

ELECTRONIC TIMING RELAYS



SERIES ETR PRODUCT PROFILE

The c3controls family of **Electronic Timing Relays** include a variety of devices with single, dual, and multi-functions, and timing ranges from 0.01 seconds to 9,999 hours to satisfy the most basic to highly complex timing applications. Their compact size (17.5mm, 22.5mm, and 45mm wide) and DIN Rail, Panel, Socket, and enclosure door mounting flexibility ensures they can be installed in virtually any control panel. Devices are available with multi-voltage supply design to help reduce inventory requirements.

FEATURES AND BENEFITS:

17.5mm Multi-Function—10 Range

- Wide variety of operating modes to satisfy virtually any control application requirement: ON-Delay (Energize Delay), Interval Delay, Pulse Output, Repeat Cycle Equal (OFF first), Repeat Cycle Equal (ON first), Delay on Break, Delay on Break with Totalize, Delay on Make/Delay on Break, Interval after Break, Interval with Totalize, Latching Relay, Single Shot, Re-Triggerable Single Shot.
- Repeat tripping accuracy of 0.5% for precise control application performance.
- Accepts multi-voltage supply input from 20 ~ 240V AC and 12 ~ 240V DC reducing your inventory requirements.
- 17.5mm width design reduces panel space requirements and is smaller than most commonly available timing relays.
- SPDT hard contact for switching AC and DC loads.
- 35mm DIN rail mounting for fast and easy installation.
- IP20 terminals guard against accidental contact with live parts.

22.5mm Dual-Function, Off-Delay & Star (Wye) Delta

- Dual-Function, 12 Range: ON-Delay and Interval Delay operating modes.
- Single-Function: OFF-Delay and Star-Delta (Wye-Delta).
- Repeat tripping accuracy of 0.5% for precise control application performance.
- Versions available accepting multi-voltage supply inputs with a range of 20 ~ 240V AC and 12 ~ 240V DC reducing your inventory requirements.
- Compact design reduces panel space requirements.
- SPDT and DPDT hard contacts for switching AC and DC loads.
- 35mm DIN rail mounting for fast and easy installation or panel mounting for a more secure installation in high-vibration applications.
- IP20 terminals guard against accidental contact with live parts.

45mm Socket Mount Dual-Function—12 Range

- Operating modes: ON-Delay and Interval Delay.
- Repeat tripping accuracy of 0.5% for precise control application performance.
- Versions available accepting multi-voltage supply inputs with a range of 20 ~ 240V AC and 12 ~ 240V DC reducing your inventory requirements.
- Compact design reduces panel space requirements.
- DPDT hard contact for switching AC and DC loads.
- 8 pin socket mounting onto a 35mm DIN Rail or panel, or the timing relay can be installed on an enclosure door for fast and easy installation.

45mm Digital

- Advanced features include:
 - Various Reset Modes: front panel (selectable), remote, and on power interruption
 - 2 Set points
 - Start Input: gate/pulse (programmable)
 - Batch counting
 - Counting Direction: up and down
 - Memory Retention: 10 years
 - Configuration Lock: password protected
- Multi-function to satisfy virtually any control application requirement: ON-Delay (Energize Delay), Interval Delay, Cyclic ON First, Cyclic OFF First, Forward-Pause-Reverse, Instantaneous + Delayed, Batch.
- Intuitive key pad allows operating modes and timing ranges to be fully programmable from the front of the timing relay.
- Timing Ranges from 0.01 seconds to 9999 hours.
- Repeat tripping accuracy of 0.05% for the most precise and exact control application performance.
- Versions available accepting multi-voltage supply inputs with a range of 85V to 270V AC/DC, reducing inventory requirements.
- Compact design, only 45mm wide x 45mm high (1-3/4" x 1-3/4") [1/16 DIN]—reduces panel space requirements.
- Two (2) SPST (NO) hard contacts for switching 5A @ 250V AC and 24V DC resistive loads.
- IP20 terminals guard against accidental contact with live parts.

UNIQUE PRODUCT LINE FEATURES

- User selectable operating modes and timing ranges with convenient, front accessible setting dials and DIP switches
- DIP switches are protected by a cover to prevent the ingress of dust and other contaminations. Cover is transparent so the switch settings can be easily checked
- LED indication of Power ON and Relay ON—for fast and easy troubleshooting
- Terminals, connection diagrams, operating modes, and DIP switch settings are clearly marked on the timing relay for easy commissioning, wiring, and troubleshooting—reducing downtime and installation time



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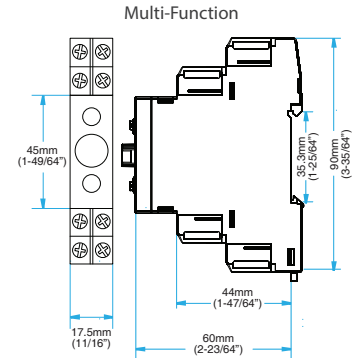
ELECTRONIC TIMING RELAYS

