AC STANDARD
CM Series

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.

◆ 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
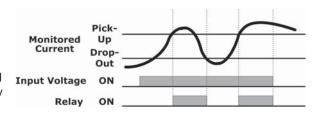
◆ 10A output contacts

(with appropriate socket)

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SPDT 8 Pin Plug-in

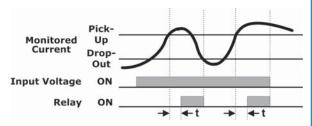| Pick-up Setting	Drop-Out Setting	Input Voltage	Current Range Monitored	Product Number	Wiring/ Socket
Adjustable (Across Monitored Range)	Fixed (At 95% of Pick-Up)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMP01A68 CMP05A68 CMP10A68	8 Pin **70169-D**
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CMP01A62 CMP05A62 CMP10A62	
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	**DIAGRAM 21**

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	11 Pin **70170D**
		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	**DIAGRAM 22**

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.

◆ 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)

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	COP01A68 COP05A68 COP10A68	8 Pin **70169-D**
		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	
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COKP01A62 COKP05A62 COKP10A62	**DIAGRAM 21**

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	COP01A28 COP05A28 COP10A28	11 Pin **70170D**
		120V AC	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	
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	COKP01A22 COKP05A22 COKP10A22	**DIAGRAM 22**

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CURRENT SENSING RELAYS | PLUG-IN

5

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

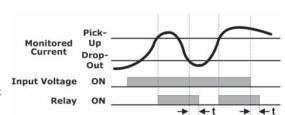◆ Choice of compact 8 Pin SPDT or 11 Pin DPDT plug-in case

◆ 10A output contacts

(with appropriate socket)

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 (At +5% of Drop-Out)	Adjustable (Across Monitored Range)	24V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CUP01A68 CUP05A68 CUP10A68	8 Pin **70169-D**
		120V AC	0.1 - 1A 0.5 - 5A 1 - 10A	CUP01A62 CUP05A62 CUP10A62	DIAGRAM 21

DPDT 11 Pin Plug-in

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

Sockets & Accessories available

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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: -28º to 55ºC (-18º to 131º F)
                        Storage: -40º to 85ºC (-40º to 185ºF)

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

Reset: Automatic
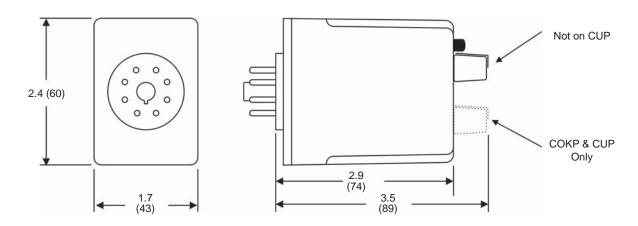
Mounting:
Requires an 8 or 11 pin octal socket

Approvals:

File #E109466

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

UL LISTED
IND. CONT. EQUIP.
50U7
with appropriate socket
File #E109466

Dimensions

2.4 (60)

1.7 (43)

Not on CUP

COKP & CUP Only

2.9 (74)

3.5 (89)

All dimensions are inches (millimeters)