

CT Series

DIN W48×H48mm, W72×H36mm, W72×H72mm Counter/Timer

■ Features

- Available to set 6 digits (0.00001 to 999999) prescale value (4digit: 0.001 to 9999)
- Built-in Modbus communication function (Communication model)
- Available to set the One-Shot output time in 10ms. (0.01sec. to 99.99sec.)
- Increase contact capacity to 5A (CTS, CTM Series)
- Available to set Count Start Point. (Initial value)
- Added BATCH counter function (CTM Series)
- Added Counter Up-1 / Up-2 / Down-1 / Down-2 input modes
- Added Counter TOTAL / HOLD operation modes in the indicator
- Added Timer TOTAL / HOLD / On Time Display operation modes in the indicator
- Added Timer INT2 / NFD / NFD.1 / INTG output modes
- Added Timer range 999.999s / 9999m59 / 99999.9h



 Please read "Caution for your safety" in operation manual before using.



■ DAQMaster (Comprehensive Device Management Program)

- DAQMaster is comprehensive device management program for convenient management of parameters and multiple device data monitoring.
- Visit our website (www.autonics.com) to download user manual and comprehensive device management program.

Item	Minimum requirements
System	IBM PC compatible computer with Intel Pentium III or above
Operations	Microsoft Windows 98/NT/XP/Vista/7/8/10
Memory	256MB+
Hard disk	1GB+ of available hard disk space
VGA	Resolution: 1024×768 or higher
Others	RS-232 serial port(9-pin), USB port



■ Ordering Information

CT 6 M - 2P 4 T

Communication	No mark	None
	T	RS 485
Power supply	4	100-240VAC 50/60Hz
	2	24VAC 50/60Hz, 24-48VDC
Output	2P	Dual preset
	1P	Single preset
	I	Indicator
Size	S	DIN W48×H48mm
	Y	DIN W72×H36mm
	M	DIN W72×H72mm
Digit	4	9999 (4digit)
	6	999999 (6digit)
Item	CT	Counter/Timer

※A shaded (□) part is upgraded or added function.

※4digit type does not exist in the indicator type.

Programmable Counter/Timer

■ Specifications

Series		CTS	CTY	CTM	
Digit		4	6	6	
Model	Dual Preset	CT4S-2P□□	CT6S-2P□□	CT6Y-2P□□	
	Single Preset	CT4S-1P□□	CT6S-1P□□	CT6Y-1P□□	
	Single Preset	—	CT6S-1□□	CT6Y-1□□	
Digit size	Single Preset	11mm	10mm	10mm	
	Single Preset	8mm	7mm	7mm	
Power Supply	AC power	100-240VAC 50/60Hz			
	AC/DC power	24VAC 50/60Hz, 24-48VDC			
Allowable voltage range		90 to 110% of rated voltage			
Power consumption	AC power	Max. 12VA (100-240VAC 50/60Hz)			
	AC/DC power	Max. 10VA (24VAC 50/60Hz), Max. 8W (24-48VDC)			
INA/INB Max. counting speed		Selectable 1cps / 30cps / 1kcps / 5kcps / 10kcps			
Min. input signal width	Counter	Reset signal: Selectable 1ms, 20ms			
	Timer	INA, INB RESET: Selectable 1ms, 20ms		INA, INH, RESET, INHIBIT, BATCH RESET: Selectable 1ms, 20ms	
Input		Selectable voltage input or No-voltage input [Voltage input] Input impedance is 5.4kΩ, 'H' level: 5-30VDC, 'L' level: 0-2VDC [No-voltage input] Short-circuit impedance: Max. 1kΩ, Residual voltage: Max. 2VDC			
One-shot output		Count, timer: Selectable 0.01s to 99.99s			
Control output	Without com.	Contact output	Dual preset: SPST (1a) 2EA Single preset: SPDT (1c) 1EA		
		Solid state output	Dual preset: 1NPN open collector Single preset: 1NPN open collector		
	Without com.	Contact output	Dual preset: SPST (1a)2EA Single preset: SPDT (1c)1EA		
		Solid state output	Dual preset: - Single preset: 1NPN open collector		
	Without com.	Contact output	250VAC 5A resistive load	250VAC 3A resistive load	250VAC 5A resistive load
		Solid state output	30VDC Max. 100mA Max.		
External sensor power		12VDC ±10%, 100mA Max.			
Memory retention		10years (When using non-volatile semiconductor memory type)			
Timer	Repeat error				
	SET error	Power ON Start: Max. ±0.01% ±0.05 sec			
	Voltage error	Signal Start: Max. ±0.01% ±0.03 sec			
	Temperature error				
Insulation resistance		Min. 100MΩ (500VDC Megger)			
Dielectric strength		2,000VAC 50/60Hz for 1minute			
Noise strength (AC Power)		±2kV the square wave noise (pulse width:1μs) by the noise simulator			
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each X, Y, Z direction for 1 hour			
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each X, Y, Z direction for 10 min.			
Shock	Mechanical	300m/s ² (approx. 30G) in each X, Y, Z direction for 3 times			
	Malfunction	100m/s ² (approx. 10G) in each X, Y, Z direction for 3 times			
Relay	Mechanical	Min. 10,000,000 operations			
Life cycle	Electrical	Min. 100,000 operations			
Protection structure		IP65 (Front panel only)			
Environment	Ambient temperature	-10 to 55°C, storage: -25 to 65°C			
	Ambient humidity	35 to 85%RH, storage: 35 to 85%RH			
Approval		CE, RoHS			
Unit weight		Approx. 159g	Approx. 149g	Approx. 253g	

