

# AC STANDARD CM SERIES



- ◆ Monitors AC currents
- ◆ Three separate current monitoring ranges covering 0.1 - 10 amperes
- ◆ External CT can be used to extend ranges
- ◆ Adjustable Pick-up Setting with either Fixed or Adjustable Drop-out Setting
- ◆ LED indicates output relay status
- ◆ Choice of compact 8 Pin SPDT or 11 Pin DPDT plug-in case
- ◆ 10A output contacts



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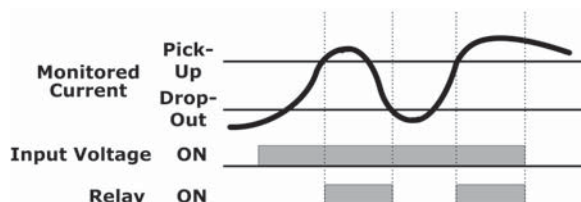
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The CM Series is used to detect either an overcurrent or undercurrent condition. The pick-up current setting is user-adjustable within one of three ranges as shown in the Product Selection Table below. An external current transformer can be used to 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.



### SPDT 8 Pin Plug-in

| Pick-up Setting                        | Drop-Out Setting                       | Input Voltage | Current Range Monitored         | Product Number                      | Wiring/Socket            |
|--|--|---------------|---------------------------------|-------------------------------------|--------------------------|
| Adjustable<br>(Across Monitored Range) | Fixed<br>(At 95% of Pick-Up)           | 24V AC        | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMP01A68<br>CMP05A68<br>CMP10A68    | <p><b>DIAGRAM 21</b></p> |
|  |  | 120V AC       | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMP01A62<br>CMP05A62<br>CMP10A62    |                          |
| Adjustable<br>(Across Monitored Range) | Adjustable<br>(From 50-95% of Pick-Up) | 24V AC        | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMKP01A68<br>CMKP05A68<br>CMKP10A68 |                          |
|  |  | 120V AC       | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMKP01A62<br>CMKP05A62<br>CMKP10A62 |                          |

### DPDT 11 Pin Plug-in

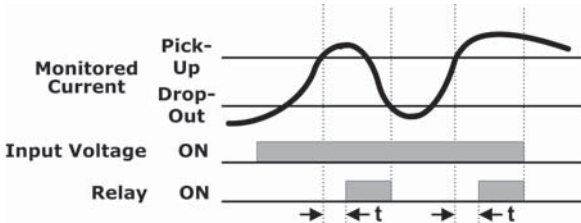
| Pick-up Setting                        | Drop-Out Setting                       | Input Voltage | Current Range Monitored         | Product Number                      | Wiring/Socket            |
|--|--|---------------|---------------------------------|-------------------------------------|--------------------------|
| Adjustable<br>(Across Monitored Range) | Fixed<br>(At 95% of Pick-Up)           | 24V AC        | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMP01A28<br>CMP05A28<br>CMP10A28    | <p><b>DIAGRAM 22</b></p> |
|  |  | 120V AC       | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMP01A22<br>CMP05A22<br>CMP10A22    |                          |
| Adjustable<br>(Across Monitored Range) | Adjustable<br>(From 50-95% of Pick-Up) | 24V AC        | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMKP01A28<br>CMKP05A28<br>CMKP10A28 |                          |
|  |  | 120V AC       | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CMKP01A22<br>CMKP05A22<br>CMKP10A22 |                          |

Sockets & Accessories available

# AC OVERCURRENT CO SERIES

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 (t) 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.



### SPDT 8 Pin Plug-in

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

### DPDT 11 Pin Plug-in

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

Sockets & Accessories available



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



(with appropriate socket)



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# AC UNDERCURRENT CU SERIES



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



(with appropriate socket)

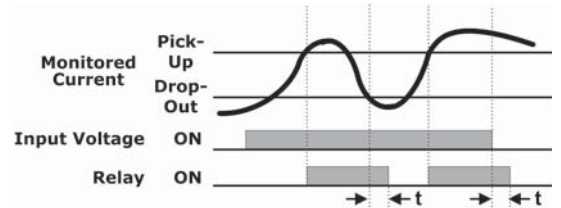


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The CU Series is used to detect an undercurrent condition. The drop-out current setting is user-adjustable within one of three ranges as shown in the Product Selection Table below. An external current transformer can be used to extend the range beyond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

The pick-up current setting is fixed at +5% of the selected drop-out setting. The relay will energize when the monitored AC current is above the pick-up setting. It will de-energize when the monitored AC current is below the drop-out setting for a period longer than the adjustable time delay (t) of 0.1-10 seconds. This delay prevents nuisance tripping caused by momentary line dips. The relay will energize when the current rises 5% above the drop-out setting.



