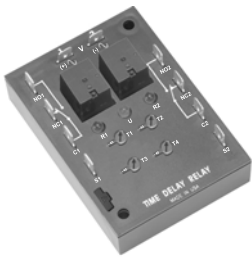


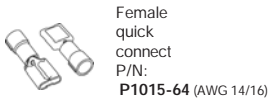
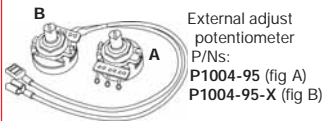
ERPO Series Dual ProgramaCube® Dual Relay Output Module



- Dual I/O Programmable Timer and Logic Module
- Factory Programmed to Your Requirements
- Can replace up to 6 Separate Timers
- Cost Effective for OEM Equipment
- 24 Standard Timing Functions to Choose From
- Dual Isolated SPDT Relay Outputs
- Dual Initiate Switches to Start Functions
- 4 Onboard, Fixed, or External Adjustments
- 12 to 230 V Input Voltages in 5 Ranges
- 3 LED Indicators, Green - Input On, Red-Relay Energized

Approvals:

Accessories



See accessory pages for specifications.

Description

The ERPO Series is a factory programmed dual switch input, dual relay output, timer and counter logic module. The ERPO is designed to offer custom controller capabilities without the long development time associated with a dedicated control board. By using this ProgramaCube® approach, new user functions and time ranges, can be created quickly and inserted into CE marked, UL recognized, and CSA certified modules. This approach eliminates three of the most time consuming steps in the custom product development process. Upon approval of your user function, manufacturing of production quantities can be scheduled without lengthy delays. Unlike PLC's and other user programmable controls, no programming experience is required. You outline the required function by constructing a time diagram and a description of the operation; including which time delays are fixed and which are onboard or externally adjustable. Our technical support team will take it from there. A customer specified function can include predetermined count targets and up to 4 adjustable time delays. It can include any combination of the typical timing and counting functions available in traditional timers and predetermined counters. The input switches can be used to initiate time delays or count sequences, restart the function, or monitor alarm contacts. The ERPO programmable logic modules are encapsulated to protect the electronic circuitry against shock, vibration and humidity. They are backed by our exclusive 10 year warranty.

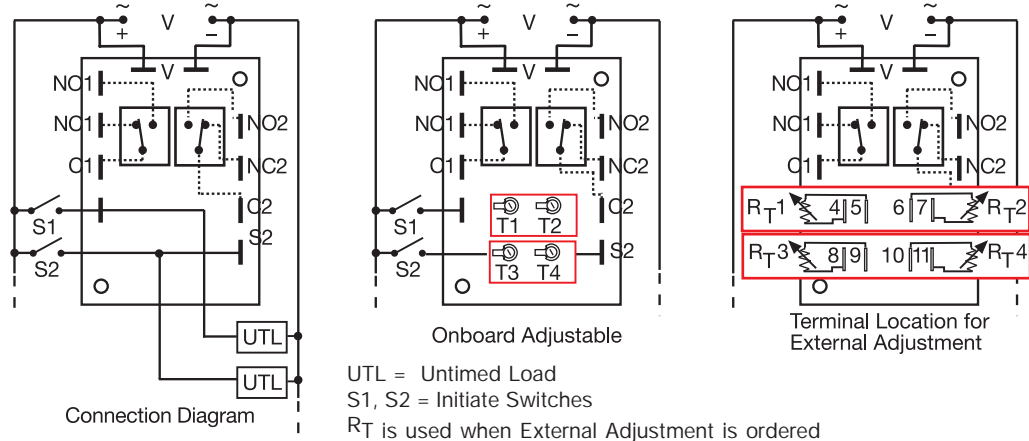
Standard Time Delay Ranges

1 - 0.1... 10 s	(min. custom range 1 s)
2 - 1... 100 s	(min. custom range 10 s)
3 - 10...1000 s	(min. custom range 100 s)
4 - 0.1... 10 m	(min. custom range 1 m)
5 - 1... 100 m	(min. custom range 10 m)
6 - 10... 1000 m	(min. custom range 100 m)
7 - 0.1... 10 h	(min. custom range 1 h)
8 - 1... 100 h	(min. custom range 10 h)
9 - 10...1000 h	(min. custom range 100 h)

