



AMU-214

ITS Auxillary Monitor Unit

INTRODUCING A NEW STANDARD OF SAFETY AND DIAGNOSTIC CAPABILITIES

The EDI AMU-214 Auxiliary Monitor Unit is intended to operate with the CMU-212 Cabinet Monitor Unit to form a compact and modular cabinet malfunction management system for the ITS Cabinet. The AMU-214 provides the voltage and current data acquisition function of the cabinet monitoring system. Up to four AMU-214 units can be installed with each CMU-212 Cabinet Monitor Unit, providing the flexibility of ten (10) different cabinet configurations.

The AMU-214 meets all requirements of the ASHTO/ITE/NEMA Intelligent Transportation System (ITS) Standard Specification for Roadside Cabinets Version 01.02.15, as well as the Caltrans TEES, August 2002 requirements.

AMU-214 STANDARD ITS FEATURES

- Dual Mode Configuration:** Capable of measuring true RMS voltage and total RMS load current for 14 load switch channels (42 AC inputs) in a 14 position Output File, or 6 load switch channels (18 AC inputs) in a 6 position Output File.
- AMU Programming:** Output File address jumpers program the AMU-214 configuration. No other user setup is required.
- Standardized Communications:** The AMU-214 uses real-time standardized high speed communications with the CMU-212 to send a complete RMS voltage and current measurement set every 20 milliseconds.
- EDI RMS Engine:** A DSP microprocessor converts ac input measurements to True RMS voltages and currents, virtually eliminating false sensing due to changes in frequency, phase, or sine wave distortion.
- Load Current Monitoring:** Load current measurements are taken for each load switch channel (R+Y+G) using four scales of load current monitoring precision. Using 1, 2, 3, or 4 primary turns on the Output File sensing transformer allows the load current accuracy to be tailored to the application such as use with LED signal heads.

AMU-214 ENHANCED ITS FEATURES

- Internal Diagnostics:** A complete set of internal diagnostic self-tests are run continuously to help ensure the measurement system and all critical components of the AMU-214 are operating correctly.
- Address Reporting:** A front panel LED indicator can be used to report the current Output File address assignment of the AMU-214 for cabinet configuration verification.
- Off-line Power Supply:** A simple but robust off-line power supply design eliminates bulky transformers and reduces cost and complexity.
- Field Signal Interface:** Discrete ½ watt resistors along with integrated transient suppressors ensure a highly reliable and rugged interface to the field signals, proven over the years by thousands of EDI signal monitors.

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