Capacity Counter

Model - CT100 Series

The CT100 is a capacity counter with 4 X Up Count inputs and 4 X Down Count inputs. The counter has been designed to count the vehicles in a parking facility.

The counter is initially preset to the number of empty parking bays. As the vehicles enter the facility the counter counts down showing the number of available bays. When there is no more space the output relay is energised. This relay can be used to switch on a full sign to indicate that the facility has no more space.

The counter incorporates battery backed memory and will maintain its count value during a power fail condition. The maximum count value is 9999.

Applications

Typical applications include counting of car park bays.

Features

Separate Count Inputs. By having separate inputs for the up and down counts, the logic ensures that simultaneous input changes will not be lost which ensures that an accurate count value is maintained.

Battery Backed Counter. The built in batteries ensure that the count value will be maintained even if the power is removed for extended periods.

Push Button Operation. The push buttons on the front panel allow for easy configuration of the unit.
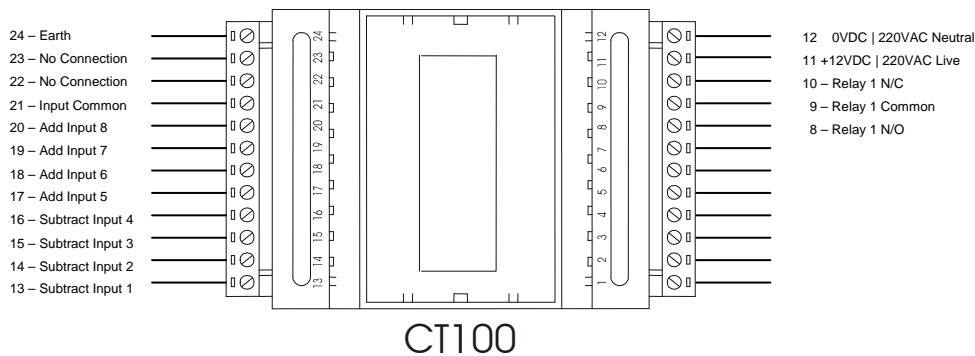
Indicators

Count Display. This 4 digit seven segment display is used to shown the count value and is also used for setting up the maximum count.

Technical Specifications

Power supply	**CT100** 200 - 260VAC 50Hz 1.5VA
	CT101 100 - 120VAC 60Hz 1.5VA
	CT102 12VDC
Count Inputs	These inputs may be activated by a potential free relay contact or open collector NPN transistor output. These inputs are isolated from the logic.
Input Protection	Optical Isolation (AC Versions Only).
Input Filter	Approximately 100ms.
Output Relay	Change over contact 5A/220VAC
Display	4 Digit, 7 Segment LED display
Memory	Battery Backed Memory (10 years data retention).
Connector	2 X 12 Way Removable Connectors with screw terminals
Dimensions	106mm (HIGH) X 70mm (WIDE) X 59.5mm (DEEP)
Operating Temperature	-20°C to +60°C
Storage Temperature	-20°C to +65°C

Wiring Diagram


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24 – Earth                          12   0VDC | 220VAC Neutral
23 – No Connection                  11 +12VDC | 220VAC Live
22 – No Connection                  10 – Relay 1 N/C
21 – Input Common                    9 – Relay 1 Common
20 – Add Input 8                     8 – Relay 1 N/O
19 – Add Input 7
18 – Add Input 6
17 – Add Input 5
16 – Subtract Input 4
15 – Subtract Input 3
14 – Subtract Input 2
13 – Subtract Input 1
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CT100

1. If loop detectors are being used to generate the vehicle counting pulses then these must be wired to the counter inputs. The Subtract inputs are wired to the detectors which are monitoring the vehicles entering the parking facility, and the Add inputs are wired to the detectors monitoring the vehicles leaving the facility.
2. The Full/Space sign is connected to the relay output. If the sign uses a high current it may be necessary to add a high power external relay.
3. Connect the power to the Live/Neutral terminals.

Configuring the CT100

The push buttons on the front of the CT100 are used to configure the counter and to switch between auto and manual modes.

MODE BUTTON: Each time the mode button is pressed the mode will change (AUTO-FULL-SPACE).

AUTO Mode: The counter will count the vehicles and operate the relay if there are no more spaces. A negative value indicates an excess number of vehicles in the facility.

FULL Mode: The counter will display FULL and the relay will be permanently on.

SPACE Mode: The counter will display SPACE and the relay will be permanently off.

EDIT BUTTON: When the EDIT button is held in, the counter will enter edit mode. The first value displayed is the actual count value which corresponds to the actual number of free spaces at this point in time. (Not the total number of parking spaces).

To change the actual count value perform the following steps:

1. Use the MODE button to increment the digit to edit the value.
2. Use the EDIT button to move to the next digit.

After the last digit has been edited, push the EDIT button again and a new value will be displayed. This is the total number of parking spaces.

To change the total number of parking spaces, perform the following steps:

1. Use the MODE button to increment the digit to edit the value.
2. Use the EDIT button to move to the next digit.

After the last digit has been edited, push the EDIT button again and this will exit the EDIT mode. The counter will now be in AUTO mode and the actual number of free spaces will be displayed.

EDIT + MODE BUTTON: When the EDIT and MODE buttons are pressed together at the same time, the actual count value will be reset to the saved maximum value.

Contact Details

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