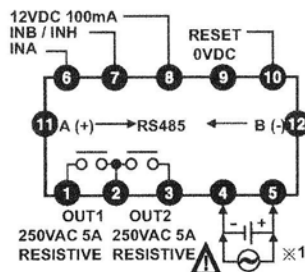
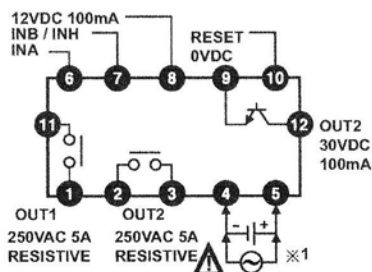
× Environment resistance is rated at no freezing or condensation.

■ Communication Specification

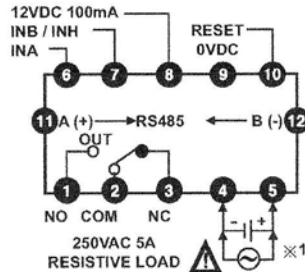
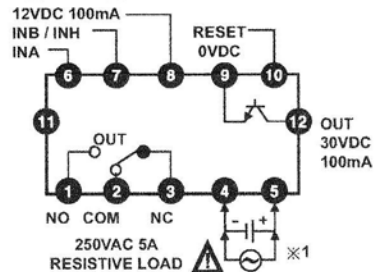
Protocol	Modbus RTU (16bit CRC)
Connection method	RS485
Application standard	Compliance with EIA RS485
Number of connections	31, it is available to set address 1 to 127
Communication method	Half Duplex
Synchronous method	Asynchronous
Communication distance	Within max. 800 meter
Communication speed	2,400/4,800/9,600/19,200/38,400bps (Factory default: 9,600bps)
Response waiting time	5 to 99ms (Factory default: 20ms)
Start bit	1-bit (Fixed)
Data bit	8-bit (Fixed)
Parity bit	None, Even, Odd (Factory default: None)
Stop bit	1, 2-bit (Factory default: 2-bit)

 Be careful that connections are different between communication model and non-communication model when wiring.

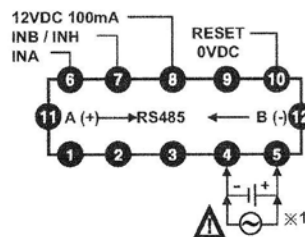
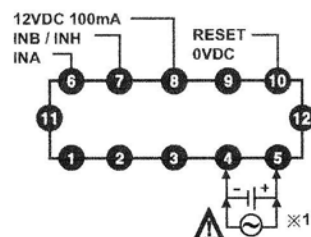
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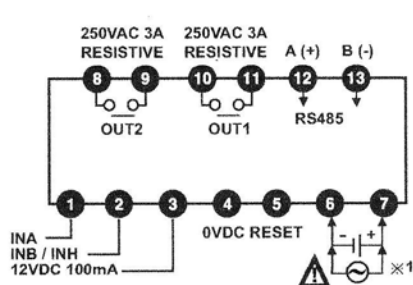
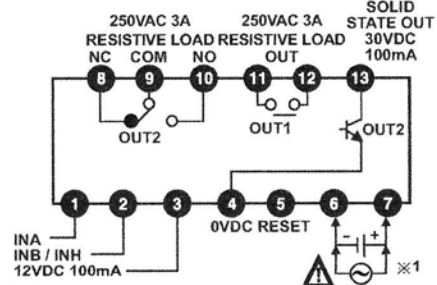
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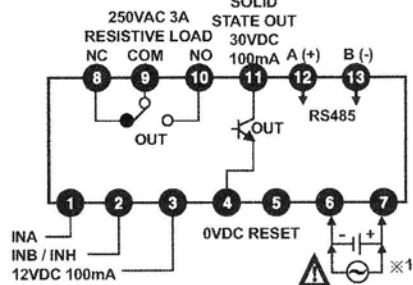
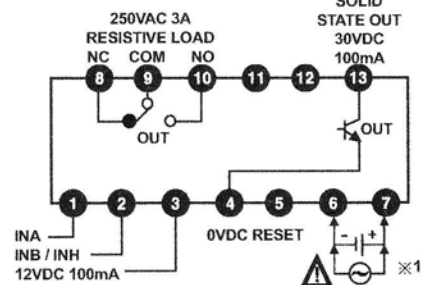
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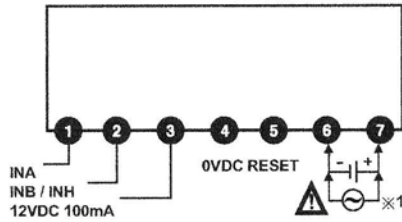


