

## NCT100 Standalone Counting Solutions

### PRODUCT DESCRIPTION

The Nortech NCT100 four-channel counting module can be used as a standalone unit providing up to 4 individual counters. One or more Variable Message Signs can be associated with each of the counters to provide information of space availability to staff and visitors. Up to two alarm outputs can be associated with each counter to indicate that the count has reached a predetermined value. The outputs can be used to operate Space/Full signs, traffic lights or other external indicators as necessary.

The Nortech numeric signs provide a 100mm high, 4-digit display of the count value or 'FULL' when the count value is less than one. These signs are driven over an RS485 bus from the NCT100 and can carry up to four independent count values to addressable displays connected to the bus.

Alternatively, the relay output from the NCT100 can be used to control Nortech's SPACE/FULL signs.



### FEATURES

- ◆ Provides up to 4 individual counters for recording the number vehicles or personnel entering or leaving a controlled area
- ◆ Each counter can count record values between -32500 and +32500
- ◆ Both increment and decrement inputs (up to 4 of each, depending upon configuration)
- ◆ Each counter can be individually configured to count up or down
- ◆ Alarm and Pre-alarm outputs when counts reach preset thresholds
- ◆ Drives up to four individual Variable Message Sign count values
- ◆ Can be programmed directly using a full numeric keypad and 2-line x 16-character LCD
- ◆ Each counter can be reset to a pre-determined value via a general reset input

### SPECIFICATIONS

#### NCT100

##### Electrical

Supply Voltage:	12 - 24V DC
Current Requirement:	100 mA quiescent, up to 230mA while all alarms are active

##### Physical

Display:	2 lines x 16 character LCD
Keypad:	12 button membrane
Dimensions (mm):	190 x 130 x 43 (H x W x D)
Cable Termination:	Plug-in screw terminal blocks

##### Environmental

Operating Temperature:	0°C to 40°C
Storage Temperature:	-20°C to 70°C
Relative Humidity:	95% non-condensing

##### Capacity

Counting capacity:	4 counters, each counting up to 32500
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##### Inputs

Increment/decrement:	4 counter increment and 4 counter decrement inputs (clean contact pulse)
Master count reset:	Single input to set all counters to their reset value (clean contact pulse)

##### Outputs

Alarm outputs:	2 independent voltage free changeover relays (2A, 30V DC) plus 2 open collector outputs
Pre-alarm outputs:	4 open collector outputs.
Variable Message Signs:	RS485 communications port supporting 4 node addresses (4 individual count values)

#### Message Signs

##### Electrical

Supply Voltage:	9 to 24V DC
Current Requirement:	250mA @ 12 volts

##### Physical

Display:	4 or 5 character display (choice of yellow or red)
Viewing angle:	20° each side of centre
Housing:	Black powder coated Zintec
Dimensions (mm):	380 x 205 x 120 (W x H x D)
Display adjustments:	4 brightness levels selectable via NCT100 module

Mounting:	Options for mounting directly on a flat surface or by using brackets (included) to enable tilt and pan adjustment for pole mounting (3" diameter).
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Cable Termination:	Plug-in screw terminal blocks
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##### Operation (Numeric Display)

Display:	-999 to 9999 or 'FULL' and 1 to 9999
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##### Input

Count Bus:	RS485 bus from an NCT100 counter module. Displayed count value is controlled by node setting DIP switches.
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##### Operation (OPEN/FULL Display)

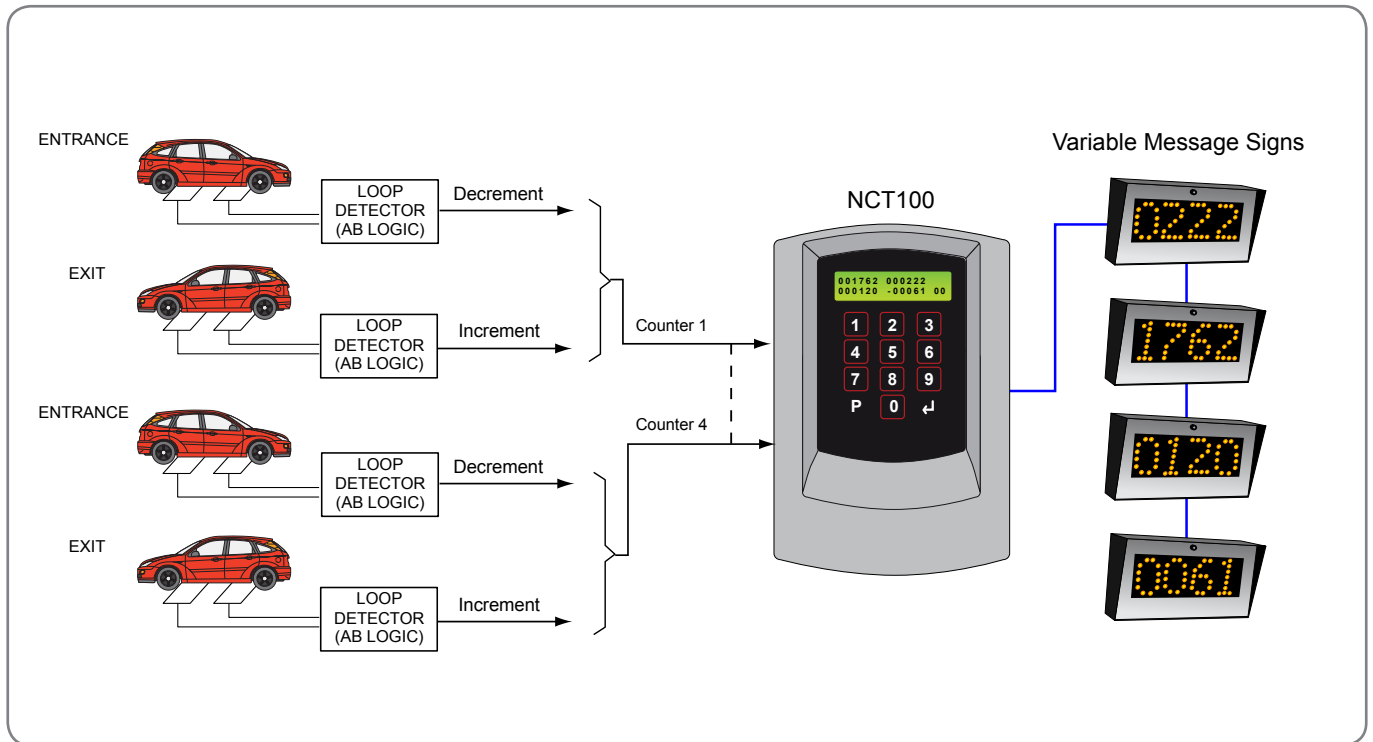
Display:	'SPACE' (count >0) or 'FULL'
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##### Input

Display control:	Ground activated input.
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## Example Parking Application



## Ordering Information

**NCT100** 4-channel stand-alone counting system with VMS control bus and alarm outputs.

**VMS-001-R** LED sign with 10cm high characters capable of displaying 4-character numeric value or 'FULL' when count = 0 or below. Controlled by NCT200 via RS485 bus. All red LED's.

**VMS-001-Y** LED sign with 10cm high characters capable of displaying 4-character numeric value or 'FULL' when count = 0 or below. Controlled by NCT200 via RS485 bus. All yellow LED's.

**VMS-005-R** LED sign with 10cm high characters capable of displaying 'SPACE' or 'FULL' under relay/switch control. All red LED's

**VMS-005-Y** LED sign with 10cm high characters capable of displaying 'SPACE' or 'FULL' under relay/switch control. All yellow LED's