

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, Cyclic & Star (Wye) Delta

- Dual-Function, 8 and 12 Range: ON-Delay and Interval Delay operating modes.
- Single-Function: OFF-Delay, Cyclic, 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



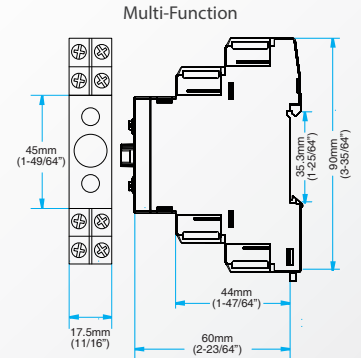
ELECTRONIC TIMING RELAYS

SPECIFICATIONS

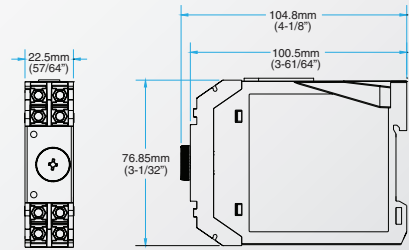
	17.5MM MULTI-FUNCTION 10 RANGE	22.5MM DUAL-FUNCTION 8 RANGE	
TIMING PERFORMANCE			
Operating Modes	ON-Delay (Energize Delay), Interval Delay, Pulse Output, Repeat Cycle Equal (OFF first/ON first), Delay on Break, Delay on Break with Totalize, Delay on Make/Delay on Break, Interval after Break, Interval 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: 3/10/30/60 Minutes: 3/10/30/60	
Output Contact	SPDT (1 Changeover)	SPDT (1 Changeover)	
ELECTRICAL			
Operating Voltages	20~240V AC (AC: 50/60 Hz), 12~240V DC	230V 50 Hz/240V 60 Hz; 24V AC/DC	
Power Consumption	3.2 VA Max.	6VA Max.	
Output Rating	5A @ 250V AC, 24V DC Resistive	5A @ 250V AC, 24V DC Resistive	
CONSTRUCTION			
Ingress Protection	IP20 Guarded Terminals	IP20 Guarded Terminals	
	22.5MM DUAL-FUNCTION 12 RANGE	22MM OFF-DELAY	22.5MM CYCLIC
TIMING PERFORMANCE			
Operating Modes	ON-Delay (Energize Delay), Interval Delay	OFF-Delay (De-Energize Delay)	Cyclic, "ON first" and "OFF first" (Selectable via DIP switches)
Timing Ranges	Seconds: 1/3/10/30 Minutes: 1/3/10/30 Hours: 1/3/10/30	Seconds: 60/180 (factory set)	Seconds: 1/10 Minutes: 1/10 Hours: 1/10
Output Contact	DPDT (2 Changeover)	DPDT (2 Changeover)	DPDT (2 Changeover)
ELECTRICAL			
Operating Voltages	20~240V AC (50/60 Hz); 12~240V DC	110~240V AC/DC (AC: 50/60 Hz)	20~240V AC (50/60 Hz); 12~240V DC
Power Consumption	2 VA Max.	2.5 VA Max.	2VA Max.
Output Rating	5A @ 250V AC, 24V DC Resistive	5A @ 250V AC, 28V DC Resistive	5A @ 250V AC, 24V DC Resistive
CONSTRUCTION			
Ingress Protection	IP20 Guarded Terminals	IP20 Guarded Terminals	IP20 Guarded Terminals
	22.5MM STAR (WYE) DELTA	45MM SOCKET MOUNT DUAL-FUNCTION 12 RANGE	DIGITAL PROGRAMMABLE
TIMING PERFORMANCE			
Operating Modes	Star-Delta (Wye Delta)	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	Starting Time: 30/60 seconds Changeover Time: 40/100 milli-seconds	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	1 SPDT (1 Changeover) for Star (Wye); 1 SPDT (1 Changeover) for Delta	DPDT (2 Changeover)	2 SPST (NO)
ELECTRICAL			
Operating Voltages	110V 50 Hz/120V 60 Hz 230V 50 Hz/240V 60 Hz 400~415V 50 Hz	20~240V AC (50/60 Hz) 12~240V DC	85~270V AC/DC (AC: 50/60 Hz), 24V DC
Power Consumption	10 VA Max.	2 VA Max.	5VA Max.
Output Rating	5A @ 250V AC, 24V DC Resistive	5A @ 250V AC, 24V DC Resistive	5A @ 250V AC, 24V DC Resistive
CONSTRUCTION			
Ingress Protection	IP20 Guarded Terminals	IP20 Guarded Terminals	IP20 Guarded Terminals
Exterior Bezel	—	IP40	IP65
ROHS COMPLIANCE	For RoHS compliance documentation by product, refer to www.c3controls.com .		

DIMENSIONS

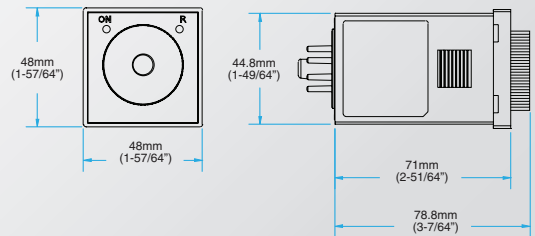
17.5mm ETR



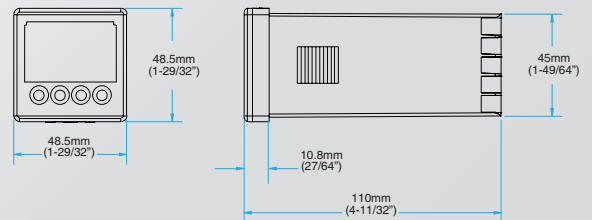
22.5mm ETR



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)



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