



## Programmable Counter/Timer CT400

- **Two 4 or 8 digit counters with prescales, 2 timers and tachometer.**
- **Two control outputs, 2 reset inputs.**
- **Up/Down, Quadrature count, programmable reset.**
- **Optional RS485 Communications.**
- **Universal switching power supply, 85... 275 VAC.**

### *General Description*

The CT400 is a field configurable multipurpose counter and timer. Linking its internal modules, outputs and inputs, it is possible to create complex counting and timing processes and thus to replace a variety of special instruments.

It can also supplant small PLC's in simple applications with the advantage of having two 4 digits displays and keyboard to enter preset counter parameters.

### *Applications*

The typical applications are of the type that on reaching a final count sends a time pulse to a relay output and resets to zero for a new count. It is possible to concatenate a internal counter with the other. For example the bottles in a box can be counted, when reaching 12, a pulse is sent by the relay-1, return to zero the count and increase the other counter who takes the total number of boxes, which when arriving at 100 boxes sets the relay-2.

Quadrature counting allows to count up/down according to a direction of advance (By example, of transport band).

In this same case. the prescales allow to count in any length unit (e.a. feet).

yards, meters) without concerning the number of pulses feed by the sensor.

### **Inputs**

Consists of an internal module composed of two electrical inputs (Switch NPN or mechanic) this can count in normal or quadrature mode. It has two additional external inputs, programmable for several functions.

### **Operation**

The input module gives to pulses to the 2 internal counters and the tachometer module, each one with its own prescales.

In each counter is programmed a final value so that when its count arrives at this value, it will execute the actions programmed by the user.

These actions are on the output modules (relays) and on the same counter modes (boot), is to say if count stops, returns to zero, continues, or other options.

It is possible to alter the normal execution by means of the external inputs, they according to the programming can for example return to zero, one or both counters, carry out the preprogrammed actions of the output controls, stop and start counting.

### **Digital Communication**

It has optional RS485 serial communications that allows to connect in network up to 32 instruments reporting to a PC computer or simply to send to a printer periodically.

Also it is possible to connect with PLC's by means of a BASIC module or other that can maintain the communication protocol in a serial port.

## **Technical Specifications.**

### **Inputs:**

2 counting inputs for Mechanical Switch, Collector NPN, Logic TTL or CMOS, supplies regulated 5V and 10V to feed the sensor.  
2 additional programmable inputs for reset and other functions.

### **Algorithms:**

unidirectional, quadrature count, time base and tachometer.  
two 4 or 8 digits counters with prescales for each one,  
2 timers associated to the outputs.  
For both counters the action is defined to take on each control when arriving at final values.

### **Reading:**

Two 4 digit displays for selected variables.

### **Outputs:**

2 controls: relays 250VAC/3A. or voltage output for SSR, updated each 31 milisec.  
Communications: (optional). RS485, Connection to PC, printer or PLC.

### **Power Supply**

Switching current way.

Ac: 85... 275 Vac, 7 W, 45... 65 Hertz.

Dc option : 20... 50 Vdc, 7 W.

### **Construction**

Aluminum and Polycarbonate IP65

Total Dimensions: DIN 1/8; 96 x 48 x 175 mm.

Court of panel: 92 x 45 mm.

Weight: 300 grams.

Temperature of operation: 0... 50 °C.

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## PART CODES:

Model:

CT400-H  
CT400-V

Horizontal mount (96mm width, 48mm height)  
Vertical mount (48mm width, 96mm height)

Optional:

- 485  
- DC

RS485 serial communications.  
20.. 60 Vdc power supply.

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## FOR MORE INFORMATION:

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