

Micromate® Sound Level Microphone (Part No. 721A2301)

Introduction

The Sound Level Microphone for Micromate, also called a noise microphone, can perform unattended monitoring of noise in applications such as building activities, construction, traffic, and mining operations. The Micromate now lets you synchronize noise and vibration data on the same monitoring unit, making the Micromate a cost effective and flexible monitor for these applications.

The InstanTel® Sound Level Microphone for the Micromate meets the requirements for IEC 61672 Class 1, which includes A and C weighted specifications. It has a measuring range from 30 to 140 dB with a Fast or Slow response. The record mode can be set to Waveform Manual, Waveform (records up to 90 seconds once a preset trigger level has been exceeded), Histogram (with intervals from 2 seconds to 30 minutes) or Histogram Combo™ (combining histogram and waveform monitoring at the same time).

The microphone connects directly to the Microphone port of the Micromate. This microphone can be connected directly to the unit or using an extension cable up to 75 meters (250 feet) long.



Sound Level Microphone

Specifications

Weighting	A-Weight or C-Weight
Frequency Range	Up to 20 kHz
Response	Fast (125 ms) or Slow (1 s)
Resolution	0.05 dB (display limit 0.1dB)
Range	Automatic
Trigger Levels	33 dB to 140 dB
Temperature Range	-10° to 50°C (14° to 122°F)
Cable Length	2 m (6.5 ft)
Maximum Amplitude	160 dB



Waveform Event Report

Waveform Trigger Source
Trigger Level(s)
Pre-Trigger/Record Time
Sample Rate
Operator/Setup File Name

Vert at December 2, 2015 15:25:27
 Geo 0.500 in/s, Mic 50.0 dB(A)
 0.25 sec/1.0 sec(Fixed)
 1024 sps
 Operator/Tunneling.mmb

Serial Number/Model Number
Battery Level
Unit Calibration
Microphone Calibration
Event File Name

UM8999/Micromate ISEE 10.77
 3.8 volts
 November 24, 2015 by Instantel
 UA10081, December 2, 2015 by Field
 Calibration
 UM8999_2015120152527.IDFW

Notes
Location: Albert St Subway Station

Client: ACB Construction
User Name: John Smyth
General: Light Rail Transit Project
GPS Coordinates N45 25 18.0, W75 41 46.8

Post Event Notes Albert St. Waveform Report

Geophone
Peak Particle Velocity
Zero Crossing Frequency
Time (Relative to Trigger)
Peak Acceleration
Peak Displacement
Sensor Check
Frequency
Overswing Ratio
Peak Vector Sum

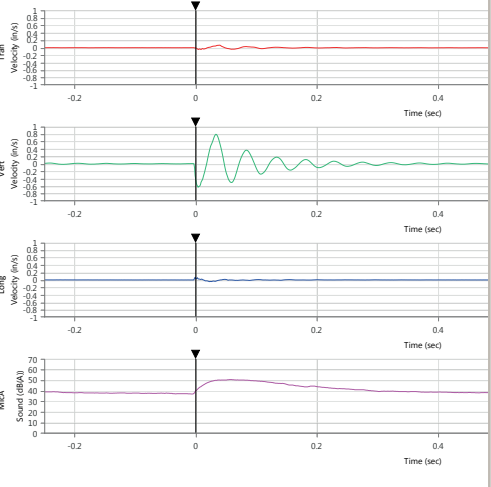
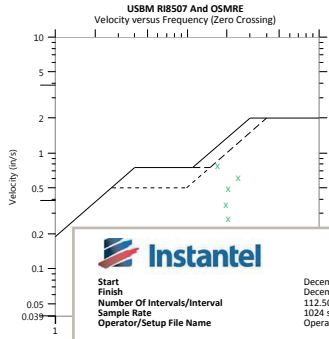
Tran 0.070 in/s
 17.1 Hz
 0.038 sec
 0.035 g
 0.001 in
 Passed
 7.3 Hz
 4.1
 0.795 in/s at 0.032 sec

