DJB Instruments
SENSING ENGINEERING INNOVATION

# CV9DC-V

## 9 Channel IEPE Signal Conditioner – DC Powered

The CV9DC-V is a DC powered 9 channel IEPE signal conditioner contained within a compact 1U high 19" rack mount unit, this can also be bench mounted using the rubber feet supplied.

Using front panel mounted BNC inputs and outputs it provides an easy set up solution, with individual gain selection via a three pole switch, which offers the user the option of x1, x10 or X100 gain individually selectable for each channel, making is extremely flexible when used with mixed accelerometer outputs.

With a low noise floor the CV9DC-V is a great all round low cost per channel solution, which can be used with any IEPE accelerometer or other IEPE transducer on the market. With wide frequency band capability it offers a versatile solution.

| Gain | x1 | x10 | x100 |
|---|---|---|---|
| Bandwidth | 500kHz | 500kHz | 100kHz |

**Front Connections**

**Rear Connections**

**Features**
- Short Circuit/open circuit warning Indicator.
- IEPE Constant Current Source, user selectable via internal jumpers.
- Switchable Gain of x1, x10, and x100 individual channel selectable.
- Front panel BNC input/output connectors.
- 19" Rack Mountable Enclosure

| Specification | Metric | Imperial |
|---|---|---|
| **Performance** | | |
| Indicators | Short Circuit/open circuit Warning LED | |
| Input Gain per channel | x1, x10 and x100. | |
| Channels | 9 | |
| Sensor Excitation Voltage | +24V DC | |
| IEPE Current | 2-14mA user selectable | |
| **Connections** | | |
| Inputs | 9 x BNC jacks | |
| Outputs | 9 x BNC jacks | |
| **Environmental** | | |
| Operating Temp. | 0 to +45°C | 32 to 113°F |
| **Power** | | |
| Input Connector | 3 Pole XLR Connector | |
| Input | 9 - 30 VDC | |
| Status | LED Power Indicator on Front Panel | |
| Max Power Rating | 5W | |
| Fuse rating | 1A slow blow | |
| **Physical** | | |
| Weight | 2.75kg | 6.06lbs |
| Size | H 44.5mm<br>W 482.6mm<br>D 348mm | H 1.75in<br>W 19in<br>D 13.7in |

| Electrical Performance | |
|---|---|
| **Broadband Electrical Noise (1 to 10,000Hz) (Gain x1)** | 11.2 µV rms |
| Spectral Noise (1 Hz) | 1.34 µV/√Hz |
| Spectral Noise (10 Hz) | 0.20 µV/√Hz |
| Spectral Noise (100 Hz) | 0.12 µV/√Hz |
| Spectral Noise (1 kHz) | 0.12 µV/√Hz |
| Spectral Noise (10 kHz) | 0.10 µV/√Hz |
| **Broadband Electrical Noise (1 to 10,000Hz) (Gain x10)** | 21 µV rms |
| Spectral Noise (1 Hz) | 5.10 µV/√Hz |
| Spectral Noise (10 Hz) | 0.60 µV/√Hz |
| Spectral Noise (100 Hz) | 0.22 µV/√Hz |
| Spectral Noise (1 kHz) | 0.22 µV/√Hz |
| Spectral Noise (10 kHz) | 0.19 µV/√Hz |
| **Broadband Electrical Noise (1 to 10,000Hz) (Gain x100)** | 165 µV rms |
| Spectral Noise (1 Hz) | 57 µV/√Hz |
| Spectral Noise (10 Hz) | 5.20 µV/√Hz |
| Spectral Noise (100 Hz) | 1.70 µV/√Hz |
| Spectral Noise (1 kHz) | 1.80 µV/√Hz |
| Spectral Noise (10 kHz) | 1.40 µV/√Hz |

**DJB Instruments (UK) Ltd**
Finchley Avenue,
Mildenhall, Suffolk IP28 7BG

Tel +44 (0)1638 712 288
Email sales@djbinstruments.com
Web www.djbinstruments.com

A UK company with UK-based manufacturing, assembly and calibration in-house.

DJB Iss.5.2020

ISO 9001 – 00025363