Universal coincidence

Model **NCB213.**

WARRANTY

NAICAM S.R.L. warrants this product to be free from defects in material and workmanship for a period of 1 year from date of shipment from headquarter in Italy.

NAICAM SRL warrants the following items for one year from the date of shipment: probes, cables, and documentation of specified equipment.

During the warranty period, we will, at our option, either repair or replace any product that proves to be defective.

To exercise this warranty, write or call your local NAICAM SRL representative, or contact NAICAM SRL headquarters in Italy. You will be given prompt assistance and return instructions. Send the product, transportation prepaid, to the indicated service facility. Repairs will be made and the product returned, transportation prepaid. Repaired or replaced products are warranted for the balance of the original warranty period.

LIMITATION OF WARRANTY

This warranty does not apply to defects resulting from product modification without NAICAM SRL express written consent, or misuse of any product or part.

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NAICAM srl, NOR ANY OF ITS EMPLOYEES SHALL BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF ITS INSTRUMENTS AND SOFTWARE EVEN IF NAICAM SRL, HAS BEEN ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES. SUCH EXCLUDED DAM- AGES SHALL INCLUDE, BUT ARE NOT LIMITED TO: COSTS OF REMOVAL AND INSTALLATION, LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR DAMAGE TO PROPERTY.


NAICAM
NCB213
Resolving time
COINCIDENCE
1
2
3
4
5
OFF
ANTI
A
COINC.
OFF
ANTI
B
COINC.
OFF
ANTI
C
COINC.
OFF
ANTI
D
COINC.
OFF
ANTI
E
NEG.
POS.
OUTPUT
UNIVERSAL COINCIDENCE
+12
-12
+6
-6

1. GENERAL DESCRIPTION.

1.1 DESCRIPTION.

The module NCB213 is a universal coincidence unit with 5 inputs. Each input is accepted through a front-panel connector. Input accepts an input signal and regenerates an internal signal that will be used for coincidence comparisons. The Input signal width is adjustable for a resolving time of 100 ns to 2 μs from a front-panel. The function of each input is selectable and can be used for coincidence or anticoincidence. These permits compose different combinations of input signal relations.

1.2 PERFORMANCE.

The module has 5 BNC inputs (A, B, C, D, E) and 2 outputs (POS, NEG). Each input accepts NIM or TTL inputs. Type of inputs can be choosing by inputs jumpers. TTL input signal should be more +2 Volt. NIM input terminated to 50 Ohms. Output signals (POS. and NEG.) are complementary positive and negative 5 volts amplitude signals.

Input resolving time for input A from 100 ns to 2 μs; controlled by a front-panel, 20-turn, screwdriver adjustable potentiometer; inputs B, C, D, and E controlled by input pulse width. On the front panel five 3-position toggle switches select Coincidence, Anticoincidence, or Off (disabled). The level of coincidence can be selected by 5 position switches.

Coincidence of the signal function determined by number of inputs and a coincidence requirement (majority logic). Maximum trigger level is 5.

Temperature instability Input change in resolving time, τ = ±0.1%/°C.

Operating temperature are 0 to 50°C.

