INSTALLATION INSTRUCTIONS
AE1 SERIES
Alternating Relays

December 2024 **901-0000-366**

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.

Présence de tensions potentiellement dangereuses. Une décharge électrique peut causer la mort ou des blessures graves.
L'installation devrait être effectuée par du personnel qualité suivant tous les codes nationaux, provinciaux et locaux.

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

Installation and Wiring:

- Mount the AE1 Series product on 35mm DIN Rial. Hook the fixed (upper) DIN clip over the top edge of the DIN rail and rotate the product downward applying pressure snap the lower DIN clip over the rail edge, securing the product to the rail.
- AE1 Series products can be mounted immediately next to other DIN rail devices or independently, separated from nearby DIN rail devices as desired. If mounting immediately next to other devices, please review the Installation Considerations.
- Wire the product as appropriate for your installation, using the wiring diagram on the side of the product and the application diagram below. Use 14-22AWG solid or stranded copper wire with a terminal tightening torque of 4 in-lbs.

Installation Considerations:

When installing AE1 Series products immediately next to other DIN rail devices, heat from the surrounding devices should be considered. Derating and/or spacing may be needed. Although each installation is unique, manufacturer recommendations and derating tables are provided below for guidance.

Suggested Derating Factor for Contact Ratings

Surrounding Air Temperature	25C	40C	50C	55C	60C	65C
0MM Spacing	None	0.8	0.3	-	-	-
5MM Spacing	None	None	None	None	0.5	0.3
10MM Spacing	None	None	None	None	None	None

Notes:

1. *Spacing is the distance between the AE1 series product and the next closest DIN rail devices on the same DIN rail.*
2. *The surrounding air temperature is the highest air temperature immediately surrounding the device.*
3. *These spacing and derating factors were developed under worst case scenarios (maximum voltage, current temperature simultaneously) and may not be required in all applications. The product is not recommended for operation under the conditions marked with "-".*

Setting the function switch ("R" suffix only):

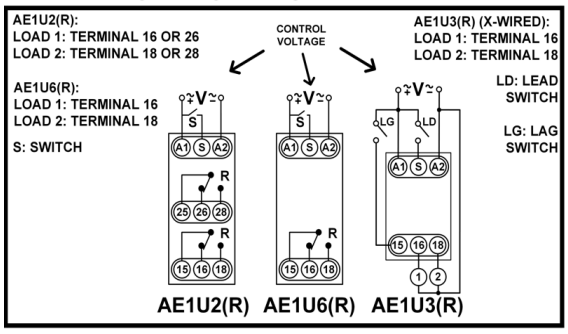
- Skip this step if your AE1 series product part number does not have an "R" suffix. AE1 Series products with "R" suffix have a blue selector dial on the front face. Rotate the dial's pointer to the desired function setting. Set the dial to "ALTERNATE" (dial to the center position) for normal operation, alternating between the two loads on each subsequent opening of the control switch. Set the selector switch to either "LOCK 1" (dial turn all the way left) or "LOCK 2" (dial turned all the way right) to lock that LOAD as next to be energized when the control switch (S or LEAD) closes. No alternation occurs when function is set to LOCK 1 or LOCK 2.

Troubleshooting:

- If the unit fails to operate as expected, check that all connections are correct per the connection diagram on the product. For DC Input Voltages, make sure the polarity matches the connection diagram, with positive voltage connected to terminal A1. If problems continue, visit our website at www.macromatic.com/contact to request support.

Typical Applications:

WIRING DIAGRAMS



Specifications:

OUTPUT CHARACTERISTICS	
Number and type of contacts	SPDT or DPDT
Contact materials	AgSnO2In
Contact ratings	10A @250VAC, 8A @ 30VDC

INPUT CHARACTERISTICS	
Control Voltage range	24-240VAC 50/60Hz, 12-240VDC
Operating range(% of nominal)	85% to 110%
Maximum Consumption	5VA (AC) and 1W(DC)

TIMING CHARACTERISTICS	
Reset Time	Input Voltage: 0.1 Seconds Triggered functions only: 0.04 Seconds
Start-up Time	Time from when power is applied until unit is timing: 0.05 Seconds
Maintain Function Time	Time unit continues to operate after power is removed: 0.01 Seconds
Trigger Switch Closure Time	Minimum required trigger switch closure time: 0.05 Seconds

Warranty

All catalog-listed products manufactured by Macromatic are warranted to be free from defects in workmanship or material under normal service and use for a period of Five (5) years from the date of manufacture.