

PRODUCT SPECIFICATION

68.01 Series Fan Failure Detection (FFD)



Features

- Measures ambient temperature.
- Seven Segment displays to indicate ambient temperature.
- Two Relays :
 - One Relays to indicate Fan Failure.
 - One Relay to indicate Over Temperature condition.
- Measures FAN parameters in RUN/STALL condition.
- Programmable FAN voltage of 230V / 110V.
- Facility to characterize individual fan motors.
- Saves power and heating of Fan motors.



Specifications

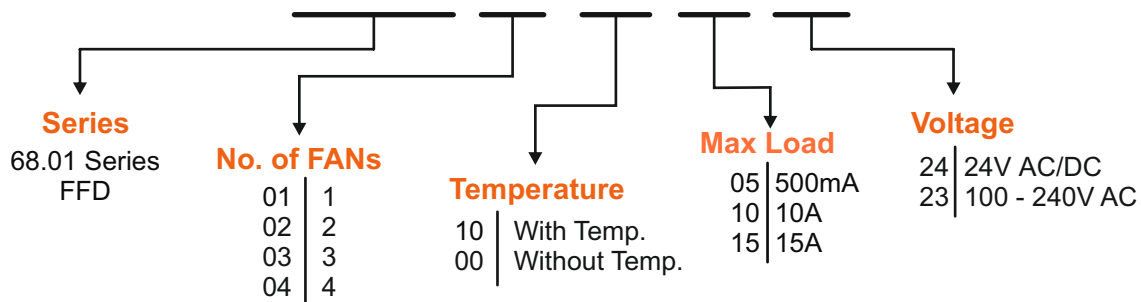
S.No.	Parameter	Description	Remarks
Hardware Interfaces			
2	Power Inputs	AC 110V-230V	
3	Auxiliary Power Output	AC 110V-230V	
4	Display	7 segment display 4 bit	
5	Switches	Switch1: SET for setting Threshold current	
		Switch2: ENTER/RUN for Start the System after Threshold setting	
		Switch3: RESET for resetting current threshold setting	
6	Relays	Relay1: FAN fault relay	One Fan maximum Current is 230V/500mA, This Relay will trigger when either of the FANs Faulty
		Relay2: Temperature high Relay	Over temperature detect, This relay will trigger when temperature cross Threshold
7	LEDs	FAN Fault LED/Temperature Failure (Dual Colour Red & Green)	RED Colour Indicates Fault in either of the Fans or Over temperature Green Colour Indicates Normal Operation
		AC POWER LED (Amber)	LED will be Turned when input Power Present
8	Temperature Sensor	Temperature Sensor	This will measure the On board temperature
Hardware Features			
9	Current Monitoring	Current monitoring for both FANs Power lines Min Current : 100mA Max Current: 500mA	
10	Relay Control & Specifications	Current Capacity: AC250V / 10A	
11	Protection circuitary	Over Voltage protection and Over Current protection For FAN Output and Power In AC	
Power Supply			
12	Input Voltage	AC 100V-230V	
13	Input Current	4A (Max)	

Specifications

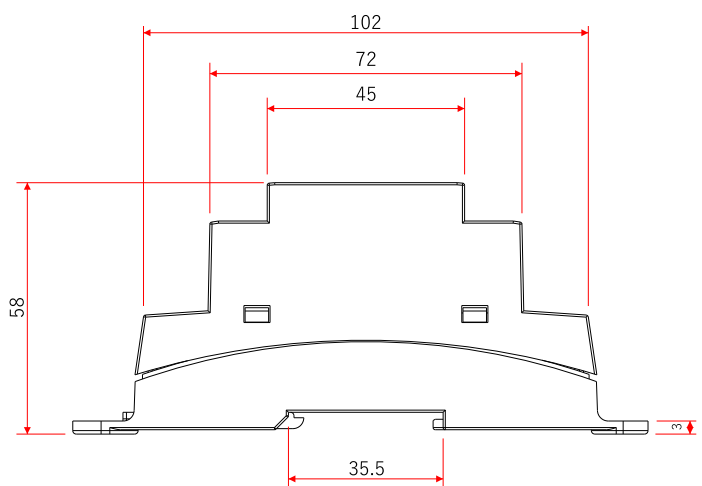
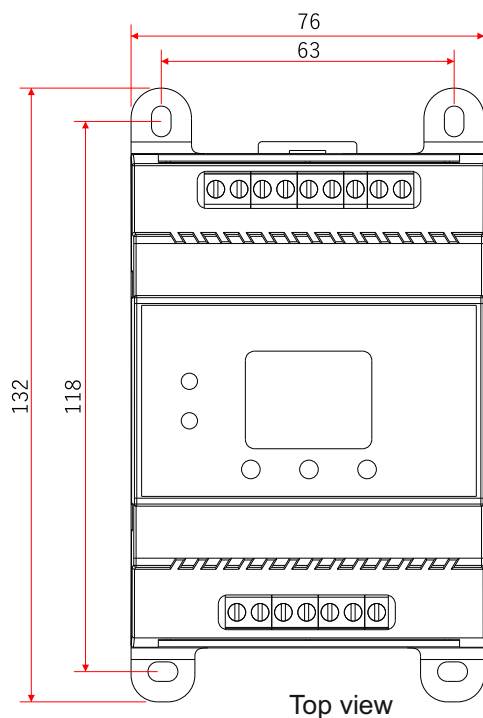
S.No.	Parameter	Description	Remarks
Environmental & Compliances			
17	Operating temperature	-10°C to +75°C	
18	Storage temperature	-20°C to +85°C	
19	Ambient humidity	5 to 90% relative humidity (non-condensing)	
20	Insulation Resistance	2000MΩ @ 1000V DC.	Between Power and Relay contact outputs
21	Dielectric Strength	1500V AC for 1 minute.	Between input Power terminals and relay contact outputs
Mechanical			
22	FFDU Enclosure Dimesions	Planned: 132mm (L) X 76mm (B) X 58mm (H)	
23	Weight	less than 1Kg.	

