Crouzet

COUNT/RATE

CP7-92 SERIES

UP/DOWN COUNTER, BATCH COUNTER CHRONOMETER AND RATE CONTROLLER

- **Backlit Green LCD or Red Illuminated Display**
- **Displays Actual and Preset Count**
- **72 x 72mm Housing**

The CP7-92 Series is a programmable dual preset up/down counter, batch counter, chronometer and rate controller with relay outputs. The CP7-92 is 72 x 72mm DIN-sized and offers the choice of a large green backlit LCD display or a large red illuminated display. The CP7-92 display shows both actual and preset values. Both count and preset values are saved in EEPROM memory. The unit provides a built-in sensor power supply of 12 VDC, 100 mA and will accept contact or solid state inputs. Front panel reset can be enabled or disabled. The front panel is rated NEMA 12.

SPECIFICATIONS:

Input Power . . . . . 80 to 260 VAC
20 to 55 VAC
10 to 30 VDC
Sensor Supply 12VDC 100mA
Display . . . . . 6 digit, Green backlit LCD
6 digit, Red Illuminated
-99,999 to +999,999
Display digit height . . . . . 10mm - actual
6mm preset
Count Inputs . . . . . 2 Inputs, IN1, IN2
Contact Closure, DC Voltage, Solid State:
NPN and PNP
Low Level: 0 to 1 VDC
High Level: 4 to 30 VDC
Impedance: 10KΩ
Low Speed: 30 Hz Max.
High Speed: 5 kHz
Input Modes . . . . . Up IN1 - Count input
DN IN1 - Count input
IND IN1 - one direction
IN2 - opposite direction
DIR IN1 - Count input
IN2 - Change in direction input
CUMUL IN1 - Input
IN2 - Same direction input
Phase; Quadrature Up/Down Mode
Phase x 2
Phase x 4
Reset Input . . . . . Dry contact, DC voltage, Solid State: NPN/PNP front panel
Scale factor . . . . . Programmable from 0.0001 to 99.9999
Output . . . . . 2 x 2 Amp SPDT Relay
(2 Amps resistive @ 250 VAC)
2 x 100 mA 40 VDC NPN transistor
Output Modes . . . . . Repeat or single cycle
Maintained or pulsed output (.9 to 9.9 s)
Connections . . . . . Screw terminals: 2 x 1.5mm²
Front Panel Rating . . . . . NEMA 12, IP54
Operating temperature . . . . . 0°F to 131°F, (0 to 55°C)
Storage temperature . . . . . -13°F to 158°F, (-25°C to 70°C)
Weight . . . . . 10.2 oz. (290g)

ORDERING INFORMATION:

Part Number	Input Voltage	Display
87619228	80 to 260VAC	Backlit, Green
87619224	20 to 55VAC	Backlit, Green
87619222	10 to 30VDC	Backlit, Green
87619328	80 to 260VAC	Red Illuminated
87619324	20 to 55VAC	Red Illuminated
87619322	10 to 30VDC	Red Illuminated

CONFORMITY:

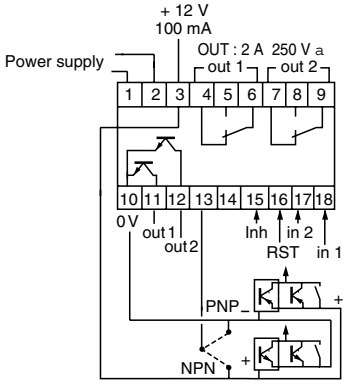
Immunity to interference and noise (EMC)

IEC 1000.4.2	Level 3
IEC 1000.4.3 Radiated disturbance	Level 3
IEC 1000.4.4 Fast transient	Level 3
IEC 255.4	Level 3

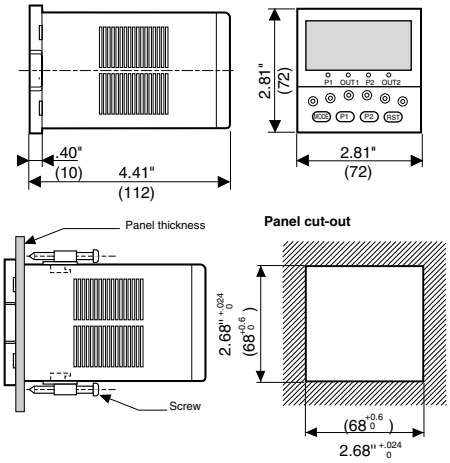
RF Emissions (EMC)
CENELEC EN 55022; Class A

Vibration limits (in 3 axes)
IEC 68-2-6, 10-55Hz/.0375mm

WIRING:



DIMENSIONS: inches (mm)



Products and specifications subject to change without notice.
Consult factory for application assistance.

