

# CURRENT MONITOR RELAYS

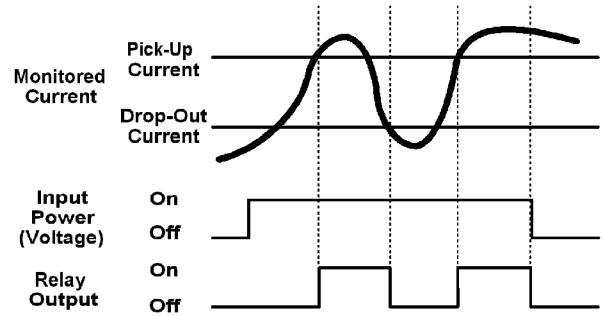
## CM Series Standard AC PI ug-in



- u Monitors AC single phase currents
- 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 LED indicates output relay status
- u Choice of compact 8 Pin SPDT or 11 Pin DPDT plug-in case
- u 10A output contacts

The CM Series is used to detect either an overcurrent or undercurrent 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, and will de-energize when the monitored AC current is below the drop-out setting. The time delay on both pick-up and drop-out is fixed at 100ms (for products with adjustable time delay on pick-up, see page 22; for adjustable time delay on drop-out, see page 24).



### SPDT 8 Pin 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	CMP01A68 CMP05A68 CMP10A68	<p><b>Diagram 21</b></p>
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMP01A62 CMP05A62 CMP10A62	
Adjustable (Across Monitored Range)	Adjustable (From 50-95% of Pick-Up)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMKP01A68 CMKP05A68 CMKP10A68	
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMKP01A62 CMKP05A62 CMKP10A62	

### DPDT 11 Pin 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	CMP01A28 CMP05A28 CMP10A28	<p><b>Diagram 22</b></p>
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMP01A22 CMP05A22 CMP10A22	
Adjustable (Across Monitored Range)	Adjustable (From 50-95% of Pick-Up)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMKP01A28 CMKP05A28 CMKP10A28	
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMKP01A22 CMKP05A22 CMKP10A22	



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Sockets & Accessories—Pages 81 & 82

Application Data & Dimensions—Page 21

# CURRENT MONITOR RELAYS

CM Series Standard

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 (CMP Series); or  
Adjustable from 50-95% of pick-up setting (CMKP Series)

### Temperature:

-28° to 55° C (-20° to 131° F)

### Response Times:

Pick-up: 100ms

Drop-out: 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:

**UL** US  
File #E109466

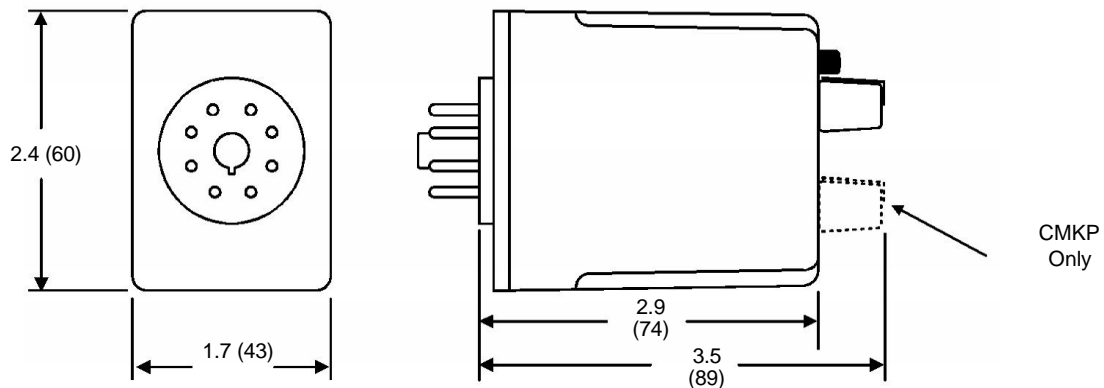
**UL** LISTED  
IND. CONT. EQUIP.  
5017

with  
appropriate  
socket  
File #E109466

**CE**

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

## Dimensions



All dimensions are inches  
(millimeters)