

CB200C1 - 1 CHARGE SENSITIVE PREAMPLIFIER

The preamplifier CB200C1 is low noise charge sensitive preamplifier. CB200C1 series has adjustable gain values. The preamplifier is optimized for high input capacitance (up to 1000pF). The module has bias input (up to 3KV) and protection circuit to avoid breakdown of the input of the preamplifier circuit. C200C1 module has only ±12 Volt power supply voltage.

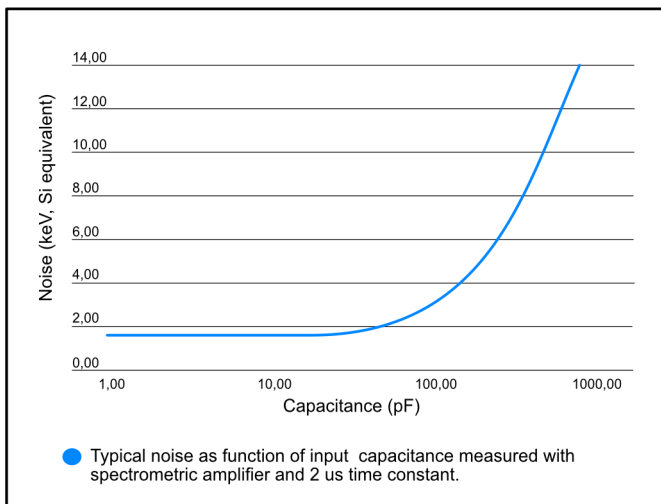
Model	Charge sensitivity (Si Equivalent)	Max. Noise (KeV/(Si)) (Cin=0pF)	Energy range
CB200C1	20-100 mV/MeV	< 1,5 KeV	0-200 MeV

PERFORMANCE

Decay time	100 μs
Dynamic input capacitance	Up to 1000 pF
Noise/Input capacitance ratio	9 e ⁻ /pF
Integral nonlinearity	0,03% (without termination)
Dynamic output range	± 7,5 V (without termination) ± 3 V (with 100 Ω termination)
Temperature stability	± 100 ppm/C
Rise time	< 20 ns
Open loop gain	30,000
HV Bias resistor	26 MegΩ
Output resistors	100 Ω
Test Capacitance	3 pF (±3%)

INPUT/OUTPUT

Input	Accepts positive or negative charge signal.
Bias	High voltage can be applied through SHV input connector. The serial resistance between input and bias connectors is 50 Meg Ω .
Test	Pulse input connector is LEMO type connector. Test capacitance is 3 pF.
Power	Input power through 3m screened cable from spectrometric amplifier or portable power supply.
Energy	LEMO type connector



POWER SUPPLY REQUIREMENTS

The best solution is alimentation from a NIM standard power supply or special low noise linear power supplies.

P. Voltage (V)	Current/ch (mA)
+12	24,0
-12	20,0

Power supply pin out:

Pin number	
4	+12 V
9	-12 V
1	Ground
2	Ground

BOX DIMENSIONS

box dimensions	111x80x40 mm
weight	0,5 kg
cable length	3 m

