AUTONICS CT6Y-I2

AUTONICS CT6Y-I2 Digital Counter/Timer Instruction Manual

Model: CT6Y-I2

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the AUTONICS CT6Y-I2 Digital Counter/Timer. The CT6Y-I2 is a compact, 6-digit LED indicator designed for precise counting and timing applications, featuring selectable PNP or NPN input and flexible power options.

2. Safety Information

Please read and understand all safety precautions before installing or operating the CT6Y-I2 unit. Failure to follow these instructions may result in personal injury or product damage.

- Ensure power is disconnected before wiring or performing maintenance.
- Do not disassemble or modify the unit.
- Install the unit in an environment free from excessive dust, moisture, vibration, and corrosive gases.
- Use appropriate wire gauges and ensure secure connections.
- This device is intended for industrial control applications.

3. Product Overview

The AUTONICS CT6Y-I2 is a versatile digital counter/timer with a dual 6-digit LED display. It is designed for panel mounting and offers various input and power supply options.

3.1 Key Features

- Dual 6-Digit LED Display (Red for upper, Green for lower)
- Selectable Input Signal: Voltage (PNP) or No Voltage (NPN)
- Wide Power Supply Range: 24-48VDC / 24VAC
- High Counting Speed: Up to 10,000 counts per second
- Panel Mount Design (W72xH36mm)

- Prescaling Functionality
- Front Key Operation for easy setup and reset

3.2 Front Panel Components

This image shows the front panel of the AUTONICS CT6Y-I2 Digital Counter/Timer. It features a dual 6-digit LED display, with the upper display typically showing the current count/time and the lower display showing the preset value or other parameters. To the right of the display are control buttons: RST (Reset), MD (Mode), and four arrow buttons (Up, Down, Left, Right) for navigation and adjustment. Indicators for OUT, CNT, TMR, LOCK, and PS are visible on the left side of the display, indicating operational status.

- **LED Display:** Shows current count/time and settings.
- **RST Button:** Resets the counter or timer.
- **MD Button:** Used to cycle through modes or confirm settings.
- **Arrow Buttons:** Used for navigating menus and adjusting values.
- **Indicators (OUT, CNT, TMR, LOCK, PS):** Provide visual feedback on the unit's status and selected function.

4. Setup and Installation

4.1 Panel Mounting

The CT6Y-I2 is designed for flush panel mounting. Ensure the panel cutout dimensions are W72mm x H36mm. Secure the unit using the provided mounting brackets.

4.2 Wiring

Refer to the wiring diagram on the unit's casing or in the full technical manual for precise connections. Ensure all connections are secure and correct before applying power.

- **Power Supply:** Connect to 24-48VDC or 24VAC. Verify correct polarity for DC power.
- **Input Signal:** The unit supports selectable Voltage (PNP) or No Voltage (NPN) inputs.
  - **Voltage Input (PNP):** High input voltage (H) is 5-30VDC.

    - **No Voltage Input (NPN):** Low input voltage (L) is 0-2VDC.
- **Output Terminals:** Connect to external devices as required for control or indication.

5. Operating Instructions

The CT6Y-I2 can function as both a counter and a timer. The specific operating mode and parameters are configured via the front panel buttons.

5.1 Basic Operation

- **Power On:** Once wired correctly, apply power. The display will illuminate.
- **Reset (RST):** Press the RST button to clear the current count or timer value.
- **Mode Selection (MD):** Press the MD button to cycle through different operating modes or parameter settings. Hold the MD button to enter setup menus.
- **Value Adjustment (Arrow Buttons):** Use the Up/Down arrow buttons to change numerical values. Use the Left/Right arrow buttons to move the cursor for digit selection during setting adjustments.

5.2 Counter Mode

In counter mode, the unit increments or decrements based on input signals. Configure the input type (PNP/NPN) and counting direction in the setup menu.

- **Counting Speed:** The unit supports high-speed counting up to 10,000 counts per second.
- **Prescaling:** Set the prescaling range from 0.00001 to 99999.9 to adjust the display value relative to the input pulses.

