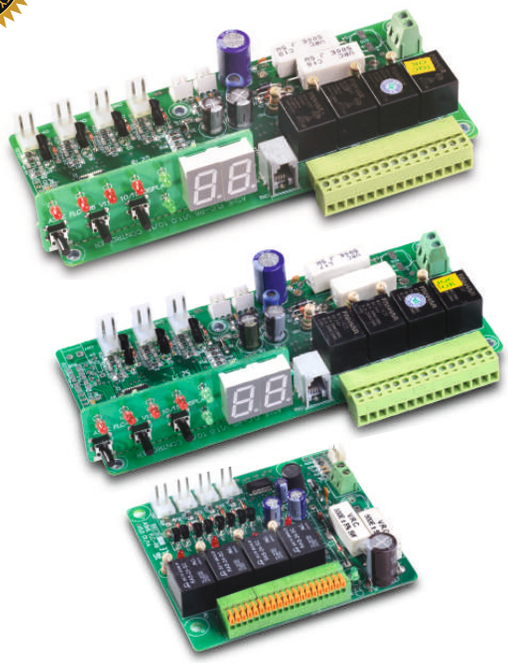
ASHE CONTROLS PVT LTD
an ISO 9001:2015 certified company

FLC-R6

FLC-Series Fan Logic Controller



Overview

The FLC series Temperature Monitored multi-fan Logic Controller is a compact and rugged instrument designed to monitor and control the temperature within the Server Cabinets to ensure smooth and safe operations. Apart from offering power-saving, noise reduction, monitoring critical parameters and fan life-enhancing features, it is also an effective safety device parameters and fan life-enhancing features, it is also an effective safety device that protects the expensive hardware and software in the rack from possible damage due to temperature over-shoots or power related failures.

The Temperature Monitored Fan Controller provides a controlled switching which energizes the fans selectively or synchronously, as required, so as to regulate the temperature inside the panel within acceptable limits, while maintaining a linear air pressure output. Fixed Speed or Speed Control options are offered.

The Controller also continuously monitors the status of ancillary equipment within the Rack, such as the Smoke Detector and the Door Switch (if required), and provides switching of the Fans on receipt of signals from these equipment. The Duty Cycle of each Fan is also rotated sequentially so as to distribute the load on each Fan, thus enhancing the life of each Fan. Four Relays are provided on the Card for the various alarm conditions. All alarm conditions are indicated by red LEDs on the Card. The Fan Control Card operates on 48 VDC (or as required).

The Fan Logic Controller is offered for 1, 2, 3, 4, 6 and 8 Fan configurations. In conclusion, the Temperature Monitored Fan Controller provides effective control of the following vital parameters in Server Room or Outdoor conditions :

- Significant savings in high electricity (power) costs.
- Extending the life of Cooling fans by selective operation.
- Maintaining low noise levels.
- Accurate temperature control within the Outdoor Server Cabinet, thereby protecting expensive equipment.
- Reduction of load on UPS or Battery back-up.

This product is backed by a full two-year warranty, covering all manufacturing defects and workmanship issues under normal operating conditions.

Specifications

Model	FLC-R6.
Type	16-bit Micro-controller based Monitored Fan Logic Controller
No. of Fans	Offered for 1,2,3,4,6 and 8 Fans.
Fan Voltage	48 VDC (or as required).
Fan type	DC Brushless Axial Cooling Fans, Dual bearing,120 x 120 mm dimensions.
Fan Capacity	Upto 500 CFM.
Monitored Parameters	Temperature monitoring within Rack Door Open/Close status / interlock. Smoke Detector sensor monitoring. Fan Speed. Fan Fail / Blocked Rotor.
Control outputs	Four Relay potential-free change-over contacts for following alarm conditions : Relay 1 : Smoke Detector Alarm condition Relay 2 : Door Open Alarm condition Relay 3 : Fan Blocked Rotor condition Relay 4 : Temperature Overshoot
Contact Rating	7 Ampere @ 48 VDC.
Alarm Indications	Green LED for Power On Red LED for Smoke Alarm Red LED for Door open Alarm Red LED for Blocked Rotor condition Red LED for Temperature overshoot
Hysteresis	2^{0}C (default).
Input Sensors	Temperature Sensor (Electronic, with extended 3 meter cable). Door-switch contacts Smoke Detector contacts Tacho (FG) feedback input from Fans. PWM speed signal to Fans. Blocked Rotor (Rotation) signal from Fans. (Note : Smoke Detector & Door Switch are not in our scope)
Operational Logic	As required.
Power Supply	48 V DC.
Enclosure	To be fitted in 1U Fan Tray enclosure (not in our scope).
Mounting	Mounting adjacent to Fans on stand Offs.
Connections	PCB mounted 2.5 mm^2 terminals. Plug in connectors for Fan signal.
Dimensions	90 x 90 x 35 mm [L x W x H] approx.
Operating Temp	0 to 60^{0}C

Features

- Micro-controller based design
- Significant saving in power consumption
- Automatic temperature control within Rack
- Considerable enhancement of Fan life
- Temperature Display Option
- Ambient and cabinet Temperature sensing & control
- Minimized noise level of exhaust fans
- Remote alarm for temperature abnormalities and sensor faults
- Reduction of load on UPS
- Protection of expensive Rack mounted equipment
- Slim aesthetic design.
- Negligible power consumption and heat dissipation
- Monitors anclillary parameters like Door Switch, Smoke Detectors, etc.
- Monitors safety of rack equipment.
- Compact 1U panel in 19" rack mounting
- Temperature Indication option
- Two-year Performance Warranty
- Proven track record of successful site installations

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