

for piezoelectric accelerometers



The PCA 16 conditioning unit contains 16 identical measuring channels.

Every channel consists of a charge amplifier, followed by a remote-controlled gain differential output amplifier and a remote controlled low-pass filter.

The large charge amplifier setting range allows the use of most piezoelectric accelerometers.

The differential output is designed for connection to a data acquisition system by simple twisted pairs or flat cable up to a distance of approximately 30 meters.

CHARACTERISTICS (one channel)

Input impedance	> 1010 M Ohm
Input range (according to the selected sensitivity)	1 000 pC or 100 Pc
Sensitivity (gain x 1) (internal selection according to the used transducer)	20 mV/pC or 200 mV/pC
Sensitivity setting range	± 25 %
Remote-controlled gain (common to the 16 channels) (2 TTL bits)	x 1 x 2 x 5 x 10
Remote-controlled filter cut-out frequency (common to the 16 channels) (2 TTL bits)	Out 200 Hz 2 KHz
For other cut-out frequency values, please consult factory.	

Output voltage range	$\pm 10 \text{ Vp}$ (20 Vp-p)
Output impedance	150 Ohm
Phase response	From 2 Hz to 10 kHz : $\pm 1^\circ$ From 1 Hz to 20 kHz : $\pm 2^\circ$

GENERAL CHARACTERISTICS

Accelerometers connection	SUBCLIC plug
Acquisition system connection	SUB-D 25 pins plug
Connecting cable DB 25 / DB 25	25 metres (reference: PCA/PSYS)
Connecting cable DB 25 / 16 BNC	1,5 metres (reference: PCA/16BNC)
Power supply	AC single phase 220 Volts 200mA 50-60 Hz Consumption: 50 VA Power supply plug on the rear side.
<u>Environmental</u> <ul style="list-style-type: none"> • Operating temperature • Relative humidity 	From 0 to 50°C < 90 % without condensation
<u>Dimensions</u> : 1 U rack mounting	
<u>Mass</u> : 3.5 kg	