

AUTONICS CT6M-2P4

AUTONICS CT6M-2P4 Digital Counter and Timer Instruction Manual

Model: CT6M-2P4

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of the AUTONICS CT6M-2P4 Digital Counter and Timer. It covers installation, setup, operation, maintenance, and troubleshooting. Please read this manual thoroughly before using the product to ensure correct usage and to prevent potential hazards or damage.

The CT6M-2P4 is a versatile W72xH72mm, 6-digit LED display unit, featuring 2 preset outputs, 2 relay outputs, and 2 NPN outputs, designed for industrial counting and timing applications with a wide power supply range of 100-240 VAC.

2. SAFETY INFORMATION

Warning: Failure to follow these safety instructions may result in electric shock, fire, or serious injury.

- Ensure power is disconnected before installation, wiring, or maintenance.
- This product is designed for industrial use. Do not use it in environments with flammable or explosive gases.
- All wiring must be performed by qualified personnel in accordance with local electrical codes.
- Do not disassemble or modify the unit. Unauthorized modifications can lead to malfunction or safety hazards.
- Verify the power supply voltage matches the product's specifications (100-240 VAC).
- Avoid installing the unit in areas subject to direct sunlight, excessive vibration, dust, or high humidity.

3. PRODUCT OVERVIEW

The AUTONICS CT6M-2P4 is a high-performance digital counter and timer, offering precise control and monitoring for various industrial applications. Its compact design and clear LED display make it suitable for integration into control panels.

3.1 Key Features

- W72xH72mm standard panel size.
- 6-digit LED display for clear visibility.
- Dual preset outputs for flexible control.
- Two independent relay outputs.

- Two independent NPN transistor outputs.
- Wide operating voltage range: 100-240 VAC.
- Multiple operation modes for counting and timing.

3.2 Front Panel Layout



Figure 1: Front panel of the AUTONICS CT6M-2P4. This image displays the 6-digit LED display at the top, followed by several control buttons below it. The buttons are typically used for mode selection, setting values, and resetting the counter/timer. The overall dimensions are W72xH72mm.

3.3 Terminal Block Diagram



Figure 2: Terminal block diagram for the AUTONICS CT6M-2P4. This diagram illustrates the connection points for power supply (100-240 VAC), input signals (e.g., count input, reset input), and output connections (Relay 1, Relay 2, NPN 1, NPN 2). Proper wiring is crucial for correct operation and safety.

4. SETUP

4.1 Mounting

The CT6M-2P4 is designed for panel mounting. Ensure the mounting hole dimensions are W68xH68mm (or as specified in the product datasheet) for a secure fit. The unit can also be mounted on a DIN rail using an appropriate adapter (sold separately).

1. Cut a panel cutout of the specified dimensions.
2. Insert the unit into the cutout from the front.
3. Secure the unit using the supplied mounting brackets from the rear of the panel.

4.2 Wiring

Refer to the terminal block diagram (Figure 2) for correct wiring. Use appropriate gauge wires for power and signal connections. Ensure all connections are tight and secure.

- **Power Supply:** Connect 100-240 VAC to the designated power terminals.
- **Input Signals:** Connect count input sensors (e.g., proximity sensors, encoders) and reset switches to the respective input terminals.
- **Output Connections:** Connect external devices (e.g., relays, solenoids, PLCs) to the Relay 1, Relay 2, NPN 1, and NPN 2 output terminals as required by your application.

Caution: Incorrect wiring can damage the unit or connected equipment. Double-check all connections before applying power.

5. OPERATING INSTRUCTIONS

The CT6M-2P4 offers various operating modes for counting and timing. Refer to the detailed programming guide (usually a separate document or advanced section of the manual) for specific mode configurations. This section covers basic operation.

5.1 Power On

Once wired correctly, apply power (100-240 VAC). The LED display will illuminate, showing the current count or time value,

or an initial setup screen.

5.2 Mode Selection

Use the **MODE** button on the front panel to cycle through different operating modes (e.g., Counter Up, Counter Down, Timer Up, Timer Down, Batch Counter). The display will indicate the currently selected mode.

5.3 Setting Preset Values

To set the desired preset values for outputs:

1. Enter the setting mode (usually by pressing and holding a specific button, e.g., **SET**).
2. Use the **UP** and **DOWN** arrow buttons to adjust the digits for Preset 1 (P1) and Preset 2 (P2).
3. Confirm the settings by pressing the **SET** or **ENTER** button.

5.4 Resetting the Counter/Timer

The counter/timer can be reset manually via a front panel button (e.g., **RESET**) or externally via the designated reset input terminal.

6. MAINTENANCE

The AUTONICS CT6M-2P4 is designed for long-term, reliable operation with minimal maintenance. However, periodic checks can help ensure optimal performance.

- **Cleaning:** Gently wipe the front panel with a soft, dry cloth. Do not use abrasive cleaners or solvents, as they may damage the display or casing.
- **Connection Check:** Periodically inspect all wiring connections for tightness and signs of corrosion or damage.
- **Environmental Check:** Ensure the operating environment remains within the specified temperature and humidity ranges.

Note: There are no user-serviceable parts inside the unit. Refer all internal repairs to qualified service personnel.

7. TROUBLESHOOTING

This section provides solutions to common issues encountered during the operation of the CT6M-2P4. If the problem persists after attempting these solutions, contact technical support.

Problem	Possible Cause	Solution
Unit does not power on.	No power supply or incorrect voltage. Loose wiring.	Check power connections and ensure 100-240 VAC supply. Verify wiring is secure.
Counter/Timer not responding to input.	Incorrect input wiring. Faulty sensor. Incorrect mode setting.	Verify input wiring against diagram. Test the input sensor. Check the operating mode configuration.
Output not activating.	Preset value not reached. Incorrect output wiring. Output mode misconfigured.	Confirm current count/time has reached preset. Check output wiring. Review output operation mode settings.
Display shows "Err".	Internal error or parameter setting issue.	Power cycle the unit. If error persists, consult the full programming manual or contact support.

8. SPECIFICATIONS

Model	CT6M-2P4
Display Method	6-digit LED
Panel Dimensions	W72xH72mm
Power Supply	100-240 VAC ~ 50/60Hz
Outputs	2 Relay Outputs, 2 NPN Outputs
Preset Stages	2 Preset
Mounting Type	Panel Mount (DIN Rail Mount with adapter)
Operation Mode	Manual (various counting/timing modes)
Item Weight	0.9 Pounds (approx. 0.41 kg)

9. WARRANTY AND SUPPORT

AUTONICS products are manufactured under strict quality control. This product is covered by a standard manufacturer's warranty against defects in materials and workmanship for a period specified at the time of purchase. Please retain your proof of purchase.

For technical support, service, or warranty claims, please contact your local AUTONICS distributor or visit the official AUTONICS website for contact information. When contacting support, please have your product model number (CT6M-2P4) and serial number ready.

Official Website: www.autonics.com