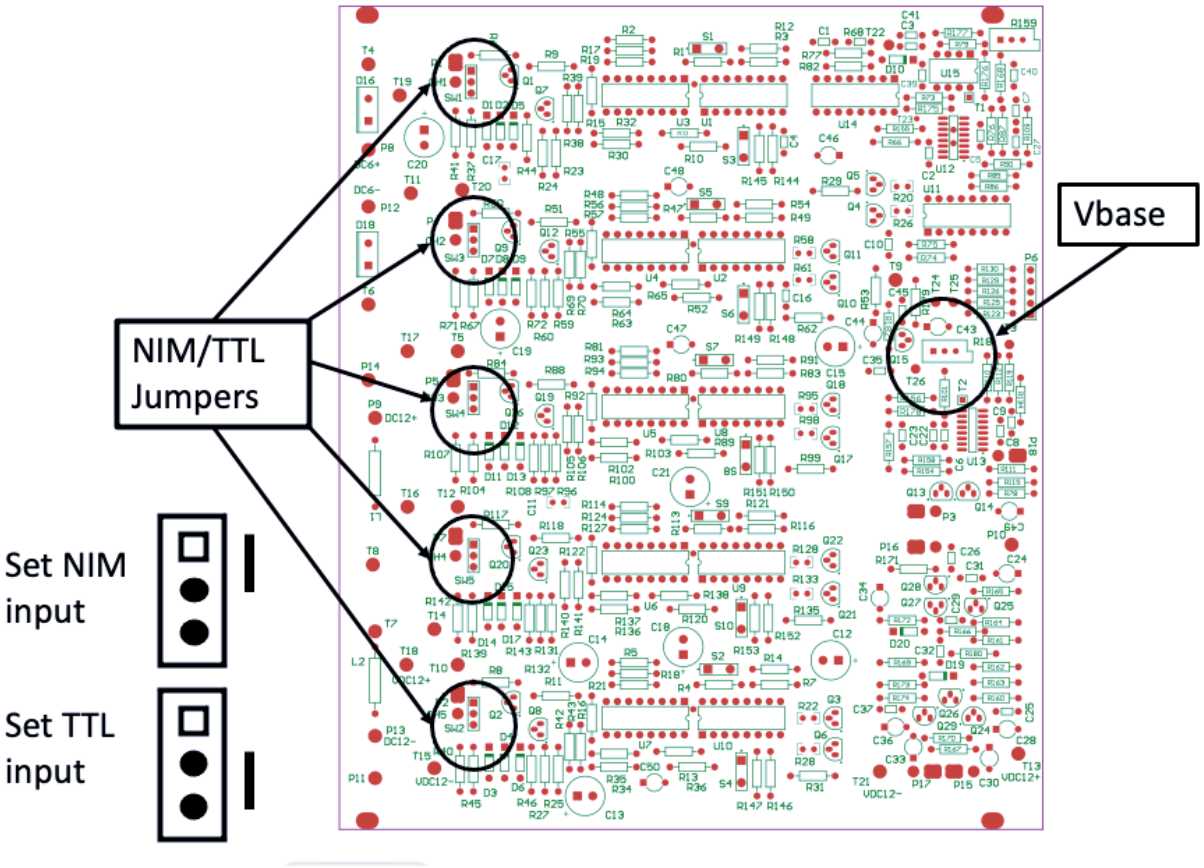
2. TECHNICAL SPECIFICATIONS.

2.1 INPUT/OUTPUT CONNECTIONS AND SIGNAL CHARACTERISTIC

INPUT A RESOLVING TIME	controlled by a front-panel, 20-turn, screwdriver adjustable potentiometer.
INPUT CONTROLS	Five 3-position toggle switches select Coincidence, Anticoincidence, or Off (disabled).
TTL INPUT POLARITY	+2 V, 30 V maximum.
TTL INPUT IMPEDANCE	>1.5 k **Ω**, dc-coupled.
NIM INPUT	14 mA for 50 Ohm.
INPUT PULSE WIDTH	50 ns to dc.
INPUT CONNECTORS BNC	on front panel
POS. OUTPUT AMPLITUDE	+5 V.
NEG. OUTPUT AMPLITUDE	-5V.
MINIMUM OUTPUT PULSE WIDTH	500 ns.
OUTPUT CONNECTORS	BNC.
OUTPUT IMPEDANCE	<8 **Ω**, dc-coupled.

2.2 INTERNAL HARDWARE SETTINGS

Inside of module there is only one internal set trimmer V base level. This trimmer set base voltage in fabric 2,5 Volt on resistor R181. On the picture below shown position of input jumpers. Each jumper corresponds from top to 5 channels A, B, C, D, E. Set NIM or TTL inputs can be choose by mini jumpers.



2.3 POWER REQUIREMENTS

The module has NIM standard power supply.

P. Voltage (V)	Current (mA)
+24	120
-24	110
+12	60
-12	30

2.4 DIMENSION AND WEIGHT

DIMENSIONS NIM-standard single-width
module 3.43 X 22.13 cm per DOE/ER-0457T.

WEIGHT
Net 1 kg.

For More information on NAICAM products and applications contact your local NAICAM representative:

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