Standard Functions

- Alternating Relay
- Delay on Make
- Delay on Make (Coarse/Fine Adjust)
- Accumulative Delay on Make
- Delay on Break
- Delay on Break (Coarse/Fine Adjust)
- Flip - Flop (Leading Edge Triggered)
- Inverted Delay on Break
- Delay on Break/Recycle (ON First, Equal)
- Interval
- Interval (Coarse/Fine Adjust)
- Recycle (ON First, Equal Times)
- Recycle (ON First, Equal Times)(Coarse/Fine Adjust)
- Recycle (OFF First, Equal Times)
- Recycle (OFF First, Equal Times)(Coarse/Fine Adjust)
- Recycle (Both Times Adj. ON First)
- Recycle (Both Times Adj. OFF First)
- Single Shot
- Single Shot (Coarse/Fine Adjust)
- Trailing Edge Single Shot
- Trailing Edge Single Shot (Coarse/Fine Adjust)
- Inverted Single Shot
- Retriggerable Single Shot
- Single Shot/Recycle (ON First, Equal)

Connection



ERPO
Series

X	Input
1	12 V DC
2	24 V AC/DC
4	120 V AC
5	110 V DC
9	120/230 V AC

C - XXXX
Function Number
4 Digit Number
Assigned by the
Technical Support Team

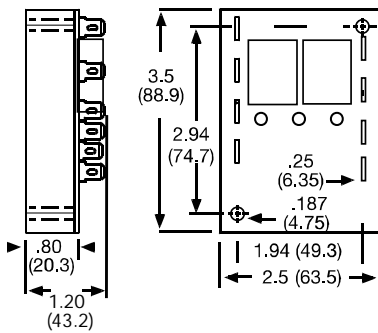
Example P/N: **ERPQ4C-4392, ERPQ1C-4350, ERPQ9C-4397**

ERPO Series Dual ProgramaCube® Dual Relay Output Module

Technical Data

Time Delay Type Range Repeat Accuracy Tolerance (Factory Calibration) Recycle Time Initiate Time Time Delay vs Temperature & Input Voltage	Microcontroller circuitry 0.1 s ... 1000 h in 9 adjustable ranges or fixed +/-1% or 16 ms @ 60 Hz, 20 ms @ 50 Hz whichever is greater ≤ +/-2% Or 20 ms whichever is greater ≤ 250 ms ≅ 40 ms ≤ +/-2%
Input Voltage Tolerance AC Line Frequency Power Consumption	12,24, or 110 V DC; 24, 120, or 120-230 V AC -15%... +20% -20%...+10% 50 ... 60 Hz 12 V DC - ≤ 1.5 W, 24 V AC/DC - ≤ 1.5 VA 110 V DC - ≤ 2.5 W, 120/230 V AC - ≤ 2.5 VA
Output Type Form Rating (at 40°C) [each relay] Maximum Switching Voltage Life	Two SPDT isolated relays Single pole double throw, SPDT 10 A res. at 125 V AC; 5 A res. at 230 V AC 5 A resistive at 30 V DC, ¼ hp at 125 V AC 250 V AC Mechanical - 1 x 10 ⁶ operations Electrical - 1 x 10 ⁵ operations at rated load
Protection Circuitry Isolation Voltage Insulation Resistance Polarity	Encapsulated ≥ 1500 V RMS input to output ≥ 100 MΩ DC units are reverse polarity protected
Mechanical Mounting Package Termination	Surface mount with two #6 (M3.5 x 0.6) screws 2.5 x 3.5 x 1.22 in. (63.5 x 88.9 x 31 mm) 0.25 in. (6.35 mm) male quick connect terminals
Environmental Operating/Storage Temperature Humidity Weight	-40°C ... +60°C / -40°C ... +85°C 95% relative, non-condensing @ 6.4 oz (181 g)

Mechanical View



ERPO01OP 09/24/03

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