

FMC-R2 & FMC-R4 Fan Monitoring Controller

OVERVIEW

The FMC-R2 and FMC-R4 are micro-controller based AC Fan monitoring Controllers with digital temperature indication and signal retransmission, offered in a highly compact, rugged and reliable execution. The instrument has three keys on the front panel, with which the operator can set the parameters and configure the instrument as desired.

The instrument has an in-built precision temperature sensor which monitors the ambient temperature and displays the same on a three-digit seven-segment digital display on the front panel. The display can indicate any scale range between 000 to 99.9 units (temperature) value in degree Celsius (°C). In case of power failure, the set points are retained in memory.

The Fan monitoring and Control modules are not designed for any specific make of Fans, and as such, the customer can use any Fan make of his choice. The rated current of the Fans need not be pre-specified by user, since the Fan Monitoring unit dynamically acquires this information while monitoring the Fans.

The Fan Control module provides powered output contacts for wiring the two AC Fans independently through internal control relays. The instrument also senses the normal healthy current being drawn by each fan and provides short-circuit and open-circuit protection by cutting off the supply to the corresponding Fan in case any abnormality is detected. Open Circuit and Short circuit conditions are monitored continuously and are digitally configurable.

The instrument has an internal SMPS power supply and operates on universal AC power of 90 to 270 V AC, 50/60 Hz.



SPECIFICATIONS

Type	Microcontroller based module for switching and monitoring of cooling fans, based on ambient temperature.
Model Number	FMC-R2 (two fans) FMC-R4 (four fans)
No of Fans	2 or 4.
Temperature Display	Three digit 0.4" inch seven-segment red LED displays.
Temp Range	00.0 to 99.9 degrees Celcius.
Keys	3 nos.
Input	Inbuilt electronic temperature sensor.
Control Outputs	Three built-in Relays >> Relay-1 : AC powered contacts for Fan 1. Relay-2 : AC powered contacts for Fan 2. Relay-3 : Alarm relay with potential free contacts.
Contact Rating	10 Ampere @ 230 VAC.
Indications	Two bicolor LEDs >> F1 : Red/Green LED for indication of Fan-1 status F2 : Red/Green LED for indication of Fan-2 status
Retransmission	4 to 20 mA DC analog current output prop to temperature.
Load capacity	600 Ohms.
Power Supply	90-270 V AC, 50/60 Hz.
Protections	Short-circuit and over-voltage protection.
Dimensions	FMC-R2 : 75 x 55 x 110 mm [HxWxD] FMC-R4 : 75 x 100 x 110 mm [HxWxD]
Enclosure	Polycarbonate.

FEATURES

- Monitoring of Fan faults in dynamic operation.
- Microcontroller based high speed precision design.
- Simple low cost configuration for Racks / Panels.
- Ambient Temperature monitoring and indication
- Three digit seven-segment display for temperature
- Auto Current monitoring.
- AC or DC version models for AC/DC Fan monitoring.
- Slim and Compact execution.
- LED indication of alarm conditions.
- Easy and quick installation in panel.
- Monitors Fans for failure
- Potential free Relay contacts for external dock/hooter connection.