### SPDT 8 Pin Plug-in

| Pick-up Setting               | Drop-Out Setting                       | Input Voltage | Current Range Monitored         | Product Number                   | Wiring/Socket                                    |
|-------------------------------|--|---------------|---------------------------------|----------------------------------|--|
| Fixed<br>(At +5% of Drop-Out) | Adjustable<br>(Across Monitored Range) | 24V AC        | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CUP01A68<br>CUP05A68<br>CUP10A68 | 8 Pin<br><b>70169-D</b><br><br><b>DIAGRAM 21</b> |
|                               |  | 120V AC       | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CUP01A62<br>CUP05A62<br>CUP10A62 |  |

### DPDT 11 Pin Plug-in

| Pick-up Setting               | Drop-Out Setting                       | Input Voltage | Current Range Monitored         | Product Number                   | Wiring/Socket                                     |
|-------------------------------|--|---------------|---------------------------------|----------------------------------|---|
| Fixed<br>(At +5% of Drop-Out) | Adjustable<br>(Across Monitored Range) | 24V AC        | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CUP01A28<br>CUP05A28<br>CUP10A28 | 11 Pin<br><b>70170-D</b><br><br><b>DIAGRAM 22</b> |
|                               |  | 120V AC       | 0.1 - 1A<br>0.5 - 5A<br>1 - 10A | CUP01A22<br>CUP05A22<br>CUP10A22 |   |

Sockets & Accessories available

# AC STANDARD, AC OVERCURRENT & AC UNDERCURRENT CM, CO & CU SERIES

## APPLICATION DATA

### Input Voltage Tolerance:

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

### Load (Burden):

Less than 5VA

### Current Settings:

CM & CO Series

Pick-up: Adjustable throughout current range monitored

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

CU Series

Pick-up: Fixed at 5% above adjustable drop-out setting

Drop-out: Adjustable throughout current range monitored

### Response Times:

CM Series

Pick-up: Fixed 100ms

Drop-out: Fixed 100ms

CO Series

Pick-up: Adjustable 0.1-10 seconds

Drop-out: Fixed 100ms

CU Series

Pick-up: Fixed 100ms

Drop-out: Adjustable 0.1-10 seconds

### 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

**Temperature:** Operating: -28° to 55°C (-18° to 131° F)

Storage: -40° to 85°C (-40° to 185°F)

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

**Reset:** Automatic

### Mounting:

Requires an 8 or 11 pin octal socket

### Approvals:

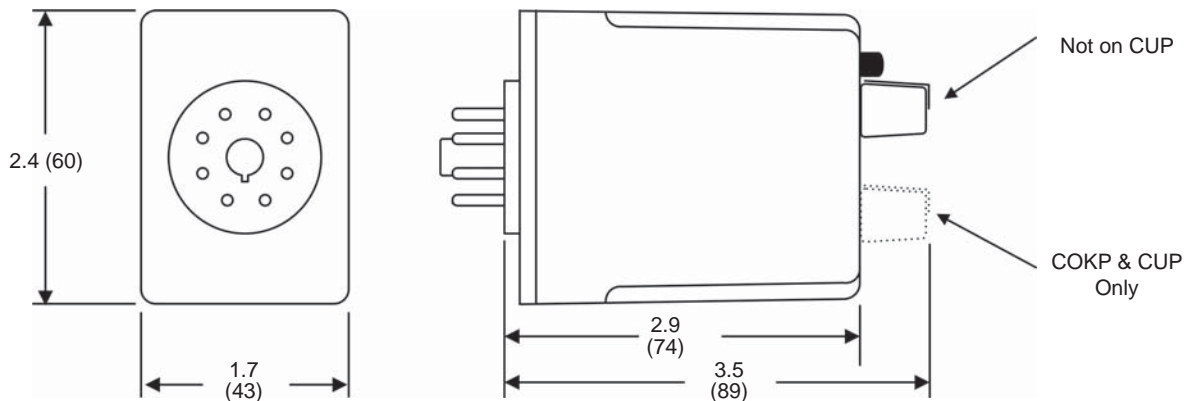


Low Voltage & EMC Directives  
EN60947-1, EN60947-5-1



with appropriate socket  
File #E109466

## DIMENSIONS



All dimensions are inches  
(millimeters)