



New solutions to old problems.....

## C/A1 Charge Amplifiers



The C/A1 is a general purpose charge amplifier designed to be used with the wide range of piezo-electric accelerometers. Sensitivity calibration is by way of the 4 thumbwheel switches giving a wide range and ensuring accurate settings with even the lowest sensitivity accelerometers. The C/A1 has a wide frequency bandwidth, high accuracy, is versatile (through it's options) and low cost.

Input is by way of microdot connectors, located on the front panel and accept standard microdot low noise cable assemblies.

The output is industrial standard BNC socket normalised to 10mV/g or 100mV/g by the front panel switch.

The whole unit is housed in a tough ABS case, which is not only hard wearing but stylish as well. The unit can be free standing or form a bench top rack with other instruments in the range using the supplied module clips. The unit comes as standard with raised and tilt feet for maximum versatility.

The use of the latest components has made the unit extremely reliable and easy to service and re-calibrate. Throughout the design, only the closest tolerance components are used to ensure the highest possible accuracy.

Power requirements are a +/- 18Volt, 20mA stabilised supply, which is internally fitted in the master unit. Where units are cascaded, this is supplied by the master unit, via the 5-way triad connector on the rear panel.

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## **SPECIFICATION**

SENSITIVITY RANGE	00.01 to 99.99
FREQUENCY RESPONSE	5Hz - 100kHz $\pm$ 0.5dB 0.5Hz - 100kHz $\pm$ 1dB
LINEARITY	0.25%
ACCURACY	$\pm$ 1% Max typically 0.5%
NOISE	> 70dB down
MAX. O/P BEFORE CLIPPING	10 VOLTS r.m.s.
OUTPUTS	Switch-able o/p 10/100mV/g

## **CONNECTORS**

INPUT	MICRODOT SERIES
OUTPUT	BNC
POWER	FILTERED IEC MAINS SKT (MASTER UNITS ONLY)
AUX SOCKET	5 PIN TRIAD
EARTH STUD	M5 KNURLED CLAMP
POWER ON INDICATION	FRONT PANEL LED

## **POWER SUPPLY**

+18 VOLT	0.5A
-18 VOLT	0.5A
+24 VOLT	0.5A
+5 VOLT	0.5A

Slave units are supplied without power supply.

Each unit is provided with a "Power On" indicator which is supplied from the positive supply. When units are cascaded the LED alternates between + and - supplies to share loading and also to provide warning if either supply has failed.

## **DIMENSIONS C/A1 OVERALL**

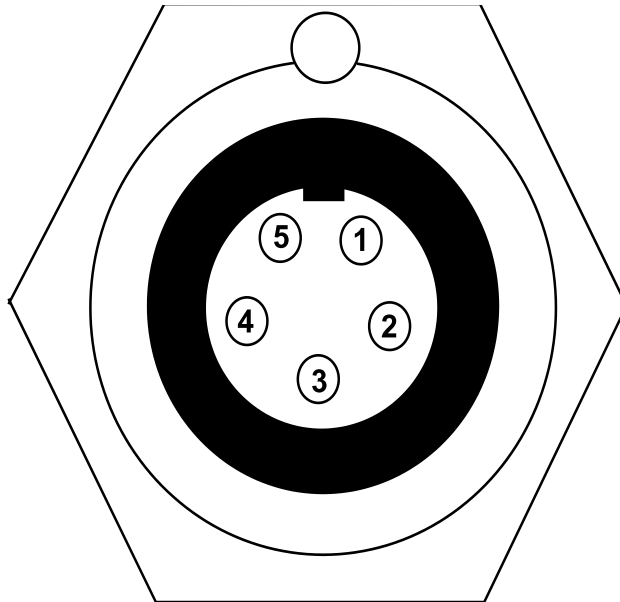
WIDTH	108mm
HEIGHT	170mm
DEPTH	212mm

## **OPTIONS**

Additional units, such as C/A2 to form 3 channel Triaxial system.  
Filters low or high pass, addition gains x10, x 2.5 etc, DC proportional to output module, Accelerometer protection unit (APU), Accelerometers and cables.

## FLEXIBILITY

The C/A1 range of charge amplifiers are fitted with an AUX socket to allow “daisy chaining” of other C/A2 and C/A1 units up to a maximum of 10 units (total 20 Channels) External function units can also be fitted allowing special gains and filtering to be added. This gives you the opportunity to “tailor” your signal conditioning to your exact requirements.



### KEY

1 = +15 Volts

2 = +24 Volts

3 = 0 Volts

4 = +5 Volts

5 = -15 Volts



Optional Gain Unit x2.5