# **Top 10 Monitoring Relays** (by US sales) Use cases





HRN-31 (replaces HRN-33, -63) 1P AC/DC Multifunction Voltage Monitoring Relay

**Described Function** Overvoltage Monitoring

#### Manufacturing CNC Machining Center

Prevents CNC machine control unit damage by monitoring for states above the voltage limit.

Maintains operational precision, reduces downtime, and repair costs by ensuring voltage is within safe limits for the equipment.



HRN-32/2 (replaces HRN-35) 1P AC/DC Multifunction Voltage Monitoring Relay

**Described Function** Dual Overvoltage Monitoring Data Centers Dual Power Supply Units for Servers

# Prevents server power supply damage by monitoring for states above the voltage limit.

Maintains operational safety, reduces downtime and repair costs by ensuring voltage is within safe limits for each power circuit.



HRN-36 (replaces HRN-34, -64) 1P DC Multifunction Voltage Monitoring Relay

**Described Function** Overvoltage + Latch



HRN-39 (replaces HRN-37, -67) 1P AC/DC Multifunction Voltage Monitoring Relay

**Described Function** Undervoltage Monitoring **Public Transportation** 

Ticket Vending Machines

# Prevents vending machine failure by monitoring for states above the voltage limit.

Maintains service reliability, reduces downtime, and repair costs by ensuring voltage is within operational safety limits.

Healthcare Medical Laboratory Refrigerators

# Prevents damage to sensitive samples by monitoring for states below the voltage limit.

Ensures critical temperature control is maintained, reduces risk of sample spoilage, and supports compliance with healthcare standards.



HRN-56 3P AC Overvoltage and Phase Monitoring Relay

**Described Function** Phase Failure Monitoring

### Utilities

Electrical Substation Transformer

# Detects phase failure in transformers to prevent damage and maintain power distribution efficiency.

Ensures consistent electrical supply, reducing the risk of power outages and associated costs by maintaining grid reliability.

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**PRI-32** 1P AC Overcurrent Monitoring Relay

**Described Function** Overcurrent Monitoring

#### Commercial Kitchens Industrial Ovens

Ensures consistent heating and prevents damage to heating elements by monitoring overcurrent conditions.

The external shunt is well-suited to high-heat environments, safeguarding kitchen operations and food quality.



PRI-34 1P AC Multifunction Current Monitoring Relay

**Described Function** Window

### Renewable Energy

Solar Panel Inverters

# Prevents inverter damage by monitoring for current outside operational ranges.

Maintains system efficiency, reduces downtime, and repair costs by ensuring current is within safe limits for the equipment.



PRI-51 1P AC Overcurrent Monitoring Relay

**Described Function** Overcurrent with Hysteresis Construction

Electric Floor Heating

# Prevents floor heating system overload by monitoring for current beyond safe limits.

Enhances safety and efficiency, using hysteresis to minimize unnecessary switching, maintaining a consistent and optimal heating environment.



PMR1-31 1P AC/DC Multifunction Voltage Monitoring Relay

**Described Function** Window + Latch Industrial Automation Automated Assembly Line Equipment

# Monitors voltage levels to ensure automated equipment operates within safe electrical conditions.

The latch function locks the system in a safe state, requiring a manual restart, preventing damage due to persistent unstable conditions.



PMR1-36/2 1P DC Multifunction Voltage Monitoring Relay

**Described Function** Dual Window Monitoring Water Treatment

Pump Control Systems in Water Distribution

# Ensures pumps operate within precise voltage windows, critical for water flow consistency.

Dual circuits allow monitoring of two systems, improving reliability and efficiency in water distribution.