

CB234 preamplifier/discriminator.

The CB234 is a preamplifier/discriminator module. It specially has been designed for processing fast high count rate output pulses from electron multipliers. The dead time is selectable in six steps to allow for a precise dead time correction. The threshold can be set from 3 up 255 counts. The module is housed in small RF-shielded case. Optional version with +/- 12 Volt alimentation increase input signal protection range.

Performance:

Working input range	- 3 to - 250 mV
Safe operating without damage	+/- 5 Volt (optional version +12/-12 Volt)
Threshold, adjustable in 256 counts	- 3 to - 250 mV
Pulse width (FWHM)	5 to 30 ns (About 0,5xdead time)
Count rate	up to 2 x 10e6
Accuracy	5%
Dead time switch selectable	10-20-30-40-50-60 ns
Output NIM standard (optional version)	-0,7 V
Output amplitude (open circuit)	4 Volt
Output amplitude (50 Ohm termination)	1,5 Volt
Temperature stability (full range)	1%
Temperature range	0-50C

INPUTS:

LEMO style connector (optional version BNC style).
Input impedance DC coupled 50 Ohm.

OUTPUTS:

LEMO style connector (optional version BNC style).

POWER SUPPLY REQUIREMENTS:

The best solution is alimentation from a NIM standard power supply or special low noise linear power supplies like DCB101.

P. Voltage (V)	Current (mA)
+6	38.5 (26 mA for optional version)
-6	38,5 (26 mA for optional version)
+12	12,5 (optional version)
-12	12,5 (optional version)

SubD9 male connector

Pin number	
7	NC
6	NC
4	+12 Volt
9	-12 Volt
1	Ground
2	Ground
3	+6 Volt
5	-6 Volt
8	NC

DIMENSIONS:



Standard Aluminum module 111x80x40

mm.

Test signal of input preamplifier CB234 before discriminator 12 mV input signal.

