



# CV9-CV

## 9 Channel Charge/IEPE Amplifier

The CV9 is a 9-channel charge/IEPE amplifier offering measurement flexibility when interfacing charge and IEPE vibration sensors with measurement systems with dynamic Voltage inputs.

Front-panel mount BNC connectors are used for both inputs and outputs, providing an easy and fast-setup solution using industry-standard cables.

The maximum output dynamic range is  $\pm 10V$  pk, each channel allows for the individual selection of input gain between settings of x1, x10, x100, enabling the measurement range of the sensor to be optimised to the input dynamic range of the measurement system.

### KEY FEATURES

- ✓ Charge or IEPE individual channel selection
- ✓ Short/open circuit warning indicator
- ✓ 3 selectable gain settings for each channel (x1, x10, x100)
- ✓ Front panel BNC Input/output connectors

### DEVICE OPTIONS

- ✓ 19" Rack Mount (CV9-CV-RM)
- ✓ Stackable Bench Top (CV9-CV-BT)

### INCLUDED WITH DEVICE

- ✓ 110V/230V AC to +24V DC power adapter

### DEVICE OPTIONS

- ✓ BNC to Microdot adapter
- ✓ BNC to Microdot low-noise cable assembly

### CV9-CV Front Panel - Bench Top



### CV9-CV-RM Front Panel - 19" Rack Mount Configuration



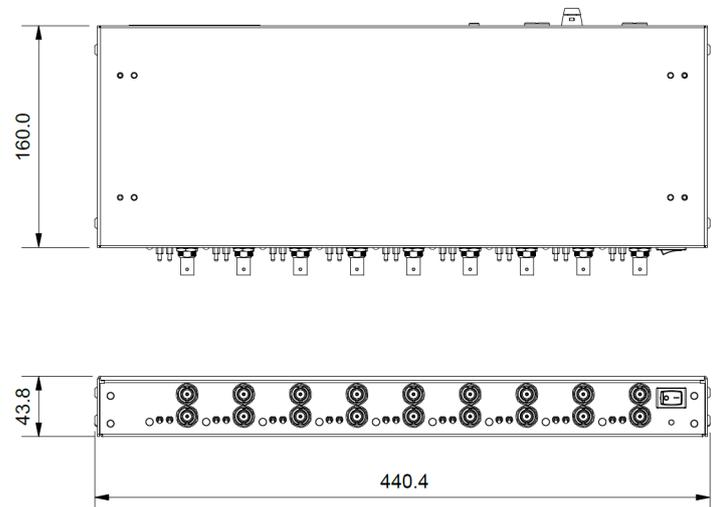
### CV9-CV-BT Front Panel - Bench Top Configuration with Stacking Features



### CV9-CV Rear Panel



### CV9-CV Dimensions



# TECHNICAL SPECIFICATIONS

## Performance

<b>IEPE/Charge Selection</b>	Individual channel selection, two-way switch
<b>IEPE Channel Indicator</b>	LED Warning (Green: OK; Red: Short Circuit; Off: Open Circuit)
<b>Input Gain Options (per channel)</b>	x1, x10 and x100
<b>IEPE Supply</b>	+24V @ 2mA (Internal jumper selectable; 2mA, 3mA, 4mA, 8mA)
<b>No. of Channels</b>	9
<b>Output Dynamic Range</b>	±10V pk
<b>Frequency Response (±5%)</b>	10Hz to 20kHz (Charge & IEPE)
<b>Frequency Response (±10%)</b>	1Hz to 50kHz (Charge & IEPE)
<b>Bandwidth</b>	100kHz
<b>Phase Response (0° ±1%)</b>	10Hz to 10kHz (Internal jumper selectable for 180°)
<b>Phase Response (0° ±4%)</b>	0.5Hz to 20kHz (Internal jumper selectable for 180°)
<b>Linearity</b>	1%

## Connections

<b>Inputs</b>	9x BNC Jacks
<b>Outputs</b>	9x BNC Jacks

## Environmental

<b>Operating Temperature (Stated Performance Limits)</b>	20°C ±5°C (60°F ±9°F)
<b>Operating Temperature</b>	-20°C to +55°C (-4°F to +131°F)
<b>Storage Temperature</b>	-40°C to +85°C (-40°F to +185°F)

## Power

<b>Input Connector</b>	LEMO (Power supply cable included)
<b>Input Voltage Range</b>	24V DC
<b>Status</b>	LED Power Indication on Front Panel
<b>Maximum Power Rating</b>	20W
<b>Fuse Rating</b>	1A Slow Blow

## Physical

<b>Weight (CV9-CV-RM)</b>	2.5kg (5.5lbs)
<b>Weight (CV9-CV-BT)</b>	2.6kg (5.7lbs)
<b>Size (CV9-CV-RM)</b>	42.7 x 482.6 x 160.0 mm (1.68 x 19.0 x 6.30 in)
<b>Size (CV9-CV-BT)</b>	58.3 x 448.0 x 160.0 mm (2.30 x 17.64 x 6.30 in)

Electrical Performance - Broadband Electrical Noise			
	1 to 10kHz (Gain X1)	1 to 10kHz (Gain X10)	1 to 10kHz (Gain X100)
<b>RMS</b>	11.2µV	21.0µV	97µV
<b>Spectral Noise (1 Hz)</b>	1.34µV/√Hz	5.10µV/√Hz	25.00µV/√Hz
<b>Spectral Noise (10 Hz)</b>	0.20µV/√Hz	0.60µV/√Hz	3.42µV/√Hz
<b>Spectral Noise (100 Hz)</b>	0.12µV/√Hz	0.22µV/√Hz	1.70µV/√Hz
<b>Spectral Noise (1 kHz)</b>	0.12µV/√Hz	0.22µV/√Hz	1.80µV/√Hz
<b>Spectral Noise (10 kHz)</b>	0.10µV/√Hz	0.19µV/√Hz	1.40 µV/√Hz

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SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

ALL DEVICES CALIBRATED IN ACCORDANCE WITH BS ISO 16063-21:2003. ALL DEVICE CALIBRATIONS ARE UKAS TRACEABLE.