

NCB222 - SINGLE CHANNEL ANALYZER

The logic output NCB222 is provided TTL and NIM-level output pulses like response for input analog pulses whose peak amplitude is between the levels determined by the lower level discrimination and timing window (full scale

range of the WINDOW (ΔE) control as +1,0 Volt DC or +10,0 Volt dc). Full range of delay can be selected by switch as 2 μ s or 10 μ s added. All this parameters are adjustable by controls resistance on the front panel of the module.

PERFORMANCE

Discriminator nonlinearity	< $\pm 3\%$ of full scale
Discriminator stability	$\geq 0,01\%/C$ (± 100 ppm/ $^{\circ}C$) of full scale
Discriminator range	100:1
Delay nonlinearity	< $\pm 1\%$ of full scale
Delay stability	$\leq 0,01\%/C$ (± 100 ppm/ $^{\circ}C$) of delay range
Pulse pair resolution	Output pulse width (positive) plus the DELAY selected plus 200ns cycle time. Minimum resolving time 800ns.
Signal input	From 0 to +10,0 V DC, Input resistance is 1 k Ω

FRONT PANEL CONTROLS

Lower level (E)	Front panel ten-turn locking dial potentiometer to set lower discriminator threshold level.
Window (ΔE)	Front panel ten-turn locking potentiometer to set window width (upper discriminator threshold level above lower level).
Delay	Front panel ten-turn locking potentiometer to set delay of outputs.
ΔE range	Front panel toggle switch to set full scale range of the WINDOW (ΔE) control as +1,0 V DC or +10,0 V DC.
Delay range	Front panel toggle switch to set full scale range of the DELAY control as 2 μ s or 10 μ s added delay.

INPUT/OUTPUT

Input	Front-panel BNC connector accepts positive or negative pulses SIGNAL INPUT range – from 0 to +10,0 V DC, Input resistance is 1 k Ω
Outputs	<p>TTL OUTPUT: Positive logic +5 V nominal pulse amplitude; Pulse width is 0,5 μs, nominal; rise time and fall time <25 ns; BNC connector.</p> <p>NIM OUTPUT: NIM logic 16 mA current pulse; pulse width 40 ns, nominal; rise time <5 ns; BNC connector.</p>
Preamp power	Rear-panel standard D9 power connector.

POWER SUPPLY REQUIREMENTS

The module has NIM standard power supply.

P. Voltage (V)	Current/ch (mA)
+24	100
-24	50
+12	150
-12	120

DIMENSIONS

dimensions	3,43x22,13 cm per DOE/ER-0457T
weight	1,5 kg