NASSAR® ELECTRONICS

SINCE 1973

User Manual

ALTERNATING RELAY MODEL AS34





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Description

Alternating Relay AS34 is used in special applications where the optimization of load usage is required by equalizing the run time of 3 or 4 loads. A control switch initiates this alternating action. A control switch can be: a float, manual, or pressure switch, a timing relay, or any other isolated contact. Each time the initiating switch is closed, the output relay contacts will change state, thus alternating the 3-4 loads. LED indicators show the status of each output relay and supply voltage.

The AS34 relay can also be used where additional capacity is required in case of excess load requirements. Not only will it alternate between 3 or 4 loads, but it also allows up to 4 loads to run simultaneously when the lead and lag switches are closed, thus providing a way for all loads to operate when running just one does not provide enough capacity.This version is available with a selector switch that allows the unit to omit the relay of one load. The load can then be removed for service without rewiring, allowing continuous operation.

Control switch inputs are low voltage/ low current and are elecrically isolated from the input voltage and output contacts. The dual input voltage 120/220 VAC and the 10A output relays are also isolated between them.

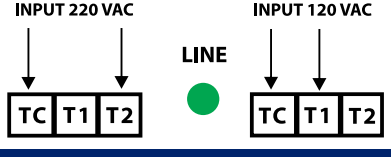
Supply voltage

DANGER!

**Potentially hazardous voltages are present. Electrical shock can cause death or serious injury.
Installation should be done by qualified personnel following all National, State & Local Codes.**

**BE SURE TO REMOVE ALL POWER SUPPLYING THIS EQUIPMENT BEFORE CONNECTING OR DISCONNECTING THE WIRING.
READ THE INSTRUCTIONS BEFORE INSTALLING OR OPERATING THIS DEVICE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.**

Connect the supply voltage on terminals TC and T1 for 120 VAC, or TC and T2 for 220VAC. The LINE green LED indicates the presence of supply voltage.

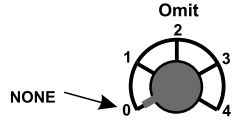


Features

- **Choose operation between 3 or 4 loads.**
- **Allows to omit a load for servicing.**
- **Input and Output contacts are Isolated, intrisically safe.**
- **10A output contacts**
- **LEDs indicate operation and supply voltage .**
- **Dual Voltage 120/220 VAC.**

Omit load for service

If you want to shut down any load provisionally due to maintenance, repair, etc use the selector to omit any load from operation.
For example, if you place the selector knob on OMIT 2, load 2 will not run and the next load will run instead. This rule applies for all positions.
To allow all the pumps to run, the selector knob position must be set to "0" (NONE).



Select 3 or 4 loads

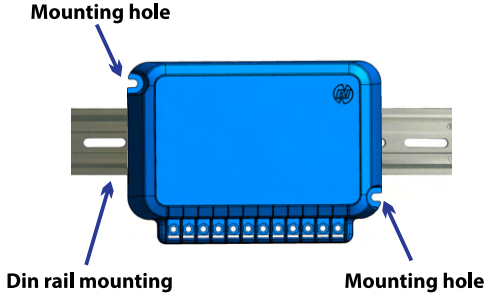
A selector switch allows to choose operation between 3 or 4 loads.



Mounting options & Dimensions

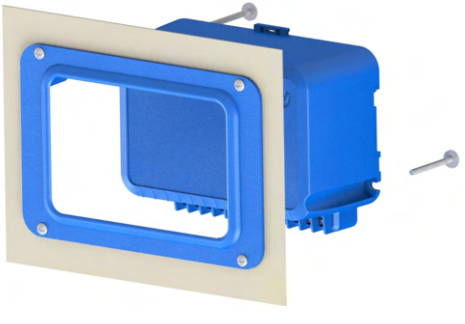
This unit can be mounted on a standard 35 mm DIN rail or screwed into a surface using the screws included in the package.

Enclousure Dimensions: 5.7 x 4.1 x 2.4 in



Panel mounting

Panel mounting for this equipment is available using the adapter plate model **PMF-237** (sold separately). Mounting on a panel door allows to visualize the LED indicators , it also makes setup adjustments easier. If this unit is panel mounted, the panel needs to be installed **indoors.**



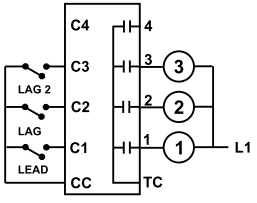


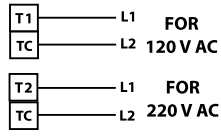
Operation for 3 loads

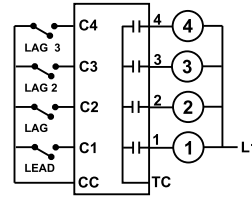
If all three switches are open, then all loads are off. When the LEAD Switch closes, it energizes Load 1. As long as the LEAD Switch remains closed, Load 1 remains energized. If the LAG Switch closes, Load 2 is energized. If the LAG 2 Switch closes, it energizes Load 3. All loads are turned off only after all switches (including the LEAD Switch) are opened again. When the cycle is then repeated it alternates the loads, in this example Load 2 would be energized first followed by Load 3 and then Load 1.

Operation for 4 loads

If all four switches are open, then all loads are off. When the LEAD Switch closes, it energizes Load 1. As long as the LEAD Switch remains closed, Load 1 remains energized. If the LAG Switch closes, Load 2 is energized. If the LAG 2 Switch closes, it energizes Load 3. Finally, if the LAG 3 Switch closes, it energizes Load 4. All loads are turned off only after all switches (including the LEAD Switch) are opened again. When the cycle is then repeated it alternates the loads, in this example Load 2 would be energized first followed by Load 3 then Load 4 and finally Load 1.







DO NOT APPLY VOLTAGE BETWEEN TERMINALS CC, C1, C2, C3 AND C4 SINCE THE ALTERNATING RELAY CAN BE DAMAGED

Specifications

VOLTAGE ON TERMINALS **CC, C1, C2, C3 ,C4**	24 V.D.C. max. 1 mA
INSOLATION	2500 V Input to Output
INPUT SUPPLY VOLTAGE	120 / 220 V.A.C. ± 10 % , 50/60 Hz
POWER REQUIRED	3 Watts
CONTACT RATING	10 Amp. Max. @ 220 V.A.C. Resistive load
LIFE	Mechanical - 1 x 10^7 Electrical - 1 x 10^6
STORAGE TEMPERATURE	-4 to + 158 °F (-20 to + 70 °C)
OPERATION TEMPERATURE	14 to + 122 °F (-10 to + 50 °C)
WEIGHT	17 Oz. (500 g)
LED INDICATORS	4 operation indicators, one for each load

*Specifications subject to change without notice.

WARRANTY

These products are warranted to be free from defects in workmanship or material under normal service and use for a period of one (1) year from date of manufacture. Nassar Electronics shall, at its option, repair or replace F.O.B. point of manufacture the portion of the product found by Nassar Electronics to be defective. All replacements or repairs necessitated by inadequate maintenance, normal wear and usage, unsuitable power sources or environmental conditions, accident, misuse, improper installation, modification, repair, use of unauthorized replacement parts, storage or handling, or any other cause not the fault of Nassar Electronics are not covered by this limited warranty, and shall be at the buyer's expense. All costs of dismantling, reinstallation and freight, and the time and expenses shall be borne by the buyer.

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