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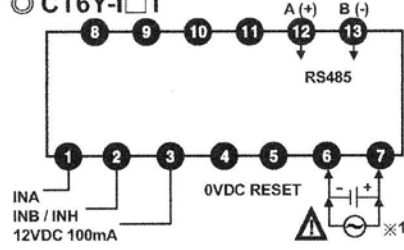


Programmable Counter/Timer

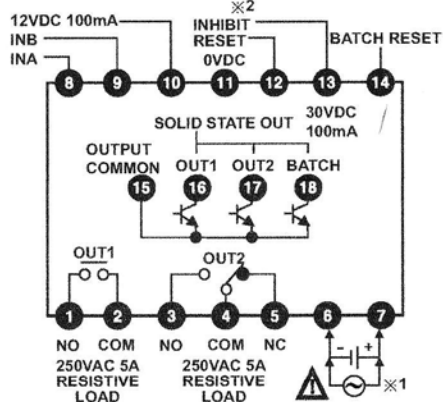
◎ CT6Y-I□



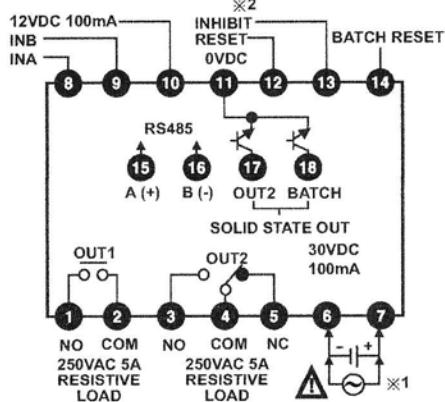
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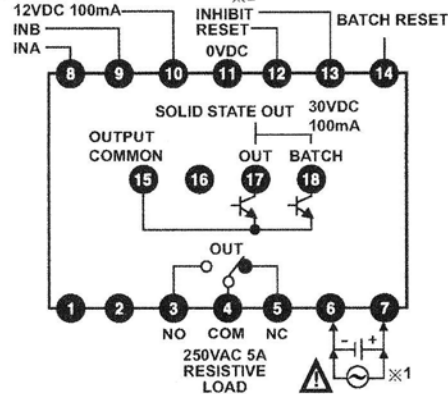
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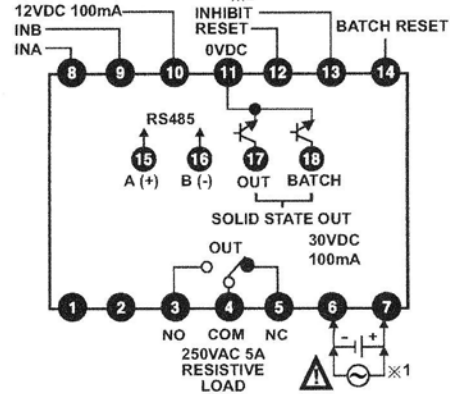
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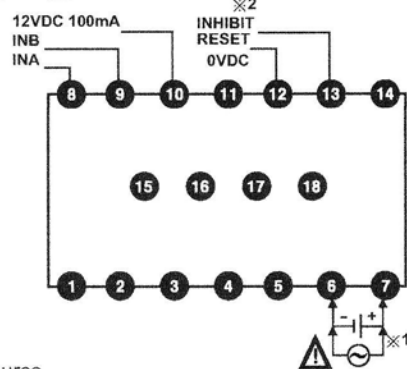
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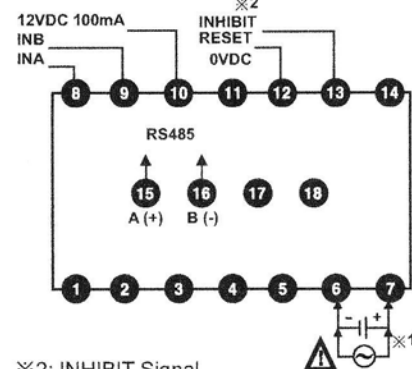
◎ CT6M-1P□T



◎ CT6M-I□



◎ CT6M-I□T



※1: Source

- AC Power: 100-240VAC 50/60Hz
- AC/DC Power: 24-48VDC, 24VAC 50/60Hz

※2: INHIBIT Signal

- Counter operation: If INHIBIT signal is applied, count input will be prohibited.
- Timer operation: If INHIBIT signal is applied, time progressing will stop. (HOLD)

(A)	Photoelectric Sensors
(B)	Fiber Optic Sensors
(C)	Door/Area Sensors
(D)	Proximity Sensors
(E)	Pressure Sensors
(F)	Rotary Encoders
(G)	Connectors/ Sockets
(H)	Temperature Controllers
(I)	SSRs / Power Controllers
(J)	Counters
(K)	Timers
(L)	Panel Meters
(M)	Tacho / Speed / Pulse Meters
(N)	Display Units
(O)	Sensor Controllers
(P)	Switching Mode Power Supplies
(Q)	Stepper Motors & Drivers & Controllers
(R)	Graphic/ Logic Panels
(S)	Field Network Devices
(T)	Software