Vert 0.793 in/s
 17.1 Hz
 0.032 sec
 0.572 g
 0.007 in
 Passed
 7.3 Hz
 3.9

Long 0.069 in/s
 N/A
 -0.002 sec
 0.113 g
 0.001 in
 Passed
 7.3 Hz
 3.6

Sound Level Microphone
A-Weight Fast

LMax 50.5 dB(A)
Time (Relative to Trigger) 0.055 sec
LMin 37.0
Sound (dB(A)) 37.0
Sensor Check Passed
MicA Test Amplitude 1077 mv



Histogram Event Report

Start December 2, 2015 15:32:36
Finish December 2, 2015 15:36:21
Number Of Intervals/Interval 112.50/2 sec
Sample Rate 1024 sps
Operator/Setup File Name Operator/Tunneling.mmb

Serial Number/Model Number UM8999/Micromate ISEE 10.77
Battery Level 3.8 volts
Unit Calibration November 24, 2015 by Instantel
Microphone Calibration UA10081, December 2, 2015 by Field Calibration
Event File Name UM8999_2015120152527.IDFW

Notes
Location: Albert St Subway Station

Client: ACB Construction
User Name: John Smyth
General: Light Rail Transit Project
GPS Coordinates N45 25 18.0, W75 41 46.8

Post Event Notes Albert St. Histogram Report

Geophone
Peak Particle Velocity
Zero Crossing Frequency
Date
Time
Sensor Check
Frequency
Overswing Ratio
Peak Vector Sum

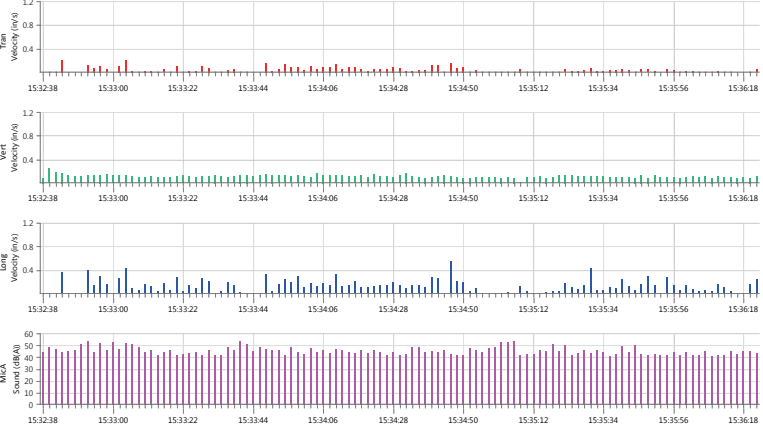
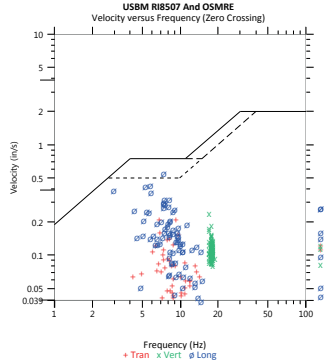
Tran 0.217 in/s
 6.8 Hz
 Dec 2, 2015 15:33:04
 Passed
 7.3 Hz
 4.1
 0.577 in/s at December 2, 2015 15:34:46

Vert 0.245 in/s
 17.1 Hz
 Dec 2, 2015 15:32:40
 Passed
 7.3 Hz
 3.9

Long 0.560 in/s
 7.4 Hz
 Dec 2, 2015 15:34:46
 Passed
 7.3 Hz
 3.5

Sound Level Microphone
A-Weight Fast

LMax 53.8 dB(A)
Time of Peak December 2, 2015 15:32:40
LMin 38.3
Sound (dB(A)) 38.3
Sensor Check Passed
MicA Test Amplitude 1073 mv



The World's Most Trusted Monitors — Vibration · Noise · Air Overpressure

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M7056 Rev 02 - Product Specifications are Subject to Change