMS, in/s pk, in/s RMS

Displacement: mils p-p, μm p-p

Frequency: Hz, CPM



Input/Output

External Source In (Max): 1V AC RMS

Monitor Reference Out: 10 mV/g (nominal), buffered internal reference output

Power Requirements

Internal Battery (sealed solid gel lead acid):

12V DC, 4 amp hours

AC Power (for recharging battery): 110-240V, 50-60 Hz

Operating Battery Life²

100 gram payload, 100 Hz, 1 g pk: 18 hours

100 gram payload, 100 Hz, 10 g pk: 1 hour

Temperature

Operating 32° - 122° F (0° - 50° C)

Physical

Dimensions (H x W x D):

22 cm x 30.5 cm x 28 cm (8.5 in x 12 in x 10 in)

Weight: 8.2 kg (18 lb)

Sensor Mounting Platform Thread Size: 1/4-28

Notes:

- 1 Operating range reduced at higher payloads. Reference manual for full details.
- $2\,$ As shipped from factory in new condition.



HOW TO ORDER

MODEL	DESCRIPTION	CERTIFICATIONS
HI-913	Portable Shaker, variable frequency and amplitude control for accelerometers, velocity sensors and proximity probes, USB Data Transfer for a calibration test, rugged Pelican® Storm Case³, standard accessories and operates on a rechargeable battery.	(E

Notes:

3 Registered Trademark of Pelican Storm Cases

STANDARD ACCESSORIES

PART NO.	DESCRIPTION
	Power Cord and Plug Adapters (110-260 VAC, 50-60 Hz)
	Mounting Wrench
0228-0070-01	Stud, 1/4-28 to 1/4-28 UNF
0228-0070-05	Bushing, 1/4-28 to 10-32 UNC

NON STANDARD ACCESSORIES

PART NO.	DESCRIPTION
HI-223M (Metric units) HI-223E (English units)	Eddy Current Probe Test Kit
0205-0049	Mounting Spacer
0228-0136-01	Mounting Plate, Magnetic 2" Dia, 1/4" thick
0228-0141-01	Stud, 1/4-28 to M8 (Metric)
0228-0137-01	Adapter stud. 1/4-28 UNF to 3/8-24 (HI 5701VT)
0228-0075-01	4140 Steel Target (incl w/ 223/224 kits)
0228-0071-02	Velocity/Universal Transducer Adapter, w/screw
0228-0070-03	Bushing, 1/4-28 to 2-56 UNC
0228-0070-04	Bushing, 1/4-28 to 6-32 UNC

