

# DCM / DCM15

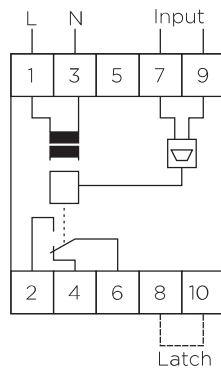
## Current Monitor



### Description

Current Monitor designed with the latest micro controller featuring high resolution analogue converter to produce precise switching levels. The unit can be ordered in a wide range of AC and DC currents making it ideal for all current monitoring applications. The latch facility prevents unmonitored fault conditions. Adjustments to the trip level, hysteresis and delay function can be made on the front mounted dials. Over and under monitoring can be selected via front slide switch.

### Wiring Diagram



### FEATURES

- High resolution analogue microprocessor
- Front face selectable Over / Under monitoring
- Front face adjustable current level
- Front face adjustable hysteresis 5-50%
- 4 Front face selectable delays
- Optional latch facility
- Modular 35.5mm DIN rail mountable
- 15A SPDT output relay
- LED indication for power supply ON

### Time Specifications

Input	Pin 7 & 9
Measuring Ranges	0 - 5 A / 0 - 15 A
Internal Resistance	0.1 ohm
Maximum	
Overload current	15 A ( 30 sec ) / 20 A (30sec)
Hysteresis	5 - 50 %
Repeat Accuracy	≤ 1 %
Latch	Pin 8 & 10

### Output Specifications

Output Specifications	SPDT
Rated Isolation	6000 VAC
Voltage	(contact / electric) 1000 VAC (contact / contact)
Nominal Rate in AC1	2500 VA ( Ag-Ni )
Rated Current	15A
Rated Voltage	250V
Mechanical Life	10x10 <sup>6</sup> cycles
Electrical Life	110x10 <sup>3</sup> cycles (at max load)
Operation Frequency	≤ 1800 cycles/h

### Supply Specifications

Power Supply AC Type	110, 230, 400V
(Galvanic)	525V ± 10%
	50 / 60 Hz ± 5Hz
Isolation	4kV
Consumption	± 3VA
	± 6VA 525 V
Power Supply DC Types	12,24,48 V ± 10%
(Non-galvanic)	
Isolation	None
Consumption	± 100 mA

### General Specifications

Power ON Delay	≤ 300 ms
Power OFF Delay	≤ 200 ms
Indication for	
Power Supply ON	LED green
Output ON	LED red
Environment	
Degree Of Protection	IP 20
Operating Temperature	-10 to + 50°C
Storage Temperature	-50 to + 85°C
Weight	200g

# DCM / DCM15

## Current Monitor Mode of Operations

### Over Current

The relay will release if the current exceeds the set limit. If the current reduces by the percentage hysteresis of the set value the relay will operate. Refer to the delay settings for operation delays.

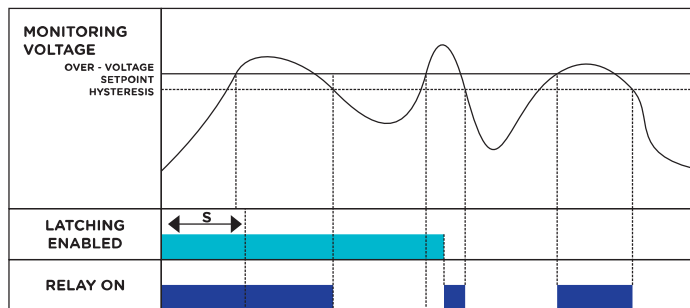
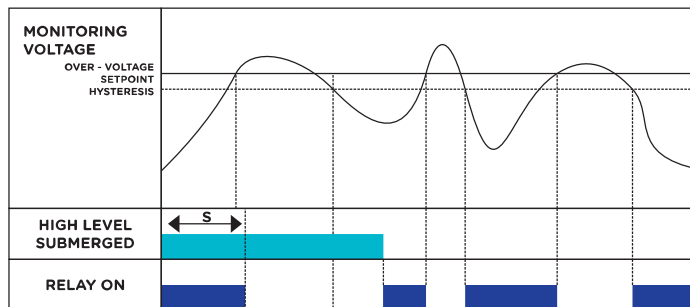
### Under Current

The relay will operate if the current exceeds the set limit. If the current reduces by the percentage hysteresis of the set value the relay will release. Refer to the delay settings for operation delays.

### Hysteresis

Hysteresis is the percentage difference between the trip point and the recovery point. If the unit is set to 4A over current 10% hysteresis, the relay will release at 4A and only re-energize when the current falls to 3.6A.

## Operations Diagram



## Delay Functions

### 1) No Delay

Measurement starts immediately and relay responds directly (normal acquisition delay apply)

### 2) 10s start up

Relay operates immediately and power LED flashes when power supply is applied. Measurement starts after 10 sec and power LED stops flashing.

### 3) 180s recovery delay

When power is applied relay does not operate and power LED flashes. After 180sec measurement starts and power LED stops flashing. If relay releases, time delay starts, power LED flashes and relay will only operate again after 180sec.

### 4) 10s response delay

Relay operates immediately and power LED flashes when power supply is applied. Measurement starts after 10 sec and power LED stops flashing. The relay will only release after a fault condition has been present for 10 sec.