Batch counter function

Principle

P1 is the “batch” preset.

When P2 is displayed, the value displayed on the upper digits represents the current counter value (reset to P2).
In this configuration the “RST” key on the front panel reinitializes the current value.
When P1 (batch preset) is displayed, the value displayed on the upper digits represents the value of the Batch counter.

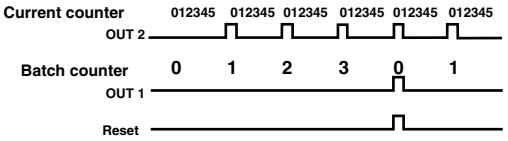
In this configuration the “RST” key on the front panel resets the batch counter.

An “electrical” reset (RST terminal) still resets the current counter value and that of the batch counter.

Example

On a packing line, bottles need to be counted into packs of 6 bottles and then dispatched in a box containing a batch of 4 packs.

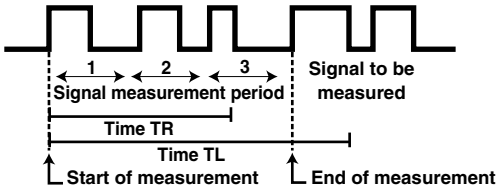
P2: current counter preset value: 00006
P1: batch counter preset value: 00004



Tachometer function

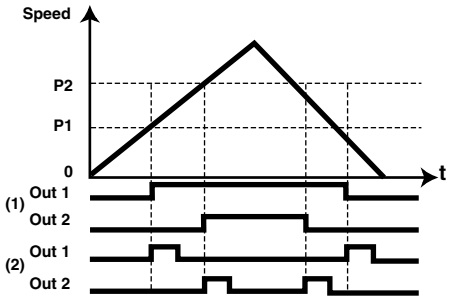
Measurement principle

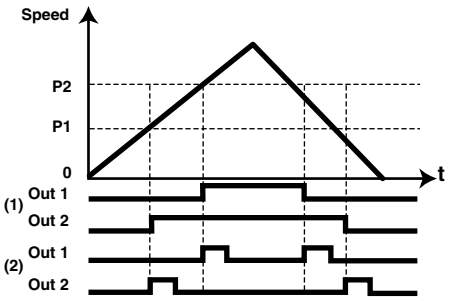
Measurement begins on a rising edge of the signal to be measured.
The measurement time is greater than TR, but less than TL.
Measurement stops at the end of the current period (3), after TR.
If the period (3) does not end before TL, the measurement result will be zero (0).



Measurement precision: 100 + (200 / TR) PPM
Example: for TR = 1s ⟶ 300 PPM (0.03%)

The outputs are updated each time measurement ends according to the selected output mode.
– **Maintained output:** output active if the measured speed is greater than the preset speed.
– **Pulsed output:** output activated during time T, when the preset threshold is crossed.

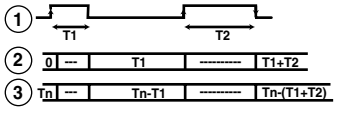




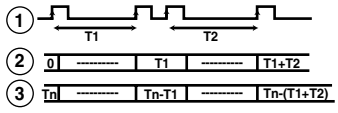
(1) Maintained output **(2) Pulsed output**

Chronometer function (Precision: 150 ppm)

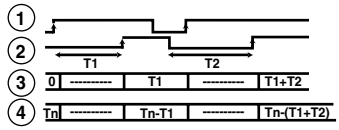
1 - Input IN1
2 - Display (0 → PR), 1-channel pulse measurement
3 - Display (PR → 0), 1-channel pulse measurement



1 - Input IN1
2 - Display (0 → PR), 1-channel pulse measurement
3 - Display (PR → 0), 1-channel pulse measurement



1 - Input IN1 (start counting)
2 - Input IN2 (stop counting)
3 - Display (0 → PR), measurement on 2 separate channels
4 - Display (PR → 0), measurement on 2 separate channels



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