2010 Series

SIGNAL MONITOR UNITS FOR CALTRANS CABINETS

Utilizes enhanced monitoring functions to increase cabinet fault coverage, providing additional assurance that cabinet equipment malfunctions will be detected and diagnosed properly.

FEATURES

- Fully compatible with requirements of 170, 179, and 2070 Controller Units
- Enhanced 210 Monitoring Functions
- Event Logging
- RYG Full Intersection Display
- EDI RMS-Engine
- Recurrent Pulse Detection

HIGHLIGHTS

- LEDguard®
- Communications to Laptop PC or Remote Traffic Management Center
- Signal Sequence History Display
- Configuration Monitor
- Flashing Yellow Arrow PPLT

MEETS MUTCD STANDARDS

BUILD AMERICA, BUY AMERICA COMPLIANT

ISO 9001 CERTIFIED

2 YEAR LIMITED WARRANTY

CALTRANS CABINET COMPATIBLE

Enhanced 210 Monitoring Functions

The 2010ECL meets all requirements of the Caltrans "TSCE Specifications 1/89" and Caltrans Transportation Electrical Equipment Specifications (TEES) of March 2009. Basic fault coverage includes Conflict, 24Vdc, and CU Watchdog monitoring. Red Monitoring senses the absence of signals on a channel. Dual Indication Monitoring detects simultaneous active signals on a channel. Clearance Monitoring ensures sequencing of signals with a proper minimum yellow clearance interval. AC Line Monitoring detects and responds to low AC Line voltages as well as interruptions with a minimum flash interval.

Event Logging

The 2010ECL monitor maintains a 100 record nonvolatile event log which contains records of fault events showing the complete intersection status as well as AC Line events, configuration changes, monitor resets, cabinet temperature and true RMS voltages. A real time clock time stamps each log event with time and date.

RYG Full Intersection Display

The Full Intersection display uses Red, Yellow, and Green LEDs to show active colors of all channel inputs simultaneously for real-time intersection status.

EDI RMS-Engine

A DSP coprocessor converts ac input measurements to True RMS voltages, virtually eliminating false sensing due to changes in frequency, phase, or sine wave distortion.

Recurrent Pulse Detection

Recurrent Pulse Detection works in conjunction with the RMS-Engine to detect faults that are pulsing or intermittent in nature.

LEDguard®

This EDI innovative signal thresholding technique is used to increase the level of monitoring protection when using LED based signal heads.

Communications to Laptop PC or Remote Traffic Management Center

An EIA-232 or optional Ethernet port provides access by a local PC or remote TMC running ECcom Windows based software for status, event log review, and archival.

Signal Sequence History Display

Five Signal Sequence History logs stored in nonvolatile memory each graphically display 30 seconds of signal status prior to each fault event. The resulting display eases diagnosing of intermittent and transient faults by viewing the exact signal states that the monitor sensed.

Configuration Monitor

Detects potentially unsafe programming changes and Red Interface cable problems.

Flashing Yellow Arrow PPLT

Three operational modes are built-in for support of the MUTCD Flashing Yellow Arrow PPLT operation depending on the number of load switches in the cabinet.

Model Options

Model	Channal Capacity	Port
2010ECL	16	EIA-232 Port
2010ECLip	16	Ethernet Port

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