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MCB Trip Monitor Module (MTMM)

Product Description

Whilst an IPS system provides greater continuity of the power supply by protecting against (and alarming on) the first earth fault on an individual system, many users believe an IPS would be further enhanced by alarming if an individual circuit has lost power as currently there is no warning for clinical staff that power has been lost.

To continually meet our customers' needs and expectations we have developed and additional supervisory module to monitor individual circuits, and provide an alarm, when any MCB has tripped within the IPS system.

This could occur if an individual circuit is subject to a large "in-rush" or overload current, or when two separate earth faults (e.g., line 1 and line 2) are present on the system simultaneously.

The MTMM has the following functions:

- Individual voltage monitoring between L1 and L2 for 16 circuits
- LED identification of circuits in alarm for voltages less than 100V AC
- Deactivation of any unused MCB's in the panel
- Conflict error monitoring and alarming
- Modbus communication for remote individual circuit identification
- BMS volt free common alarm

The alarm module can communicate via Modbus with the RA003 Text alarm for individual MCB identification and with the BMS using a volt free common alarm.

The fascia has individual red LEDs showing the status of each MCB. Modbus serial communications, over RS485, is also available to provide individual circuit status to the BMS or IPS remote alarm.

To observe the live status of any serial communications, there are individual LEDs for communication to transmit and receive. The address can easily be configured using dip switches on the front of the module and a volt free contact available for direct connection to the BMS or other equipment.

For safety purposes, outputs on any unused MCB's in the IPS distribution board can be electrically Isolated. To prevent this giving an unintentional trip signal to the alarm, each MCB may be deselected from monitoring, using the dip switches on the front of the module. If a deselected MCB has a measured voltage between the output poles, a conflict error (flashing LED) and alarm will be activated.

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Supply	110-230VAC 50/60Hz ±10%
Voltage inputs	Up to 16 voltage inputs to be connected. Each channel monitors the L1 and L2 lines of each MCB connected, giving 32 possible connections in total.
Communication	Modbus RTU (Remote Terminal Unit) compatible in operation with an Allen Bradley MicroLogix 1100 or 1200. The link will be half duplex running at 9.6k baud (up to 38.4k is available), No parity checking, 8 data bits and 1 stop bit.
Relay Output	A single V.F. Changeover relay contact is provided. The current rating is a minimum 5.0A AC1
Status indication LED's	16x for each voltage input (Red) 1x for AC Power (Green) 2 x Modbus Activity LED's (Tx, Rx) (Red)

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