

MMU16Eip-LSU

NEMA MALFUNCTION MANAGEMENT UNIT WITH LOAD SENSOR UNIT (LSU)



The EDI MMU16Eip-LSU meets all applicable specifications of NEMA Standard TS2-2016, Section 4 (MMU), and also provides a signal load current measuring and reporting capability. The MMU16Eip-LSU interfaces to a separate EDI Load Sensing Unit (LSU) to measure field signal load current in real time and then provide a historical reporting function.

The unit also upgrades the communications interface to an Ethernet interface for the EDI ECcom software interface.

MMU16Eip-LSU ENHANCED FEATURES

- Nema TS2-2016 Standard:** The MMU-16E meets all specifications of the Nema Standard TS2-2016 while maintaining downward compatibility with existing Nema TS1-1989 Traffic Control Assemblies.
- Standardized Communications:** Type 16 real time SDLC communications with the Controller Unit exchanges field input status, Controller Unit output status, fault status, MMU programming, and time and date, along with a watchdog function for Port 1 activity.
- Full Intersection Display:** The Full Intersection Display uses Red, Yellow, and Green LEDs to show active colors of all channel inputs simultaneously for both real-time intersection status and latched fault status.
- Event Logging:** A time-stamped nonvolatile event log records the complete intersection status as well as AC Line events, configuration changes, monitor resets, temperature and true RMS voltages.
- Dual Indication Monitoring:** Detects simultaneous active Green and Yellow, Green and Red, or Yellow and Red inputs on the same channel (Type 12 mode includes Walk).
- Field Check Monitoring:** In Type 16 mode, the MMU-16E analyzes the CU output commands and field status to isolate whether the problem was caused by a Controller Unit malfunction, or a failure in the load bay or field wiring, and then identifies the faulty channel and input directly.
- Signal Sequence History Logs:** The five Signal Sequence History logs stored in nonvolatile memory graphically display up to 30 seconds of signal status prior to each fault event.
- LEDguard®:** This EDI innovative signal thresholding technique can be used to increase the level of monitoring protection when using LED based signal heads.
- 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.
- ECcom PC Software:** Access to the MMU-16E data is provided by the industry standard EDI ECcom Windows based software for status, event log retrieval, configuration, and data archival.
- Field Signal Load Current Measurements:** The LSU device provides a non-intrusive method for measuring AC load currents. Field wires are inserted through the transformer holes in the unit for each RYG signal to be monitored making retrofits easily done.

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