

# CURRENT MONITOR RELAYS

## CO Series Over current AC PI ug-in



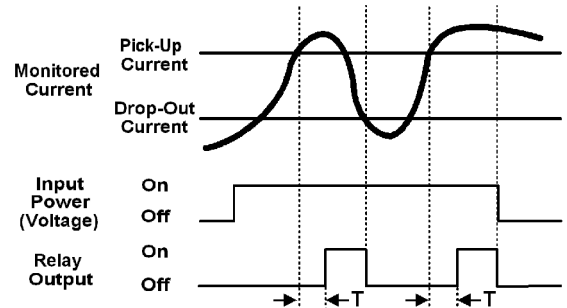
- u Monitors AC single phase currents for overcurrent conditions
- u Three separate current monitoring ranges covering 0.1 - 10 amperes
- u External CT can be used to extend ranges
- u Adjustable Pick-up Setting with either Fixed or Adjustable Drop-out Setting
- u Adjustable time delay of 0.1-10 seconds on pick-up
- u LED indicates output relay status
- u Choice of compact 8 Pin SPDT or 11 Pin DPDT plug-in case

- u 10A output contacts



The CO Series is used to detect an overcurrent condition. The pick-up current setting is user-adjustable within one of three ranges as shown in the Product Selection Table below. An external current transformer can be used to extend the range beyond 10 amperes.

Choose between a fixed drop-out current setting at 95% of the selected pick-up setting or an adjustable drop-out setting of 50-95% of the selected pick-up setting. The relay will energize when the monitored AC current is above the pick-up setting for a period longer than the adjustable time delay of 0.1-10 seconds. This delay prevents nuisance tripping caused by inrush currents. It will de-energize when the monitored AC current is below the drop-out setting.



### 8 Pin SPDT Plug-in

Pick-up Setting	Drop-Out Setting	Input Voltage	Current Range Monitored	Product Number	Wiring/Socket
Adjustable (Across Monitored Range)	Fixed (At 95% of Pick-Up)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COP01A68 COP05A68 COP10A68	8 Pin <b>70169-D</b>  MONITORED CURRENT INPUT VOLTAGE  <b>Diagram 21</b>
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COP01A62 COP05A62 COP10A62	
Adjustable (Across Monitored Range)	Adjustable (From 50-95% of Pick-Up)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COKP01A68 COKP05A68 COKP10A68	8 Pin <b>70169-D</b>  MONITORED CURRENT INPUT VOLTAGE  <b>Diagram 21</b>
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COKP01A62 COKP05A62 COKP10A62	

### 11 Pin DPDT Plug-in

Pick-up Setting	Drop-Out Setting	Input Voltage	Current Range Monitored	Product Number	Wiring/Socket
Adjustable (Across Monitored Range)	Fixed (At 95% of Pick-Up)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COP01A28 COP05A28 COP10A28	11 Pin <b>70170-D</b>  MONITORED CURRENT  <b>Diagram 22</b>
		120VAC	0.1 - 1A 0.5 - 5A 1 - 10A	COP01A22 COP05A22 COP10A22	
Adjustable (Across Monitored Range)	Adjustable (From 50-95% of Pick-Up)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COKP01A28 COKP05A28 COKP10A28	11 Pin <b>70170-D</b>  MONITORED CURRENT  <b>Diagram 22</b>
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COKP01A22 COKP05A22 COKP10A22	



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# CURRENT MONITOR RELAYS

CO Series Overcurrent

AC Plug-in

Application Data & Dimensions

## Application Data

### Input Voltage Tolerance:

AC Operation: +10/-15% of nominal at 50/60 Hz.

### Load (Burden):

Less than 5VA

### Current Settings:

Pick-up: Adjustable throughout current range monitored

Drop-out: Fixed at 95% of pick-up setting (COP Series); or  
Adjustable from 50-95% of pick-up setting (COKP Series)

### Temperature:

-28° to 55° C (-20° to 131° F)

### Response Times:

Pick-up: Adjustable 0.1-10 seconds

Drop-out: Fixed 100ms

### Output Contacts:

10A @ 240V AC/30V DC, 1/2HP @ 120/240V AC (N.O.),  
1/3HP @ 120/240V AC (N.C.)

### Life:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

Indicator LED: Green when Input Voltage is applied;  
Red when Relay is energized

Reset: Automatic. Contact Macromatic for information on a product with a latching function--the relay remains energized even after the current drops below the drop-out setting until a remote N.C. button is opened.

### Mounting:

Requires an 8 or 11 pin octal socket--see page 81.

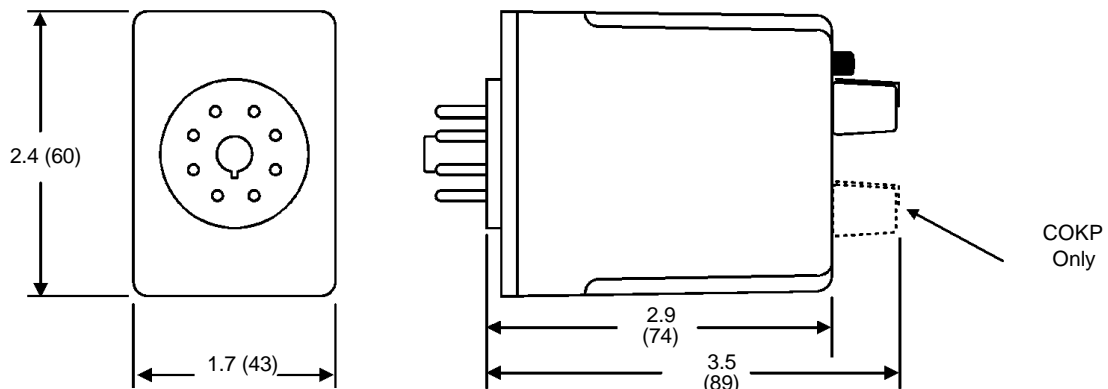
### Approvals:



Low Voltage & EMC Directives  
EN60947-1, EN60947-5-1

with  
appropriate  
socket  
File #E109466

## Dimensions



All dimensions are inches  
(millimeters)