

Main characteristics

- Eight-channels Front-end
- Internal built-in rechargeable battery
- Easily carried, allows measurements in both laboratory and field
- Overload indicator
- Easy configuration

The FC-822 is a low noise 8-channel power supply and conditioning amplifier (Front-End) for microphone preamplifiers and ICP® transducers (preamplifiers, accelerometers, etc.).

The FC-822 is indispensable for accurate multi-channel acoustic and vibration measurements in both laboratory and field.

It is equipped with eight independent input channels, each one with a 7-pin LEMO input for 200 V polarised microphones and a BNC input for ICP® transducers. Each channel is also equipped with a selectable gain from 0 to +40 dB in 10dB-steps, this helps to adapt the output to any measuring equipment or recorder (D.A.T). It is also possible to insert to each channel different high pass and low pass filters to condition the acquired signal. These are a 1 kHz Low Pass Filter and 3 Hz and 20 Hz High Pass Filters. The FC-822 has an excellent bandwidth that goes down to 0.3 Hz. In case an Overload occur, it has an independent overload indicator.

The output of each channel is available in a BNC connector in the side part of the FC-822.

The FC-822 can be powered by both mains supply or by its internal rechargeable battery, the FC-822 may function without being connected to the electricity supply for more than 6 hours. This makes the FC-822 ideal for measurements in the field or for the automotive industry.

The FC-822 it is compatible with other makes of preamplifiers and ICP® transducers.

The FC-822 is the perfect instrument to acquire, power and condition acoustic and vibration transducers in a both laboratory and field scenarios.



Microphone input “Micro”

Connector: 7 pin LEMO female
Voltage feed to the preamplifier: 28 V
Microphone polarisation Voltage: 200V

ICP® INPUT “ACCEL”

Connector: BNC female
Source Voltage : 28 V
Polarisation Current : 2 mA

General specifications

Input Impedance: $\geq 100 \text{ k}\Omega$
Maximum input voltage: $\pm 7 \text{ V}$
Gain selector: 0, 10, 20, 30, 40 dB
Overload detection: Instantaneous
Band width: 0.3 to 20,000 Hz
High-pass filter: Flat
(3dB cut-off frequency): 1 kHz (18 dB/oct)
Low-pass filter: Flat
(3dB cut-off frequency): 3 Hz (18 dB/oct)
20 Hz (18 dB/oct)

Channels signal output

Connector: BNC male
Output impedance: $\leq 60 \text{ dB}$
Output noise (HPF = flat, LPF = flat)
Gain = 0 dB \rightarrow Z-weighted (20 – 20KHz) : $\leq 8.5 \mu\text{V}$
A-weighted : $\leq 5.5 \mu\text{V}$
Gain = 10 dB \rightarrow Z-weighted (20 – 20KHz) : $\leq 3.1 \mu\text{V}$
A-weighted : $\leq 2.0 \mu\text{V}$
Gain = 20 dB \rightarrow Z-weighted (20 – 20KHz) : $\leq 1.3 \mu\text{V}$
A-weighted : $\leq 0.9 \mu\text{V}$
Gain = 30 dB \rightarrow Z-weighted (20 – 20KHz) : $\leq 0.8 \mu\text{V}$
A-weighted : $\leq 0.6 \mu\text{V}$
Gain = 40 dB \rightarrow Z-weighted (20 – 20KHz) : $\leq 0.6 \mu\text{V}$
A-weighted : $\leq 0.5 \mu\text{V}$

Dimensions and weight

297 x 82 x 222 mm
4.5 kg

Battery

Battery lifetime: ≥ 6 hours

External supply

Voltage input range: 12 V DC
Minimum supply current: 2.8 A
For DC supply use the **CESVA** A-800 model mains feeder : 100 – 240V ~ 50 – 60 Hz

SUPPLIED ACCESSORIES

Mains feeder (A-800)

OPTIONAL ACCESSORIES

Microphone LEMO extension cable 3 m (CN-003)
Microphone LEMO extension cable 10 m (CN-010)
Microphone LEMO extension cable 30 m (CN-030)
Outdoor kit (TK-1000)
Tripod (TR-40)
Tripod adaptor (TR-001)
CB-5 Acoustic Calibrator
PA-13 Preamplifier + C-130 microphone
PA-25 Preamplifier + C-250 microphone
PA-05 Preamplifier + P-05 microphone
BNC to BNC Cable
BNC to audio connector (Minijack, XLR or RCA)