

INSTALLATION INSTRUCTIONS CAP SERIES CHERENT SENSING RELAYS

December 2020, Rev A 901-0000-330

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.



Présence de tensions potentiellement dangereuses. Une décharge électrique peut causer la mort ou des blessures graves.

L'installation devrait être effectuée par du personnel qualifié 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.

S'ASSURER DE SUPPRIMER TOUTE ALIMENTATION ÉLECTRIQUE DE CET ÉQUIPEMENT AVANT DE BRANCHER OU DE DÉBRANCHER LES CÂBLAGES.

Installation & Wiring

Mount the appropriate 11 pin octal socket (such as the Macromatic 70170-D or Custom Connector OT11-PC) in a suitable enclosure. When making connections to the socket, make sure to match the terminal numbers on the socket to the ones shown on the wiring diagram (the wiring diagram on the relay is the view looking towards the bottom of the relay vs. the top of the socket). Use one or two #12-22 solid or stranded copper or copper-clad aluminum conductors with terminals on Macromatic or Custom Connector sockets - a terminal tightening torque of 12 in-lbs should be used. See Product Setup on reverse side.

CAP Series relays have three built-in current ranges (see below) to monitor both AC & DC current. Each one is easily selectable by connecting to the corresponding terminal and also to the COM terminal (see Wiring Diagram below). For example, to select a range of 0.05 – 1A DC, connect the monitored current wires to Pins 6 & 8:

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DC	AC	Pin #	Wiring
5 – 100mA	3.5 – 70.7mA	5	5-100mA DC+ 0.05-1A DC+
0.05 – 1A	0.035 – 0.707A	6	45 6 7 80 COM- 3 9 100 S2
0.5 – 10A	0.35 – 7.07A	7	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

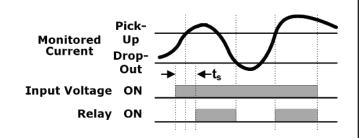
Troubleshooting

If the unit fails to operate properly, check that all connections are correct per the appropriate wiring diagram on the product. If problems continue, contact Macromatic at 800-238-7474 or e-mail tech-support@macromatic.com for assistance.

Operation Function Chart

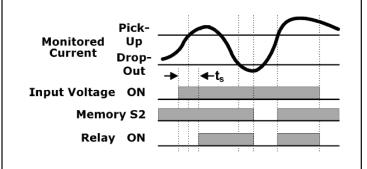
Non-Latching:

The unit will operate in the non-latching mode if no circuit is completed across pins 9 & 11. After input voltage is applied (LED is Green) & the sensing delay (ts) of 0.1 – 10 seconds is completed, the relay will energize when the monitored current is above the adjustable pick-up setting and the LED will be Red. It will de-energize when the monitored AC current is below the adjustable drop-out setting (50-95% of the selected pick-up setting) or when input power is removed. The LED will be Green.



Latching:

The unit will operate in the latching mode if a N.C. contact (Memory S2) is connected across pins 9 & 11 (see Wiring Diagram). After input voltage is applied (LED is Green) & the sensing delay on power-up (ts) of 0.1 - 10 seconds is completed, the relay will energize when the monitored current is above the adjustable pick-up setting and the LED will be Red. It will de-energize only when the monitored AC current is below the dropout setting and the N.C. contact (Memory S2) is opened or when input voltage is removed. The LED will be Green. It is recommended to set the hysteresis at 5% when in the latching mode.



Warranty

All catalog-listed CAP Series Relays 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 date of manufacture.

Macromatic Industrial Controls, Inc. • 2201 Corporate Drive • Waukesha, WI 53189 For product information and technical support go to www.macromatic.com/contact