5.3 Timer Mode

In timer mode, the unit measures time intervals. Various timing operations (e.g., ON delay, OFF delay) can be selected. The minimum ON/OFF pulse duration is 0.1ms.

6. Maintenance

The AUTONICS CT6Y-I2 is designed for reliable operation with minimal maintenance.

- **Cleaning:** Gently wipe the front panel with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically check wiring connections for tightness and signs of wear or damage.
- **Environment:** Ensure the operating environment remains within specified conditions (temperature, humidity, absence of corrosive gases).

7. Troubleshooting

If the unit does not operate as expected, consider the following common issues:

- **No Display:** Check power supply connections and voltage. Ensure the unit is receiving power within its specified range (24-48VDC / 24VAC).
- **Incorrect Counting/Timing:** Verify input signal wiring and type (PNP/NPN) settings. Check the prescaling value and minimum ON/OFF pulse settings. Ensure the input signal meets the required voltage levels (H: 5-30VDC, L: 0-2VDC).
- **Buttons Unresponsive:** Check if the unit is in a locked state (indicated by 'LOCK' indicator). Refer to the full manual for unlocking procedures.

- **Erratic Behavior:** Check for electrical noise or interference in the environment. Ensure proper grounding.

For persistent issues, consult the comprehensive technical manual or contact AUTONICS support.

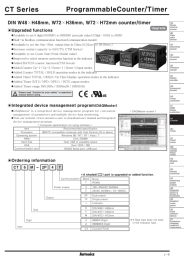
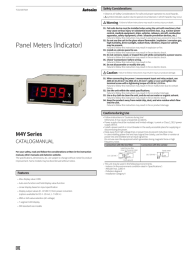
8. Specifications

Parameter	Specification
Model Number	CT6Y-I2
Number of Digits	6-Digit
Display Type	LED (Dual display)
Max. Counting Speed	10,000 counts per second
Input Signal	Selectable Voltage (PNP) / No Voltage (NPN)
Voltage Input (H)	5-30VDC
No Voltage Input (L)	0-2VDC
Power Supply	24-48VDC / 24VAC
Panel Mounting Dimensions (W x H)	72mm x 36mm
Depth	83mm
Prescaling Range	0.00001 to 99999.9
Min. ON/OFF Pulse	0.1ms
Item Weight	9.44 ounces
Standards	cULus, CE
Manufacturer	Autonics

9. Warranty and Support

AUTONICS products are manufactured under strict quality control. For warranty information, please refer to the official AUTONICS website or contact your local distributor. For technical support, product inquiries, or service, please contact AUTONICS customer service directly.
Manufacturer: Autonics
Website: www.autonics.com (Please check for the most current contact information)

Related Documents - CT6Y-I2

	[Autonics CT Series Programmable Counter/Timer - Features & Specifications] Explore the Autonics CT Series Programmable Counter/Timer. This manual details features, specifications, connections, and operations for models like CT6M, CT6Y, CT6S, and CT4S. Learn about Modbus communication and DAQMaster integration.
	[Autonics FX/FXH/FXL /] Autonics FX, FXH, FXL , . / , .
	[Autonics BJ Series Rectangular Photoelectric Sensors Instruction Manual] Comprehensive instruction manual for Autonics BJ Series rectangular photoelectric sensors (Cable Type and Connector Type), covering safety, installation, operation, specifications, and ordering information for various sensing types including Through-beam, Retroreflective, Diffuse, BGS, and Narrow beam.
	[Autonics CT Series Programmable Digital Counters and Timers Product Manual] This product manual provides detailed information on Autonics' CT Series programmable digital counters and timers, covering features, specifications, safety considerations, and operational guidance for models like CT6S, CT6Y, and CT6M.
	[Autonics M4Y Series Panel Meter Indicator Catalog Manual] Detailed catalog manual for the Autonics M4Y Series Panel Meter Indicator, covering features, specifications, safety considerations, and application wiring diagrams.
	[Autonics T3NI/T4VI/T4WI/T4WM Series Temperature Indicator Manual] Comprehensive manual for Autonics T3NI, T4VI, T4WI, and T4WM series temperature indicators, detailing specifications, ordering information, dimensions, connection diagrams, and safety guidelines for industrial applications.