

## FEATURES

- Excellent fan controls
- Settable hysteresis to cut OFF & ON
- NTC(10K) temperature sensor
- Settable temperature setting
- Runs on 40-60 VDC
- Non volatile memory for data retention
- Fan failure indication and alarm
- Temperature sensor failure indication
- Indication of wrong hysteresis & temperature setting
- Fan selection from 1 to 6 fans
- LED indications : Sensor Fail, Alarm ON, FAN ON, FAN fail (up to 6 fans), wrong hysteresis & temperature setting
- anel mounting

## SPECIFICATIONS

Model No.		FFR-48V06F
Input	System Supply	40 - 60 VDC
	Fan Status	Active low input on normal condition
	Temperature sensor	NTC 10K
Ouput	Potential free contact for Alarm	1 NO contact, 230VAC 5A
	Fan supply Voltage	40 - 60 VDC
LED Indications	Fan fail	Upto 6 fans
	Sensor fail	Sensor open or not connected
	Alarm	Fan fail (1 to 6)
	Wrong Temperature & Hysteresis setting	If more than one or no switch is ON
DIP switc Settings	Temperature	30°C, 35°C, 40°C, 45°C
	Hysteresis	2°C, 3°C, 4°C, 5°C
	Precision	NTC10K : ±5%
	Operating Temperature	-5°C to +50°C
	Dimensions L x W (mm)	98.5 x 95 mm
	Mounting	anel mounting

### Notes:

1. Specifications are subject to change without prior notice due to constant improvement in design & technology.

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## OPERATING MODES

- 1) FAN Selection Mode
- 2) Parameter Setting

### 1) Fan Selection Mode

- ▶ Keep all switches of TEM DI S/W and HYST DI S/W in ON position & turn ON the power.
- ▶ WTS & WHS LED's will blink to indicate calibration mode is activated.
- ▶ Select FANs for status to be monitored as per your requirement by keeping respective Switch in OFF position as per below table-

DI S/W	S/W	FAN SELECTION	SELECT <sup>N</sup> CRITERIA
TEM DI S/W	1	FAN 1	OFF
	2	FAN 2	OFF
	3	FAN 3	OFF
	4	FAN 4	OFF
HYST DI S/W	1	FAN 5	OFF
	2	FAN 6	OFF

- ▶ Store selected FANs by keeping HYST DI S/W 3 & 4 in OFF position.
- ▶ The moment you store selected Fans, it will go in operational mode and WTS and WHS LED will stop blinking. Refer parameter setting procedure to set Temperature and Hysteresis.

#### For Example:

If you want to select 3 no. of FANs (FAN 1, FAN 2, FAN 3), then keep TEM DI S/W 1 to 3 in OFF position. After that keep HYST. DI S/W 3 & 4 in OFF position to store selected FANs. Then Controller will check status of only selected fans i.e FAN 1, FAN 2 & FAN 3, other fan status input will be ignored.

## 2) Parameter Setting

- ▶ There are two DI switches for temperature & hysteresis setting.
- ▶ Temperature limit can be set from 30°C to 45°C by turning ON respective TEM DI S/W.

DIPPS/W	S/W	TEMP.PSELECTION
TEM DI S/W	1	30°C
	2	35°C
	3	40°C
	4	45°C

- ▶ You can set only one temp. at a time by selecting only one TEM DI S/W . If two or more than two Temp. DI switches are ON then WTS LED will glow to indicate temp. setting error.
- ▶ Hysteresis limit can be set from 2°C to 5°C by turning ON respective HYST DI S/W.

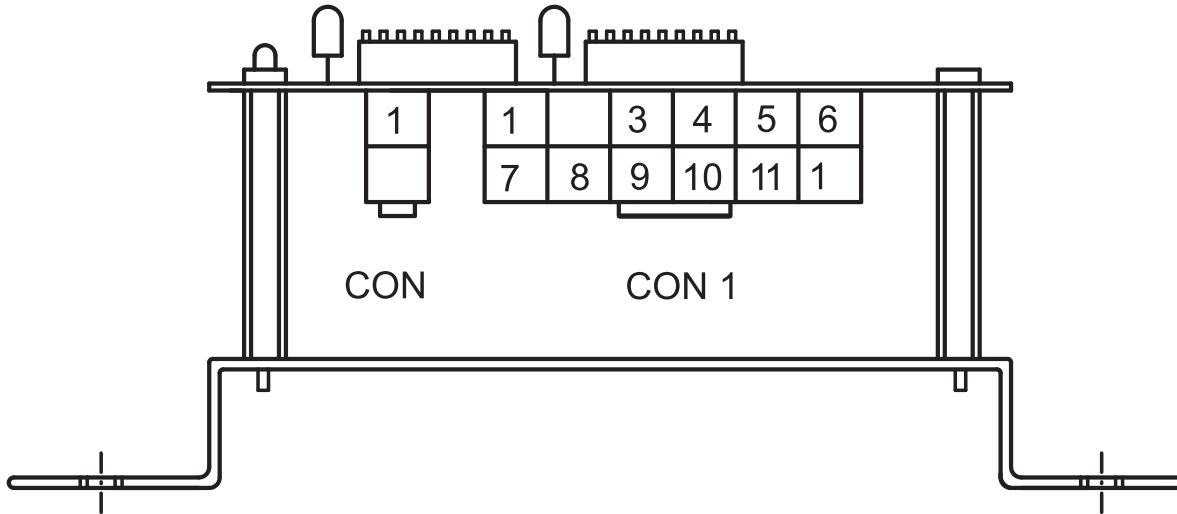
DIPPS/W	S/W	HYST.PSELECTION
HYST DI S/W	1	2°C
	2	3°C
	3	4°C
	4	5°C

- ▶ You can set only one Hyst. at a time by selecting only one HYST DI S/W . If two or more than two Hyst. DI switches are ON then WHS LED will glow to indicate Hyst. setting error.

### For Example :

If temperature is set to 35°C & hysteresis is 3°C, then fan will turn ON at 35°C & will turn OFF at (t-3)°C i.e 32°C

## Fan Fail Relay Connector Terminals



### CON 1

- Pin No. 1 :- Fan 4
- Pin No. 2 :- Fan 3
- Pin No. 3 :- Fan
- Pin No. 4 :- Fan 1
- Pin No. 5 :- +48 V
- Pin No. 6 :- GND
- Pin No. 7 :- Fan 5
- Pin No. 8 :- Alarm Comman
- Pin No. 9 :- Alarm NO
- Pin No. 10 :- Fan 6
- Pin No. 11 :- Fan out 48V
- Pin No. 1 :- Fan out GND

### CON 2

- Pin No. 1 :- Sensor Input
- Pin No. 2 :- Sensor Input