INTRODUCTION

NC400-6 is an advanced 6-digit counter that also performs batch and totalizer counting operations. It has two outputs with independent and configurable presets that can be triggered based on counting, batch or totalization values. Its 2 outputs allow for an independent timed triggering.

The counting inputs can be configured to connect dry-contact, voltage pulse, NPN or PNP sensors. Sensors may be powered by an internal power supply.

Counting mode can be configured as progressive, regressive, quadrature, sum or subtraction. Several reset modes - automatic or manual - can be configured. Manual reset can be generated by a digital input or key from the front panel.

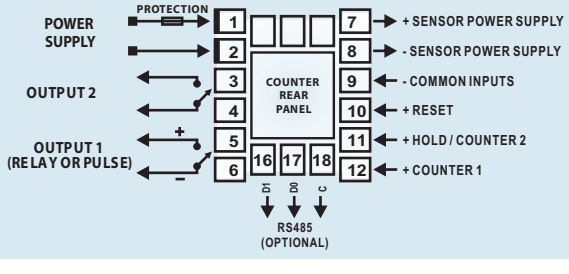
FEATURES

- **Counter**: Single or double input, enabling progressive counting, regressive counting, progressive/regressive with external signal control, quadrature, sum/sum, sum/subtraction and subtraction/subtraction. Configurable scaling factor and decimal point position
- **Batch counter**: Counts the number of times that the counting input Preset 2 was reached
- **Totalizer**: Counts the total of pulses in the counting input or the number of times that the batcher preset was reached
- **Presets (Set Points)**: 2 presets for the counter, 1 for the batch counter and 1 for the totalizer
- **Output 1**: Relay output or voltage pulse associated to the counter preset 1. Timed triggering: usually configurable as open or closed
- **Output 2**: Configurable relay output to trigger the counter preset 2, batch preset or totalizer preset. Timed triggering: usually configurable as open or closed
- **Reset**: Manual through digital input or front keys. Multiple programmable automatic reset modes
- **Hold**: Through digital input or front keys. The hold digital input will not be available if 2 counting inputs are in use
- **Input types**: Voltage pulse, dry contact, NPN sensor or PNP sensor
- **Sensor power supply**: 12 V power supply for proximity sensors
- **Programmable front key**: Can be configured to interrupt counting (hold), reset counters or reset outputs
- **Hold countings**: Replaceable internal battery for counters maintenance in case of a failure of main power supply
- RS-485 digital communication, MODBUS RTU protocol, 9.600 baud rate
- Easy-to-use menu
- Password protected parameters configuration
- Indelible 8-digit serial number that can be accessed from the display
- Silicone keyboard
- Not necessary to dismount cables to access the circuit
- Weatherproof front panel (IP65)
- **Typical applications**:
  - Packing, cutting, welding and pressing machines control
  - Length measuring and cutting, with parts count and production wrap-up

SPECIFICATIONS

- 6-digit red display 12 mm-high
- Counting inputs, hold and reset:
  - Low level: < 2 Vdc
  - High level: > 3 Vdc
  - Input impedance: 4700 Ohms
  - Maximum input voltage: ± 30 Vdc
  - Dry-contact input polarization: 5V / 4700 Ohms
- Max. counting frequency: 20 kHz, 4 kHz or 55 Hz, depending on the counting mode selected
- Scaling factor: Configurable from 0,00001 to 9,99999
- Relay outputs: SPST 1.5 A @ 240 Vac
- Pulse output: 5 Vdc. Output impedance 100 Ohms
- Outputs triggering timing: 0,01 to 9999,99 s
- Supply output: 12 V dc/50 mA
- Power supply: 100 to 240 Vac/dc ± 10%, 50/60 Hz; optional 24 Vdc/ac
- Consumption: 9 VA max
- Battery: Lithium CR2032. 4-year autonomy
- Operating environment: 5 to 50 °C, 30 to 80% RH
- Dimensions: 48 x 48 x 110 mm. Panel cutout: 45.5 x 45.5 mm
- Front panel: Polycarbonate UL94 V-2, IP65
- Case: ABS+PC UL94 V-0, IP20
- Weight: 130 g (basic), 150 g with 2 alarm relays
- Rated CE and UL

ELECTRICAL CONNECTIONS



HOW TO SPECIFY

Model	Description	Opcional 1 (Communication)	Opcional 2 (Power supply)
NC400-6-RR	Model with 2 relay outputs.	- 485	- 24 V
NC400-6-RP	Model with 1 pulse output and 1 relay output.		

Example 1: NC400-6-RR: Model with two relay outputs and 100 to 240 Vac/dc power supply
Example 2: NC400-6-RR-24V: Model with two relay outputs and 24 Vac/dc power supply
Example 3: NC400-6 -RP-485: Model with one pulse output, one relay output, 100 to 240 Vac/dc power supply and RS-485 communication.