

OPERATION MANUAL

AC FAN STATUS MONITORING UNIT

FSM-R8A



ASHE FSM-R8A

FAN STATUS MONITORING

ASHE FSM-R8A is designed to monitor the rotor status of 2 Wire AC Cooling Fans. A Single Unit can monitor up to 8 AC fans. The unit will change over a relay contact if any of the connected fans to the unit is faulty i.e. Rotor has been blocked or Power supply failure to the AC fans.

Operation:

1. The device is powered by 90-270VAC, 50 Hz supply.
2. It can be connected to AC Fans.
3. It has a Mode Selection DIP switch which gives the user to attach any number of fans up to 8 for single unit. According to the number of fans connected to the unit, the DIP switch need to be set accordingly. The detail of this is mentioned below.
4. The unit has a LED panel Indicator which indicates status of the Fans rotors. The LEDs will glow green if the fan's rotor are rotating normally and will glow red if any fault or failure occurs.

DIP SWITCH SETTINGS.

1. The DIP switch is marked with numbers on the front sticker of the device.
2. The ON and OFF position are marked on the PCB.
3. Each number on the sticker corresponds to the Fan number Connected to the device i.e. Number "1" on the DIP switch corresponds with Number "1" of the Fan input on the device.
4. If a particular Fan is connected to the devices then the corresponding DIP switch needs to be turned "ON". e.g. If a Fan is connected to the Device's 1st Fan1 input then the 1st switch needs to be turned "ON"
5. If a particular Fan is not connected the corresponding DIP switch needs to be turned "OFF". Other wise the device will flash red LED corresponding to the DIP switch on the panel indicating a Fan failure condition.

Relay Connections:

1. For DC powered Alarm, the "C" port of the Device should be connected to the "+" of the Power Supply. The "NO" port should be connected to the "+" of the Alarm device. The "-" of the device and Ground of the power supply need to be connected together.
2. For AC powered alarm device, the "C" port of the Device should be connected to the "L" of the Power Supply. The "NO" port should be connected to the "L" of the Alarm device. The "N" of the device and the power supply need to be connected together.
3. If user requires connecting multiple units to single Alarm device the Relay ports have to be connect in parallel. i.e. "NO" is to be connected to "NO" of the other device, "C" to be connected to the "C" of the other device.

Fault Condition:

1. If a Particular Fan connected to the device is blocked by some Blockage, the led corresponding the Fan number will start flashing red light and the relay contact change over will take place.
2. If a fan is connected to the device but the corresponding DIP switch is not turned "ON" the LED will not flash anything and show nothing.
3. If a Fan is not connected to the device but the corresponding DIP switch is "ON" the LED panel will flash Red light on the corresponding Fan number and the relay contact change over will take place.

Steps to be followed after a particular fault are occurred:

Case 1: Fan's Rotor is rotating but the Alarm is ON.

1. Note the Fan numbers which has Red LED is flashing.
2. Check the corresponding Fan's connection and FSM-R8A terminal connection. If the connection is faulty, correct the fault.

Case 2: Alarm is ON and Red LED is flashing.

1. Check the panel on which Red LED is flashing.
2. Check for any blockage in the Fans rotors .Remove the blockage.
3. Correct the Fault.

Case 3: Alarm is ON and LED is not flashing.

1. Check the corresponding Fan's connection and device's output connection.
2. If the connection is faulty, correct the fault.
3. If the connection is healthy perform steps in Case 2.

Case 4: LED not glowing.

1. Check for the LED Panel and Device connection (Connecting cable).
2. If the connection is proper, check the corresponding DIP switch.
3. Turn "ON" the DIP switch.
4. If the Red Led starts flashing perform Steps in Case 2.

FAN STATUS	DIP SWITCH	LED INDICATION
Healthy condition	ON	Green led
Healthy condition	OFF	OFF
Stop condition	ON	Green led
Disconnected	ON	Red led blinking

TECHNICAL SPECIFICATIONS

Model	: ASHE FSM-R8A (AC power supply)
Type	: Microcontroller based Fan Status Monitor
No. of Channels	: Eight
Type of Fans	: AC: Two-wire Fans
LEDs Type	: Bipolar –Green and Red
Alarm Output	: Control Relay potential-free contacts
Contact Rating	: 7 Ampere @ 230 VAC
Fan selection	: DIP switch settings on front panel
Mounting	: DIN Rail within the panel
Power Supply	: 90-270 VAC, 50/60 Hz
Dimensions	: 100(W) x 75(H) x 110(D) mm.
Control Module	: DIN Rail mounting.