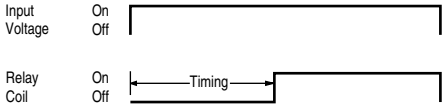
Time Delay Relays

Multi-Range Delay On Make
A1M Series

The A1M Series is a Delay On Make time delay relay featuring easy to program multiple time ranges and digital time selection with extremely high accuracy and repeatability.
Programming is accomplished using a 5 position rotary switch to select one of five time ranges.
A 3-digit pushbutton switch selects the amount of time delay required.

Operating Logic: Upon application of voltage to the input terminals, the time delay is initiated. At the end of the preset time delay, the relay coil is energized and the contacts transfer. Reset is accomplished by the removal of input voltage.

Logic Function Diagram:



Specifications

Time Delay
Adjustment: 3-digit pushbutton switch
Range: 50 mS to 999 minutes in 5 ranges
Repeatability: ± 0.1%, ± .02 seconds over specified timing range
Accuracy: ± 1% of set time, plus fixed error of 80 mS max. (40 mS typical including power on response time)

Input
Operating Voltage: 24, 120, 240 VAC, 12, 24 VDC ± 10% (D.C. models have reverse polarity protection. Unfiltered input voltage to them must be full-wave rectified)
Power On Response: .05 sec. max.
Power Off Reset Time: .15 sec. min.
Power Consumption: 2 VA maximum
Frequency: 50/60 Hz

Output
Type: Relay Contacts, D.P.D.T. (2 form C)
Silver Cad. Oxide material
Rating: 10 amp. max. resistive at 240 volts A.C.
100 mA at 5 VDC min. load current
Life: Mechanical - 10,000,000 operations
Full Load - 500,000 operations
Timing Light Logic: Flashing during timing; continuously on after time out

Protection
Transient Voltage: 12, 24 volt timers are protected by an 8.8 joule metal oxide varistor; 120, 240 volt timers are protected by a 30 joule metal oxide varistor.
Dielectric Breakdown: 1500 VAC RMS minimum at 60 Hz between input and outputs and between outputs

Mechanical
Termination: 8 - pin plug
Mounting:
Socket Mount Part No. MSO-0008P-012

Environmental
Storage Temperature: -23°C to 70°C
Operating Temperature: -23°C to 55°C
Humidity: 95% relative

Timing
Selectable Time Ranges:
.05 to 9.99 seconds
.1 to 99.9 seconds
1 to 999 seconds
.1 to 99.9 minutes
1 to 999 minutes
(Times less than 50 mS are not recommended due to the response time of the mechanical relay)
Programming:
To program the timer, remove power from the unit and select the time range, use the digital switches to select the required time (0-999)

Ordering Information

Input Voltage and Appropriate Part Numbers					
Time Range	12VDC	24VDC	24VAC	120VAC	240VAC
.05 Sec. to 999 Min.	A1M-0999M-466	A1M-0999M-462	A1M-0999M-467	A1M-0999M-461	A1M-0999M-465

AMETEK NCC
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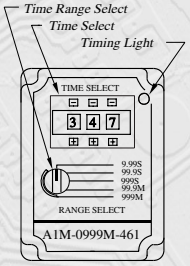
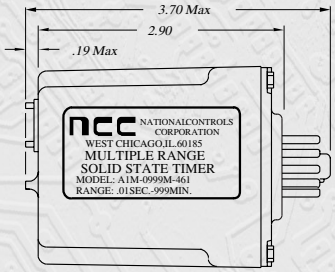
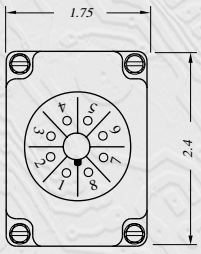
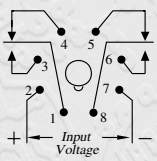
www.nationalcontrols.com

Features
- File #E59090
- 100% Life Tested
- Microprocessor Controlled Timing Circuit
- Five Time Ranges, User Selectable
- Easy 3-Digit Time Cycle Setting
- ±0.1% Repeatability
- Time Cycles From 50 mS To Over 16 Hours
- Timing Light
- Superior Transient Protection
- Reinforced Base Locator Pin
- Flame-Retardant Polycarbonate Housing
- Made in U.S.A.









PIN CONFIGURATION
Polarity Shown is for D.C. Models