Made in USA

ICM491
Single Phase Line Monitor

The ICM491 is a very low cost, highly accurate, rugged, single-phase voltage monitor designed to protect single-phase devices from the following abnormalities...

Protects Against...

- *Low Voltage*
- *Power Interruptions*
- *High Voltage*
- *Rapid Short-Cycling*

Features

- **Protects Against:**
  - **Over/under voltage**
  - **Rapid short-cycling**
  - **Power interruptions**
- **Heavy Duty SPDT Relay Output:**
  - **5 amp relay output to operate control circuitry or contactor**
- **5-Second Fault Interrogation Period:**
  - **Unit trips if power is abnormal for 66% of interrogation time**
- **Anti-Short Cycle (ASC) Time Delay:**
  - **Delay on Break (.1 to 10 minutes)**
- **LED Indicators:**
  - **Green LED On: Power is valid, relay energized**
  - **Red LED Rapid Flash: Unit currently detects high/low voltage situation**
  - **Red LED Blinking: Power is currently valid; unit is waiting for end of ASC delay**
- **Low Cost, Single Phase Equipment Protection**
- **Ordering Information:**
  - **ICM Part Number: ICM491**

Mode of Operation

Designed in a small, easy-to-mount case, the **ICM491** continuously monitors incoming line voltage for errors. When line power is appropriate, the **ICM491** closes a set of N.O. contacts and lights a green LED. When incoming power is outside of user selected parameters, the N.C. contacts will close and a red LED will illuminate, indicating current fault conditions. This unit also interrogates the line during fault conditions to reduce nuisance trips from transients or compressor start ups.

Specifications

Epoxy-Encapsulated:
- For use in extreme environmental conditions

Connection Terminals:
- 0.25" male quick-connect

Storage Temperature Range:
- -40°C to +85°C

Operating Frequency:
- 50/60 Hz

Power Loss Detection/Trip:
- 45 ms maximum

Maximum Operating/Storage Relative Humidity:
- 95% non-condensing

User Selectable Anti-Short Cycle Delay on Break Timer:
- .1 to 10 minutes

5-Second Fault Interrogation Period:
- Unit trips if power is abnormal for 66% of interrogation period

User Selectable Voltage Setpoint:
- 95 to 135 VAC RMS based on field wiring
- 190 to 270 VAC RMS based on field wiring

High/Low Voltage Cut-In/Out:
- High voltage cut-out at setpoint +12%
- High voltage cut-in at setpoint +8%
- Low voltage cut-out at setpoint -12%
- Low voltage cut-in at setpoint -8%

Low Temperature Drift:
- Voltage read error <± 2 VAC RMS (-40°C to +75°C)
- Operating temperature range (-40°C to +75°C)

Relay Contact Rating:
- ***N.C. Contacts:*** 5A resistive @ 277 VAC
- ***N.O. Contacts:*** 5A resistive @ 277 VAC

Low Power Consumption:
- ***Maximum:*** 21 mA @ 140 V @ 25°C
- ***Maximum:*** 31 mA @ 280 V @ 25°C

Case Dimensions:
- 3"L x 3.25" W x 1.5" H

LIS55

All features and specifications subject to change without notice.

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ICM CONTROLS™

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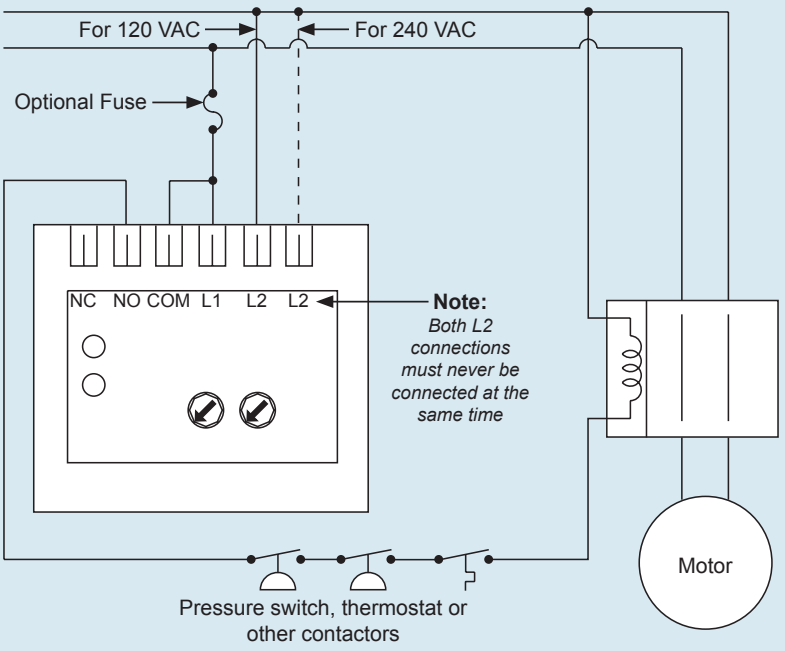
Wiring Diagram



System Diagram