# **FAN SAFETY ALARM CIRCUIT**

### **RIBMNLB**

2.75" Track Mount AHU Fan Safety Alarm Circuit, 24 Vac Power Input

Power Input

AA

AMax.

2mA @ 24Vac/dc 3A @ 24Vac/dc 3A @ 24Vac/dc 750mA @ 24Vac/dc

2mA @ 24Vac/dc 2mA @ 24Vac/dc 2mA @ 24Vac/dc 2mA @ 24Vac/dc 3A @ 24Vac/dc 750mA @

Dry Contact Outputs (To Controller)

Dry Contact
Output
10A @ 277 Vac
10A @ 30 Vdc
1/2 HP@120/240Vac
B300 Pilot Duty

**Panel** 











CAN BE USED TO
ISOLATE FIELD DEVICES
FROM EACH OTHER AND
FROM CONTROLLER,
NOT ONLY FAN CIRCUITS

CODE VER. 1.0

Field

### **SPECIFICATIONS**

For Indoor Use

in Dry Locations

Expected Relay Life: 10 million cycles minimum mechanical

Operating Temperature: -30 to 140° F

Humidity Range: 5 to 95% (noncondensing)

Operate Time: 250ms

Power Input: 4 Amp Max @ 24 Vac/dc; 50-60 Hz

Alarm Status: LED On = Activated Dimensions: 6.000" x 2.750" x 1.200"

**Track Mount:** MT212-6 Mounting Track Provided **Approvals:** UL Listed, UL864, C-UL, CE, RoHS, CSFM

Housing Rating: UL Listed, NEMA 1, C-UL, CE

Gold Flash: No Override Switch: No

### Notes:

• RIBMNLB has four Alarm Inputs and one Master Alarm.

A master relay will open if any one of the normally-closed (N/C) inputs open. LED status of all outputs and the master relay is provided. The RIBMNLB is provided with mounting track for mounting in user-provided electrical enclosures. The RIBLB is enclosed in a NEMA 1, 4" x 7" enclosure with a clear lid to allow viewing of the status LEDs. The master relay has two general-purpose outputs: one 24 V output terminal and one dry contact output rated up to 10 Amp @ 277 Vac. Fan status contact controls actuator power. The most common application is an Air Handling Unit (AHU) fan-safety-shutdown where the master relay is used to shutdown the fan. Contact closure outputs are provided so that a DDC controller can determine the cause of a shutdown.

Model RIBMNLB combines all the relay logic to facilitate fan status, fan safety control, and damper actuator control. It is intended for use in a circuit that will control fan start/stop and fan safety shut-down circuit monitors three critical inputs:

- Low-limit freeze protection (to stop fan and remove power from damper actuator)
- Static pressure (to monitor for hi/low pressure condition)
- Smoke detector / fire alarm

# Master relay opens to shut down AHU when any Normally Closed input opens.

Integral DIP switch allows any input to be latched. Input can be reset with push button or by cycling unit power.

Installing J1 jumper allows Fan Status input to control Master Relay, like the other 3 inputs.

#### **///** $(\Pi)$ -White -H = 120Vac -N = Emergency Power -G = with ground 24Vac COM → DO-3 ◆ Digital inputs to controller (1) \_R4 FS-S 24Vac (2) 24Vac 16⊶ |-• status DI R1 LL-A R2 SP-A R3 SMK/FA Fan Fan Safety Relay DL-1 R1 I I - A PB-1 R1 LL-A R2 SP-A 12**0−1 1−0−** Press Alarm Di Static 3 Pressure R2 SP-A Smoke To Motor Status FS-S R3 SMK/FA ire Alarm T **RIBX Series** $\overline{(7)}$ R4 FS-S Fan Status R4 FS-S Actuator Power (8) DL-1 **RIBMNLB** t power-up, dela sec before DL-1 (Track Mount) ecomes activated This drawing represents: RIBLB (Enclosed) Only Low Limit Latch Set • J1 Jumper Not Installed



Functional Devices, Inc. 101 Commerce Drive Sharpsville, IN 46068 Toll-free: (800) 888-5538 Office: (765) 883-5538 Fax: (765) 883-7505 Email: sales@functionaldevices.com Website: www.functionaldevices.com

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