



M-TRONIX
B R A M C O
SAFETY INNOVATORS



PRM2 – Phase Rotation & Phase Loss Monitor

Product Overview

The **PRM2 Phase Rotation/Loss Monitor** from **m-Tronix** is a next-generation protection device for **three-phase electrical systems**, offering reliable monitoring of **phase rotation**, **phase loss**, **undervoltage**, and advanced safety functions such as **Earth Leakage Lockout** and **Frozen Contactor Protection**.

Designed to meet **AS2081:2011** and other relevant statutory and industry standards, the PRM2 ensures compliance and safety in critical mining and industrial environments. Compact and panel-mounted, it delivers fast, accurate phase condition monitoring for neutral-referred systems operating at voltages up to **1100V AC**.

Application

Ideal for mining and general industry, the PRM2 is designed to:

- Detect incorrect **phase rotation** (CW/CCW)
- Identify **phase loss** conditions
- Monitor **undervoltage**
- Comply with **AS2081:2011** for Earth Leakage Lockout and Frozen Contactor Protection

This makes the PRM2 an essential component in electrical safety systems for switchboards, MCCs, substations, and other three-phase applications.

Key Features

Comprehensive Phase Monitoring

- Monitors **Phase A, B, C** and Earth
- Detects **Phase Loss, Undervoltage, and Rotation Direction**
- Identifies **CW (Clockwise)** and **CCW (Counter-Clockwise)** rotation

Relay Outputs

- **Phase OK Relay** (voltage-free changeover contact)
- **CW Rotation Relay** (voltage-free changeover contact)
- **CCW Rotation Relay** (voltage-free changeover contact)

These relays allow external systems to respond to safe or unsafe phase conditions automatically.

LED Indications

- Clear visual status of:
 - Phase A, B, C presence
 - Rotation Direction (CW or CCW)
 - Phase Loss detection

Compact, Panel-Mounted Design

- Easy integration into existing panels
- Ideal for tight control cabinets and MCCs

Low Power Consumption

- Designed for efficient continuous monitoring with minimal power draw

Operating Principle

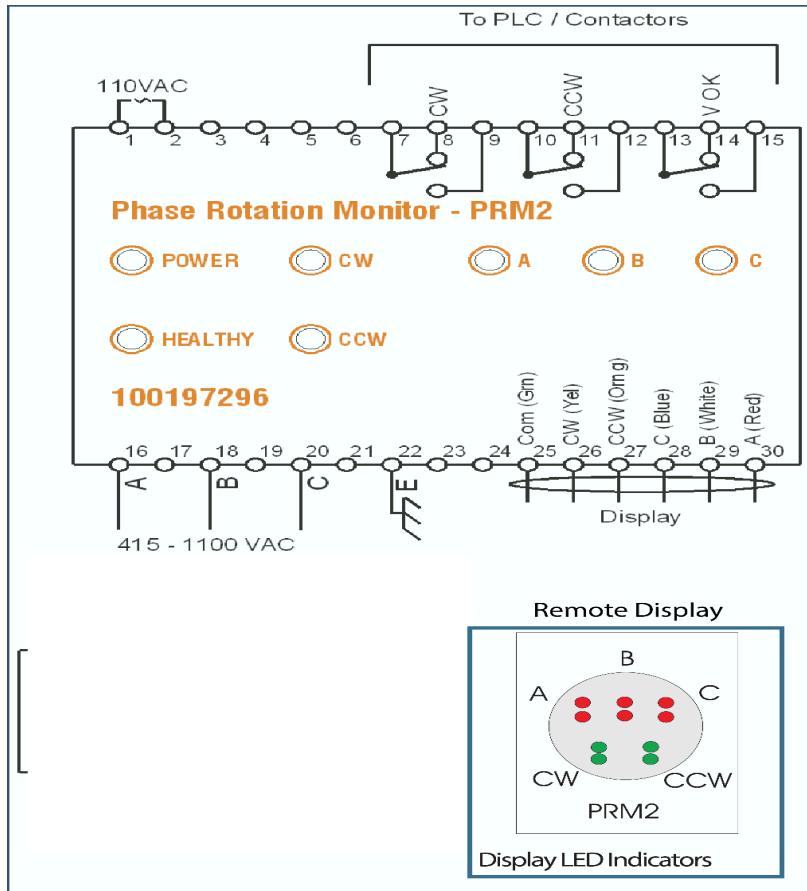
- When **all three phases are present and correct**, the **Phase OK relay** closes, along with either the **CW** or **CCW rotation relay** (depending on detected direction).
- If **any phase is lost** or voltage drops below threshold, all relays open, indicating a fault.
- LEDs provide a clear indication of any missing phase or incorrect rotation.

Technical Specifications

Parameter	Details
System Voltage	415 V / 1100 V AC
Control Power Supply	110 V AC (for operation and remote display)
Supported Circuits	Neutral-referred 3-phase systems
Outputs	3 x Voltage-free changeover relay contacts: - Phases OK - CW Rotation - CCW Rotation
LED Indicators	Phase A, Phase B, Phase C CW/CCW rotation status
Mounting	Panel-mounted
Design Standard	Compliant with AS2081:2011

Ordering Information

Part Number	Description
A00954	PRM2 Module (Phase Rotation/Loss Monitor)
A00955	PRD Indicator Module
A01098	PRM2 – 24–48 V AC/DC Variant



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