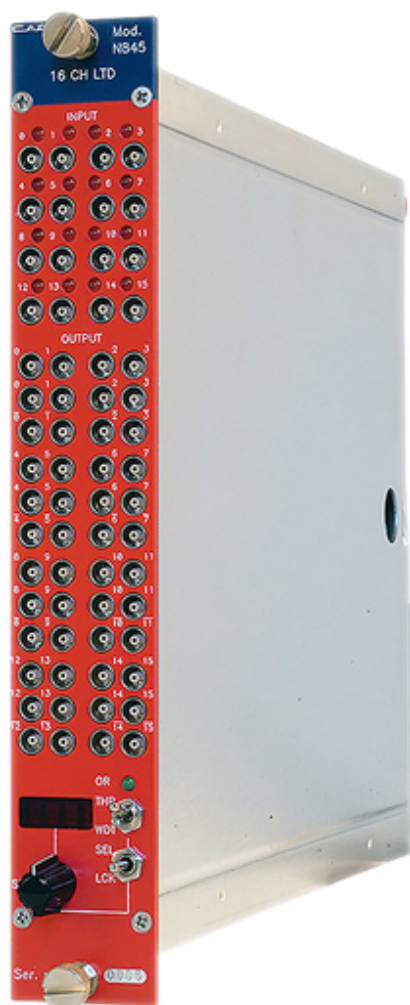
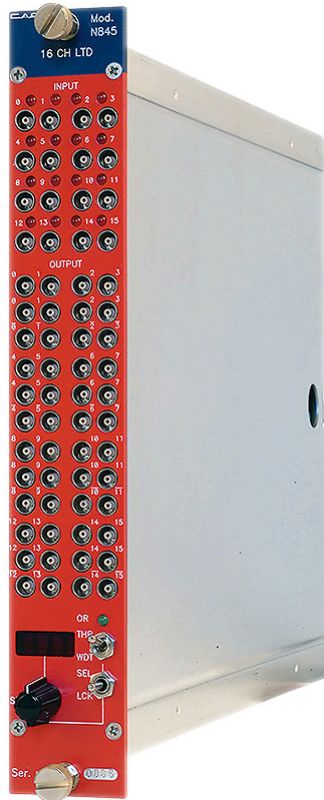


# N845

## 16 Channel Low Threshold Discriminator



## Features



- Individually programmable thresholds
- Programmable output width
- TEST and VETO inputs
- OR and Current Sum outputs
- High sensitivity on small signals
- 4-digit Led display

## Description

The CAEN **Mod. N845** is an 16 **Channel Low Threshold** (leading edge type) **Discriminator** housed in a one unit wide NIM module. The module accepts 8 negative inputs and produces 2x16 NIM outputs (NIM outputs are provided with a fan-out of two)+ 16 /NIM outputs (negated) on front panel LEMO 00 connectors. The pulse forming stage of the discriminator produces an output pulse whose width is adjustable in a range from 6 to 95 ns. The discriminator thresholds are individually settable in a range from -1 mV to -255 mV (1 mV step), via an 8-bit DAC. The minimum detectable signal is -3 mV. The back panel houses VETO and TEST inputs, the logical OR output (the relevant OR LED lights up if at least one channel is over threshold) and the Current Sum output, which generates a current proportional to the input multiplicity, i. e. to the number of channels over threshold, at a rate of -1.0 mA per hit (-50 mV per hit into a 50 Ohm load)  $\pm 20\%$ .

## Technical Specifications

### Packaging

1U-wide NIM unit

### Inputs

16 inputs (negative polarity, 50 Ohm impedance, DC coupling)

### Max input voltage

-400 mV

### Min. detectable signal

-3 mV

### Max input frequency

60 MHz (8 ns output pulse width)

### Double pulse resolution

16 ns (8 ns output pulse width)

### Threshold range

-1 mV to -255 mV (-1 mV step)

### Outputs channels

32 NIM (bridged) + 16 /NIM (single) (50 Ohm)

### Input/output delay

$10.5 \pm 1.5$  ns

### Output width

Programmable from 6 ns to 106 ns

### Output rise/fall time

OUT: 1.2 ns; /OUT: 2.5 ns

### Interchannel insulation

45 dB for 2.5 ns rise time input signals

### Control inputs

NIM logic signals, high impedance:

- VETO: allows vetoing of all channels simultaneously
- TEST: triggers all the enabled channels at once

### Control outputs

OR: standard NIM signal; Current Sum: current proportional to input multiplicity ( $-1 \text{ mA} \pm 20\%$  per hit)

## Display

INPUTS: 16 [8] red LEDs; they light up when the channel is being programmed or when it is inhibited

4-DIGIT DISPLAY: it indicates the channels' status and programmed parameters' values

OR: green LED; it lights up if at least one output signal is present

## Ordering Options

Code	Description
WN845XAAAAAA	N845 - 16 Channel Low Threshold Discriminator 50 Ohm Negative Inputs <span data-bbox="1374 248 1458 300">RoHS</span>

## Accessories

### A385



Adapter 2.54mm 34-pin female to 16x LEMO 00 female (or MCX male) - 50 cm / 1 m

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## Related Products

### NIM8305



2 Slot Switching 450 W Mini Crate

### NIM8304



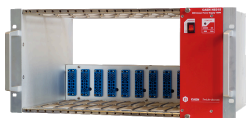
7U 12 slot smart fan unit Switching 2000 W Crate

### NV8020A



7U CRATE VME/NIM 8 slot VME64 365W, 5 slot NIM 150W

### NIM8302



5U 10 slot 150 W Compact Crate

### NIM8302P



5U 5 slot 150 W Portable Crate

## NIM8306



2 Slot Switching 750 W Mini Crate

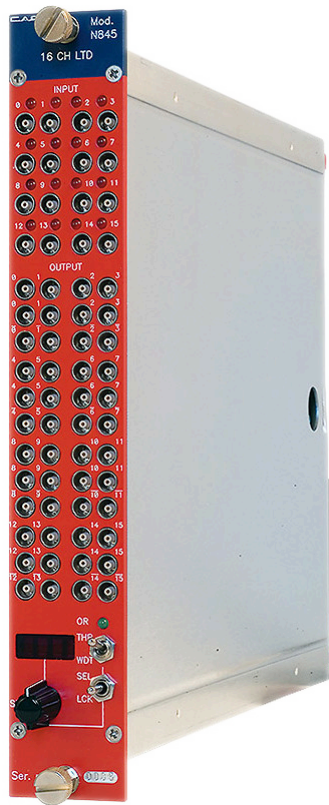
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## NIM8303



5U 12 slot 300/600 W Crate

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