SPECIFICATIONS

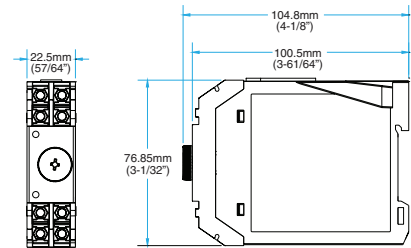
| | 17.5MM MULTI-FUNCTION 10 RANGE | 22.5MM DUAL-FUNCTION 12 RANGE |
|---------------------------|---|--|
| TIMING PERFORMANCE | | |
| Operating Modes | ON-Delay (Energize Delay), Interval Delay, Pulse Output, Repeat Cycle Equal (OFF first/ON first), Delay on Break, Delay on Break with Totalize, Delay on Make/Delay on Break, Interval after Break, Interval with Totalize, Latching Relay, Single Shot, Re-Triggerable Single Shot | ON-Delay (Energize Delay), Interval Delay |
| Timing Ranges | Seconds: 1/3/10/30 Minutes: 1/3/10/30 Hours: 1/3 | Seconds: 1/3/10/30 Minutes: 1/3/10/30 Hours: 1/3/10/30 |
| Output Contact | SPDT (1 Changeover) | DPDT (2 Changeover) |
| ELECTRICAL | | |
| Operating Voltages | 20~240V AC (AC: 50/60 Hz), 12~240V DC | 20~240V AC (50/60 Hz); 12~240V DC |
| Power Consumption | 3.2 VA Max. | 2VA Max. |
| Output Rating | 5A @ 250V AC, 24V DC Resistive | 5A @ 250V AC, 24V DC Resistive |
| CONSTRUCTION | | |
| Ingress Protection | IP20 Guarded Terminals | IP20 Guarded Terminals |
| | 22MM OFF-DELAY | 22.5MM STAR (WYE) DELTA |
| TIMING PERFORMANCE | | |
| Operating Modes | OFF-Delay (De-Energize Delay) | Star-Delta (Wye Delta) |
| Timing Ranges | Seconds: 180 (factory set) | Starting Time: 30/60 seconds Changeover Time: 40/100 milli-seconds |
| Output Contact | DPDT (2 Changeover) | 1 SPDT (1 Changeover) for Star (Wye); 1 SPDT (1 Changeover) for Delta |
| ELECTRICAL | | |
| Operating Voltages | 110~240V AC/DC (AC: 50/60 Hz) | 110V 50 Hz/120V 60 Hz 400~415V 50 Hz /480V 60Hz |
| Power Consumption | 2.5 VA Max. | 10 VA Max. |
| Output Rating | 5A @ 250V AC, 28V DC Resistive | 5A @ 250V AC, 24V DC Resistive |
| CONSTRUCTION | | |
| Ingress Protection | IP20 Guarded Terminals | IP20 Guarded Terminals |
| | 45MM SOCKET MOUNT DUAL-FUNCTION 12 RANGE | 45MM DIGITAL PROGRAMMABLE |
| TIMING PERFORMANCE | | |
| Operating Modes | ON-Delay (Energize Delay) and Interval Delay | ON-Delay (Energize Delay), Interval Delay, Cyclic ON First, Cyclic OFF First, Forward-Pause-Reverse, Instantaneous + Delayed, Timer, Batch |
| Set Points | — | 2 |
| Timing Ranges | Seconds: 1/3/10/30 Minutes: 1/3/10/30 Hours: 1/3/10/30 | Seconds: 99.99/999.9/9999 Minutes: Seconds: 99:59 Minutes: 999.9/9999 Hours: Minutes: 99:59 Hours: 999.9/9999 |
| Start Input | — | Gate/Pulse Start (programmable) |
| Memory | — | 10 Years |
| Output Contact | DPDT (2 Changeover) | 2 SPST (NO) |
| ELECTRICAL | | |
| Operating Voltages | 20~240V AC (50/60 Hz) 12~240V DC | 85~270V AC/DC (AC:50/60 Hz), 24V DC |
| Power Consumption | 2 VA Max. | 5VA Max. |
| Output Rating | 5A @ 250V AC, 24V DC Resistive | 5A @ 250V AC, 24V DC Resistive |
| CONSTRUCTION | | |
| Ingress Protection | IP20 Guarded Terminals | IP20 Guarded Terminals |
| Exterior Bezel | IP40 | IP65 |
| ROHS COMPLIANCE | For RoHS compliance documentation by product, refer to www.c3controls.com . | |

DIMENSIONS

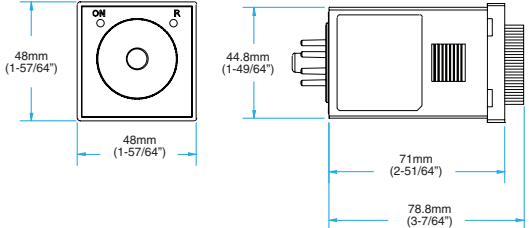
17.5mm ETR



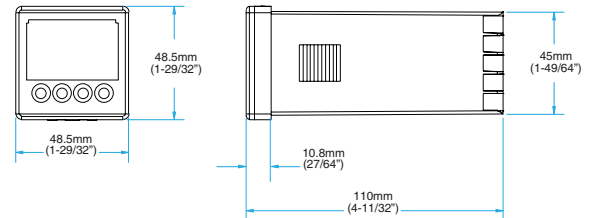
22.5mm ETR



45mm Socket Mounted ETR



Digital Programmable ETR



CERTIFICATIONS

Conformity to Standards:

UL 61010-1, 508

C22.2 No. 61010-1, No. 14
IEC 61000-4

Certifications:

UL File#: E329857 (Guide: QUXX2, QUXX8),
E68568 (Guide NKCR, NKCR8)

CE Marked (per EU Low Voltage Directive
2006/95/EC, EMC 2004/108/EC and
RoHS Directive 2011/65/EU)



Visit c3controls.com to download product certifications.



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