CB202A Charge sensitive preamplifier.

The preamplifier **CB202A** is fast charge sensitive preamplifier specially studied from Gas based detectors. The rise time is less 7 ns with 50 ohm termination. The module has bias input SHV connector (up to 3 KV) and protection circuit to avoid breakdown of the input of the preamplifier circuit. The module has only +/- 12 volt alimentation.

PERFORMANCE

Charge sensitivity	150 mV/pC
Decay time	50 us
Max. Noise*	200 e-
Noise/Input capacitance ratio:	<4 e-/pF
Integral nonlinearity:	0,1 % (without termination)
Output signal Rise Time	less then 7 ns.
Dynamic output range	+/- 6 V (without termination). +/-3V (with 50 Ohms termination).
Output offset	less then +/-3 mV
Output resistors:	50 Ohm
Test Capacitance:	3,3 pF (+/-3%).
Temperature stability:	+/- 100 ppm/C.

Note *: equivalent noise with 1us time constant integration is measured.

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INPUT accepts positive or negative charge signal. BNC pin connector or SHV connector. (Specified in order)

BIAS voltage can be applied through SHV input connector. The serial resistance between input and bias connectors is 56 MegOhm.

TEST pulse input connector is BNC type connector. Test capacitance is 3,3 pF.

POWER input power through 3 meter screened cable.

ENERGY output negative or positive linear pulse. BNC connector.

POWER SUPPLY REQUIREMENTS:

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

Power supply pin out:

P. Voltage (V)	Current (mA)
+12	30,0
-12	24,6

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

Box dimensions: 111x80x40 mm

Cable length 3 m.

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