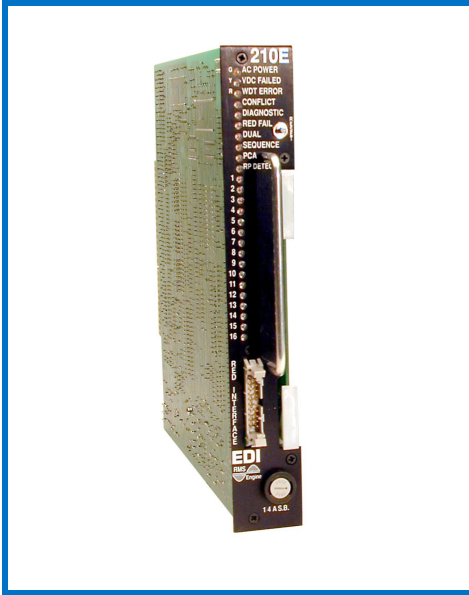


# 210E Series

## Type 170 / 179 Signal Monitor



The EDI 210E Series Signal Monitor is designed to upgrade the capabilities of the basic 210 monitor used in Type 170 / 179 Output Files. The unit is fully compatible with the requirements of the 170 and 179 Controller Units. The 210E Signal Monitor utilizes enhanced monitoring functions to increase cabinet fault coverage, providing additional assurance that cabinet equipment malfunctions will be detected and diagnosed properly.

### Model Options:

210E	16 channel capability for 170 and 179 compatibility
2010	16 channel capability for 170, 179, and 2070 compatibility

## 210E FEATURES

- Enhanced 210 Monitoring Functions:** The 210E meets or exceeds the requirements of the Caltrans Traffic Signal Control Equipment Specifications of January 1989. Basic fault coverage includes Conflict, 24Vdc, CU Watchdog, and AC Line monitoring.
- Red Monitoring:** Red Fail Monitoring senses the absence of signal on all three inputs of a channel and requires the output file to be wired for Red signals. Two Special Function inputs disable Red Fail Monitoring to accommodate RR preempt or TOD flash sequences.
- Dual Indication Monitoring:** GYR Dual Indication Monitoring detects simultaneous active signals on a channel. GY Dual Indication monitoring provides Dual Indication sensing capabilities for 5 section signal heads.
- Sequence Monitoring:** Sequence Monitoring ensures sequencing of signals with a proper minimum yellow clearance interval (Short Yellow or Absence of Yellow).
- 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.
- Diagnostic Displays:** Two Diagnostic display modes show active colors of channels for both real-time intersection status and latched fault status of the current and two previous fault events.
- AC Line Monitoring:** AC Line Monitoring detects and responds to low AC Line voltages as well as interruptions.
- Configuration Monitor:** Detects potentially unsafe programming changes and Red Interface cable problems.
- Flashing Yellow Arrow PPLT:** Two 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.
- Option Programming:** Programmable options include:
- ✓ Watchdog Fault Timing
  - ✓ Configuration Change Fault Enable
  - ✓ Watchdog Latch Enable
  - ✓ AC Line Brownout/Restore Levels
  - ✓ GY Dual Indication Enable
  - ✓ Red Fail Fault Time
  - ✓ Dual Indication Fault Time
  - ✓ Minimum Flash Enable
  - ✓ Special Function Input Polarity
  - ✓ Red Interface Cable Check Enable

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