ORDERING TABLE

68.01.01.10.05.24



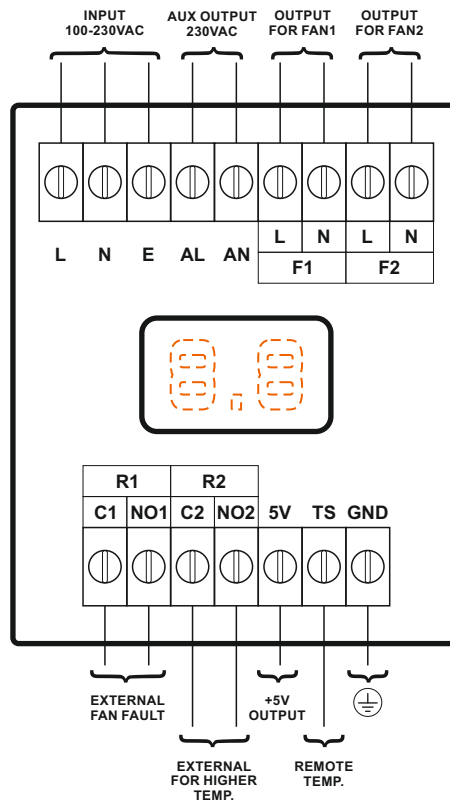
Mechanical Specification



Side view

68.01 Series

Connection Diagram



TB Connection

S.No.	Description	Text On PCB	Pin No.	Remarks
INPUT SIDE CONNECTOR				
1	Power IN LINE (AC 230, 50Hz) FUSED at 4A	L	1	
2	Power IN NEUTRAL	N	2	
3	Power IN EARTH	IE	3	
4	AUX Power Out LINE (AC 230V, 50Hz, Max 1A)	AL	4	
5	AUX Power Out NEUTRAL	AN	5	
6	Fan1 LINE (AC 230, 50Hz, Max 1A) FUSED at 2A	F1	6	
7	Fan1 NEUTRAL		7	
8	Fan2 LINE (AC 230, 50Hz, Max 1A) FUSED at 2A	F2	8	
9	Fan2 NEUTRAL		9	
OUTPUT SIDE CONNECTOR				
1	Relay1 NO	C1	1	
2	Relay1 COM	NO1	2	
3	Relay2 NO	C2	3	
4	Relay2 COM	NO2	4	
5	5V (50mA Max)	+5V	X	Currently NOT Enabled ON Board Temp Sensor Enabled
6	OPTIONAL REMOTE TEMP SENSE	TS	X	
7	GND	GND	X	

TECHNICAL INSTRUCTIONS

► Indications:

- Power supply : AMBER LED for Power ON.
- Fan module : 1) Dual colour LED, GREEN LED for Fan Healthy and RED LED for Fan fault common for both fans.
2) Dual colour LED, GREEN LED for Temperature OK and RED LED for Temperature higher then preset value

► Protections:

- Fan short circuit or open circuit, power supply switches OFF to the particular fan.

► Failure Detection:

- Fan stuck fan open circuit, Fan imbalance, Speed drop, Fan coil burn.
- Temperature higher then preset value.

► KEY SWITCH DETAILS:

- **SET** – Long press to the tune FFD module and to increment preset values at the time of tuning.
- **ENT** – Press key switch to register the new set temperature.
- **RST** – Press button is used to reset the fan fault temperature condition and to decrement preset values at the time of tuning.

► Display:

- 7 segment LED display Size : 0.39 inch, colour Red, Value: 0–99.
- If fan is healthy & temperature is within the preset value, display will be showing ambient temperature in °C.
- On failure of fan and/or temperature, the display toggles between.
 - “F1 value” if Fan 1 failed.
 - “F2 value” if Fan 2 failed.
 - “F1, F2 value” if both fans failed.
 - “F1 & TT” IF Fan 1 and temperature failed.
 - “F2 & TT” IF Fan 2 and temperature failed.
 - “F1, F2 & TT” IF both fans and temperature failed.

► Temperature sensor:

- In-built temperature sensor mounted.

► Mounting:

- Din Rail mountable.
- Plug in module is inserted on to the base & held firmly by spring clips.

► Input / output wiring:

- Screw type terminals (See connection diagram).



WERNER

Inventing Innovation...

Headquarters:

Werner Electric Private Limited

#278/C, Hebbal Industrial Area, Mysore-570018, India
Tel: +91 73539 47299, E-mail: info@wernerelektrik.com

Werner Malaysia Sdn Bhd,

45-2, Jalan Tiara 2B, Bandar Baru Klang,
41150, Klang, Selangor, Malaysia.
Tel: +60 13 533 3348, E-mail: info@wernerelektrik.com

Werner Elektrik Türkiye

Ayazağa Mah. Mimar Sinan Sok. Seba Office Boulevard.
D Blok. No.: 21D/45 Sarıyer / İstanbul, Türkiye.
Telefon: +90 539 829 25 07 , E-posta: info@wernerelektrik.com

www.wernerelektrik.com