

## DIN W48 × H48mm, W72 × H36mm, W72 × H72mm counter/timer

**Upgrade**

### Upgraded functions

- Available to set 6 digits (0.00001 to 999999) prescale value (4 Digit : 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)
- Improved to select memory protection function in the indicator
- 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.**



### Integrated device management program (DAQMaster)

- DAQMaster is an integrated device management program for convenient management of parameters and multiple device data monitoring.
- Visit our website ([www.autonics.com](http://www.autonics.com)) to download user manual and integrated device management program.

< Computer specification for using software >

Item	Recommended specification
Processor	IBM PC compatible computer with Intel Pentium III or above
Operating system	Windows 98 / NT / XP / Vista / 7
RAM	Over 256MB
Hard disk	Over 1GB of available space
VGA	Over 1024 × 768
Communication port	RS232 Serial port, USB port

< DAQMaster screen >



### Ordering information

**CT 6 M - 2P 4 T**

Item	Digit	Size	Output	Power supply	Communication
Digit	4	S DIN W48 × H48mm	2P Dual preset	4 100-240VAC 50/60Hz	Blank
	6				Y DIN W72 × H36mm
Size	M DIN W72 × H72mm	I Indicator	S DIN W48 × H48mm	Y DIN W72 × H36mm	M DIN W72 × H72mm
Item	CT	Counter/Timer			


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

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

- (A) Photo electric sensor
- (B) Fiber optic sensor
- (C) Door/Area sensor
- (D) Proximity sensor
- (E) Pressure sensor
- (F) Rotary encoder
- (G) Connector/Socket
- (H) Temp. controller
- (I) SSR/Power controller
- (J) Counter
- (K) Timer
- (L) Panel meter
- (M) Tacho/Speed/Pulse meter
- (N) Display unit
- (O) Sensor controller
- (P) Switching power supply
- (Q) Stepping motor & Driver & Controller
- (R) Graphic/Logic panel
- (S) Field network device
- (T) Production stoppage models & replacement

# CT Series

## Specifications

Series		CTS		CTY	CTM
Digit		4	6	6	6
Model	Dual Preset	CT4S-2P□□	CT6S-2P□□	CT6Y-2P□□	CT6M-2P□□
	Single Preset	CT4S-1P□□	CT6S-1P□□	CT6Y-1P□□	CT6M-1P□□
	Indicator	—	CT6S-I□□	CT6Y-I□□	CT6M-I□□
Digit Size	Count value	11mm	10mm	10mm	13mm
	Preset value	8mm	7mm	7mm	9mm
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(AC Power type)			
Power consumption	AC Power	Max. 12VA			
	AC/DC Power	AC : Max. 10VA / DC : Max. 8W			
Max. counting speed		Selectable 1cps, 30cps, 1kcps, 5kcps, or 10kcps			
Min. input signal width	Counter	Reset input : Selectable 1ms or 20ms			
	Timer	INA, INB, RESET : Selectable 1ms or 20ms			INA, INB, RESET, INHIBIT, BATCH RESET: Selectable 1ms or 20ms
Input		Selectable voltage input or No-voltage input -Voltage input : input impedance is 5.4k $\Omega$ , 'H' level : 5-30VDC, 'L' level : 0-2VDC -No-voltage input: short-circuit impedance : Max. 1k $\Omega$ , Residual voltage : Max. 2VDC			
One-shot output		Selectable 0.01s to 99.99s			
Control output	Without com.	Contact output	Dual preset : SPST(1a) 2EA Single preset : SPDT(1c) 1EA	Dual preset : SPST(1a) 1EA, SPDT(1c) 1EA Single preset : SPDT(1c) 1EA	
		Solid state output	Dual preset : 1NPN open collector Single preset : 1NPN open collector		Dual preset:3NPN open collector Single preset:2NPN open collector
	Com.	Contact output	Dual preset : SPST(1a) 2EA Single preset : SPDT(1c) 1EA		Dual preset: SPST(1a), SPDT(1c) Single preset: SPDT(1c)
		Solid state output	—	Dual preset: — Single preset:1NPN open collector	Dual preset:2NPN open collector Single preset:2NPN open collector
	Capacity	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 $\pm$ 10%, 100mA Max.			
Memory retention		10years(When using non-volatile semiconductor memory type)			
Timer accuracy		Repeat error, Set error, voltage error, Temperature error - Power ON Start: Max. $\pm$ 0.01% $\pm$ 0.05 sec. - Signal Start: Max. $\pm$ 0.01% $\pm$ 0.03 sec.			
Insulation resistance		Min. 100M $\Omega$ (500VDC Megger)			
Dielectric strength		2,000VAC 50/60Hz for 1minute			
Noise strength (AC Power)		$\pm$ 2kV the square wave noise(pulse width:1 $\mu$ s) by the noise simulator			
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1 hour			
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes			
Shock	Mechanical	300m/s <sup>2</sup> (Approx. 30G) 3 times at X, Y, Z direction			
	Malfunction	100m/s <sup>2</sup> (Approx. 10G) 3 times at X, Y, Z direction			
Relay Life cycle	Mechanical	Min. 10,000,000 times			
	Electrical	Min. 100,000 times			
Protection		IP65(Front panel only)			
Ambient temperature		-10 to 55 $^{\circ}$ C, Storage temperature : -25 to 65 $^{\circ}$ C			
Ambient humidity		35 to 85%RH, Storage humidity : 35 to 85%RH			
Approval					
Unit weight		Approx. 159g	Approx. 149g	Approx. 253g	

## 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. 800meter
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	1bit(Fixed)
Data bit	8bits(Fixed)
Parity bit	None, Even, Odd(Factory default : None)
Stop bit	1, 2bit(Factory default : 2bit)