



Reliable Products
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CT6000 Process Counter

Tachometers, Counters & Displays

Features

- Displays process, batch, total, and rate
- Optional relay outputs and/or 4-20 mA analog output
- Completely field adjustable
- 3 programmable transistor setpoint outputs and inputs
- 115, 230 VAC (50-60 Hz) and 10-30 VDC power options
- Full diagnostic functions
- ETL approved to applicable UL and CSA standards



Description

The CT6000 is a full logic control process counter that can display up to three separate count values and compare them to programmable setpoints. The counter can be programmed by the user for any pulse prescale value. The count can be programmed for up count, down count, quadrature, sum of two channels (A+B), and the difference between the two channels (A-B). The sum and difference are commonly used when the operator needs to display the combined output of two separate but related processes.

Options:

- 4-20 mA output can be programmed to represent any of the three counts or rate. The 4-20 mA output can be scaled to reflect any section of the count range, including operations requiring an inverse output.
- Up to three programmable relay contact outputs rated 250 VAC, 30 VDC at 5 amps resistive load.

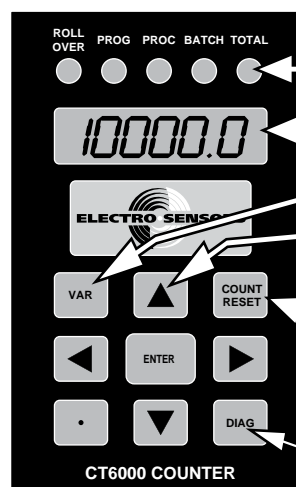
Common Applications

- Applications with setpoints
- Applications with bi-directional counting
- Applications where reset is a non-zero number

Principle of Operation

By using the CT6000 with a shaft-mounted pulser disc or pulser wrap, it generates an alternating magnetic field that is picked up by the large-gap, non-contact sensor. The sensor transmits this speed signal as a digital pulse (frequency) to the CT6000 via a 3-conductor shielded or 4-wire quadrature cable. The CT6000 then compares this frequency signal to its programming and determines the appropriate setpoint output state and display value.

The CT6000 features three transistor outputs that can be set within any of the three counts or rate. These outputs can be programmed to latch (requiring a manual reset), or they can be timed to reset automatically.



Status LEDs give entry mode and operation status

Display window

Used to change or examine program

Cycles the display from process to batch, to total, to rate, and back to process "Proc." LED flashes in rate mode

Used for programming optional analog output and displays in reverse direction (quadrature input required)

Used to test the CT6000



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Specifications

Input Power	
Voltage	115 VAC, 6 VA @ 50/60 Hz, 1/16 Amp, requires external fuse
Optional Voltages	230 VAC, 10-30 VDC
Sensor Input	Switch Selectable
NPN Open-Collector	2,200 Ohm pull up to 12 VDC, 2.5 Volt trigger level
PNP Open-Collector	2,200 Ohm pull down, 2.5 Volt trigger level
Logic Level	2.5 Volt trigger level
Magnetic Pick-up	150 mV peak-to-peak minimum signal, 50 mV trigger level
Maximum Frequency	Up to 20 kHz
Sensor Supply	12 VDC unregulated, 100 mA maximum
Standard I/O	
Standard Inputs	3 programmable switch inputs
Transistor Outputs	3 programmable, transistors are NPN, 30 VDC 150 mA max
Optional Setpoint Outputs (relays)	3 programmable Form A relays, rated 250 VAC 5 Amp, 30 VDC 5 Amp resistive load
Optional Analog Output	1 programmable 4-20 mA output or 0-10 VDC output, 12 bit DAC resolution
Operational	
Response Time	Minimum 0.02 seconds
Modes of Operation	Process, Batch, Total, Rate
Setpoint Presets	Process, Batch, Total, Rate
Display Update Time	0.5 second update for counters, 1 second for rate
Input Modes	Channel A, Channel B, Sum, Difference, and Quadrature
Mechanical	
Enclosure	ABS Plastic 94V-0
Keypad	Polycarbonate Tactile Switch Pad, Chemical Resistant, and Splash Proof
Display	6-Digit, 0.3" Height, 7-Segment Displays, 5-Status LEDs

Operating Temperature	0° C to +50° C (+32° F to +122° F)
Humidity	0% to 90% Non-Condensing
Dimensions	3.10" w x 4.85" h x 6.25" l
Panel Cutout	2.61" w x 4.31" h

Ordering

Model	Part Number
115 VAC	800-074000
Relay 115 VAC	800-074200
230 VAC	800-074100
Relay 230 VAC	800-074300
10-30 VDC	800-074101
Relay 10-30 VDC	800-074301
4-20, 115 VAC	800-074400
4-20, 230 VAC	800-074500
4-20, 10-30 VDC	800-074503
Relay 4-20, 115 VAC	800-074600
Relay 4-20, 230 VAC	800-074700
Relay 4-20, 10-30 VDC	800-074703
0-10, 115 VAC	800-074501
Relay 0-10, 115 VAC	800-074701
0-10, 230 VAC	800-074502
Relay 0-10, 230 VAC	800-074702
0-10, 10-30 VDC	800-074504
Relay 0-10, 10-30 VDC	800-074704
Options	
Explosion Proof Enclosure	305-001400
NEMA 4X Enclosure Kit	725-003600
Faceplate Kit	725-000010

Customization

If one of our standard products does not meet your specifications, please call one of our applications specialists. Many of our products can be customized to fit specific needs.

Additional Information

See the CT6000 Installation and Operating Manual for complete details, specifications, and programming instructions.