

OPERATING INSTRUCTIONS FAN FAILURE DETECTOR





The Fan Failure Detector is a micro-controller based DC Supply Fan failure detection unit, rugged and reliable execution. The instrument has two led on the front panel. Fan failure detection unit is used for detecting failure of cooling fans mounted in switch-gear panels in the event of short or open circuit or in case of absence of power supply to the fan.

The instrument also senses the normal healthy current being drawn by the fan and provides short-circuit and open-circuit protection by cutting off the supply to the corresponding Fan in case any abnormality is detected.

| Туре | Micro-controller based module for ambient temperature monitoring and control of two cooling Fans. | |
|------------------------|---|--|
| Number of Fans | 10.0 | |
| Input Fan current | 0-5A AC at pin no. 7 and 9 | |
| Indications | Two Single Color Led Fan :Red LED for indication of Fan status(ON) PWR :Red LED for Power ON | |
| Auxiliary power supply | 8-28V DC | |
| Failure Detection | Fan short circuit or open circuit | |
| Mounting | Plug in base mounting on Din Rail Channel. | |
| Input/Output wiring | Shall be suitable for screw type terminals | |
| Output | Fall Indication (low Side Switch, Programmable as normally open or normally closed. Open when device powered off). | |
| Dimensions | 92x 37x 66 [H x W x D]. | |
| Enclosure | Poly-carbonate. | |
| | | |

1. Technical Specifications :

Operations and Settings:

On Power ON, the power led will glow and FAN ON LED indicate the fan status. The fan is ON then FAN ON led is glow otherwise off.

LED Description:

| Nomenclature | Condition | Description |
|--------------|-----------|---|
| POWER | POWER ON | This LED is glow when the auxiliary supply will flow. |
| FAN ON | ON LED | The FAN ON LED is glow ON only when the FAN is ON Condition or in healthy condition. If FAN ON LED is not glow then there is possibility that FAN is not ON or in unhealthy Condition. |
| FAN ON | Blink LED | If FAN LED blink continuously 5 times then the FAN is going healthy to unhealthy condition or unhealthy to healthy condition. |

Mode Description:-

| Nomenclature | Description |
|--------------|--|
| M1 | M1 means in mode 1. In this mode the supply connection are set at pin no. 1 and 2.The Positive terminal set at pin no. 1 and the negative terminal set at pin no. 2. |
| M2 | M2 means in mode 2. In this mode the supply connection are set at pin no. 1 and 3. The Positive terminal set at pin no. 1 and the negative terminal set at pin no. 3. |
| М3 | M3 means in mode 3. In this mode the supply connection are set at pin no. 1 and 4. The Positive terminal set at pin no. 1 and the negative terminal set at pin no. 4. |
| M4 | M4 means in mode 4. In this mode the supply connection are set at pin no. 1 and 3 or 4. The Positive terminal set at pin no. 1 and the negative terminal set at pin no. 3 or 4 together. |
| DI3 open | IN this mode we will not give negative supply at pin no. 5 the fault Output is in NO (Normally Open) in healthy condition. |
| DI3 Aux -ve | IN this mode we will give negative supply at pin no. 5 the fault Output is in NC (Normally Close) in healthy condition. |

Pin Description: -

| Nomenclature | Description |
|----------------|--|
| Pin no.1 and 2 | At Pin no.1 we give positive supply at this pin and at Pin no. 2 we will give negative supply. This Supply is permanent at these two pins. |
| Pin no. 3 | This Pin is represent a digital input 1. Here we also give negative supply by pin no. 2. |
| Pin no.4 | This Pin is represent a digital input 2. Here we also give negative supply by pin no. 2. |
| Pin no.5 | This Pin is represent a digital input 3. Here we also give negative supply by pin no. 2. |
| Pin no.6 | This Pin is represent the Fault Output. |
| Pin no.7 | At this Pin we connect first terminal of Fan current. |
| Pin no.8 | BLANK |
| Pin no.9 | At this Pin we connect second terminal of Fan current. |
| Pin no.10 | BLANK |
| Pin no.11 | BLANK |
| Pin no.12 | BLANK |

Model selection table:-

| Model | DI 1 | DI 2 | Low | High |
|-------|--------|--------|------|------|
| M1 | Open | Open | 0.1A | 0.8A |
| M2 | Aux-Ve | Open | 0.1A | 1.1A |
| M3 | Open | Aux-Ve | 0.1A | 2.5A |
| M4 | Aux-Ve | Aux-Ve | 0.1A | 3.5A |

| DI 3 | Fault Output |
|---------|--------------|
| Open | NO |
| Aux -Ve | NC |

Connections:-

FAN FAILURE DETECTOR



Dimensions :-



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