

CNT series

Multifunction, Digital Time Delay Relay/Counter

- 10 programmable timing modes + 2 counting modes
- 0.1 sec. to 9,990 hr. programmable timing range
- 1 to 99,900 counting range
- LCD digital display
- Universal (24-240VAC/VDC) and fixed input types
- 10A output relay with DPDT contacts
- Thumbwheel switches for programming

File E22575

File LR15734

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.



Timing and Counting Modes

See the following page for a complete description of all programmable timing and counting modes.

Timing Specifications

Timing Ranges: 0.1 to 99.9 / 1 to 999 sec.; 0.1 to 99.9 / 1 to 999 min.; 0.1 to 99.9 / 1 to 999 / 10 to 9,990 hr.

Timing Adjustment: Digital adjustment via thumbwheel switches.

Tolerance: ±0.5% ±0.05 sec.

Delta Time (for AC units add ±1 cycle 60 Hz.): ±0.1% ±0.05 sec.

Repeatability (Including first cycle of operation.): ±0.1% ±0.05 sec.

Reset Time (power interruption): 45 ms, typ.; 60 ms, max.

Minimum Pulse Width, Control: 50 ms.

Recycle Time: 45 ms, typ.; 60 ms, max.

Counting Specifications

Maximum Count: 1 to 999; 10 to 9,990 (+10); 100 to 99,900 (+100).

Maximum Count Rate: 100 counts per second.

Minimum Pulse Width:Count (Control): 3 ms.; **Reset:** 3 ms.

Available Counting Functions: Operate at preset count and release at preset count.

Contact Data @ 25°C

Arrangements: 2 Form C (DPDT).

Material: Silver-cadmium oxide alloy.

Rating: 10A @ 30VDC or 277VAC, resistive; 1/2 HP @ 250VAC; 1/3 HP @ 120VAC.

Expected Mechanical Life: 10 million operations.

Expected Electrical Life: 100,000 operations, min., at rated load.

Initial Dielectric Strength

Between Open Contacts: 1,000V rms, 60 Hz.

Between All Other Conductors: 1,500V rms, 60Hz.

Ordering Information – Authorized distributors are more likely to stock boldface items listed below.

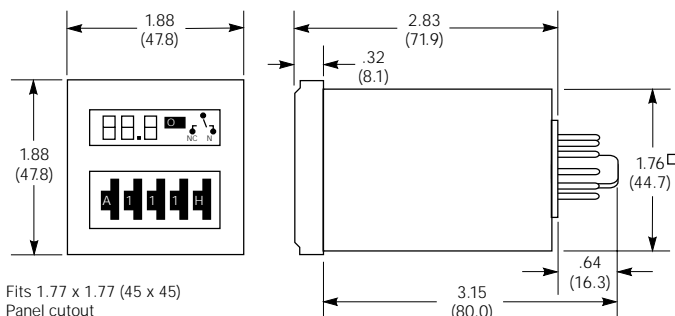
Universal Input Model

Input Voltage	Part Number
24-240VAC/VDC	CNT-35-96

Fixed Input Models

Input Voltage	Part Number
12VDC	CNT-35-26
120VAC	CNT-35-76

Outline Dimensions



Fits 1.77 x 1.77 (45 x 45) Panel cutout

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Input Data @ 25°C

Voltage: Universal Input Type: 24 - 240V ±15%, 50/60 Hz. AC or DC.

Fixed Input Types: 120VAC ±15%, 50/60 Hz and 12VDC.

Power Requirement:

Universal Input Type: 10VA @ 240VAC; 5VA @ 120VAC; 1VA @ 24VAC. 10W @ 240VDC; 5W @ 120VDC; 1W @ 24VDC.

Fixed Input Types: 3VA @ 120VAC; 3W @ 12VDC.

Transient Protection: Yes.

Reverse Voltage Protection: Yes.

Input Voltages & Limits @ 25°C

Input Type	Nominal Voltage	Minimum Voltage	Maximum Voltage
Universal	24-240VAC/VDC	20.4VAC/VDC	276VAC/VDC
	120VAC	102VAC	138VAC
Fixed	12VDC	10.2VDC	13.8VDC

Note: DC voltage must be filtered (5% p-p ripple max. at nom. voltage). AC models will operate on 50 or 60 Hz.

Environmental Data

Temperature Range: Storage: -20°C to +70°C.

Operating: -10°C to +55°C.

Humidity: 85% relative humidity, non-condensing.

Mechanical Data

Termination: 11-pin octal style plug.

Enclosure: Beige plastic 1/16 DIN case.

Sockets: Fits either 27E123 or 27E892 (snap-on) screw terminal sockets.

Weight: 4.3 oz. (122g) approximately.

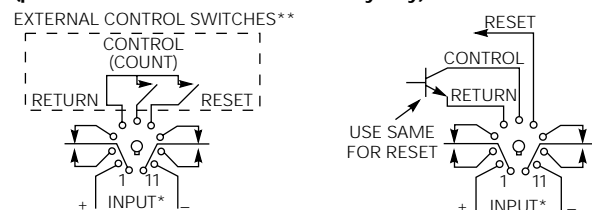
External Control: CONTROL, RESET: Active on contact closure or solid state switch closure to RETURN, 0-1.0VDC maximum voltage level (see wiring diagrams for interface circuits).

Accessories

Part Number	Name	Description
SSA-24C667	Mounting Clip	Ratchet-fit clip slides onto CNT from behind to secure CNT in panel mount applications.
SSA-24C668	Protective Cover	Clear, flexible cover slips snugly over bezel of CNT to help protect against dust and moisture. Durable cover also helps prevent inadvertent changes of programming switch settings.

Wiring Diagrams (Bottom Views)

(pins numbered clockwise from keyway)



* **Note:** Input polarity for DC operation. For most reliable operation on AC, connect high side to "+" and low side to "-".

** **Important:** A dry circuit switch is recommended. A "dry circuit" switch is one rated to reliably switch currents of less than 50mA. Use of a switch rated for other than dry circuit may result in failure of the time delay relay to function properly.

Specifications and availability subject to change.

www.tycoelectronics.com
Technical support:
Refer to inside back cover.