



# SSMLE-FYAc SERIES

## Enhanced NEMA Signal Monitor Units For Protected/Permissive Signal Displays Utilizing Flashing Yellow Arrows

The SSMLE-FYAc series signal monitors provide the highest level of fault monitoring for agencies utilizing the four section FYA movement outlined by the NCHRP Research Project 3-54 on Protective/Permissive signal displays with Flashing Yellow Arrows.

The FYAc approach provides 4 thru phases, 4 FYA approaches, and 4 pedestrian phases in a twelve position back panel. (Also see the SSMLE-FYA model).

The SSMLE-FYAc series signal monitor includes both six channel (SSM6LE-FYAc) and twelve channel (SSM12LE-FYAc) configurations.

### SSMLE-FYAc Standard NEMA TS-1 Features

- NEMA TS1 Standard:** The SSMLE-FYAc series meets all specifications of NEMA Standard TS-1 1989 R2000, Part 6. Basic fault coverage includes Conflict, Red Fail, CVM, 24V-I and 24V-II. Dual Indication Monitoring detects simultaneous active signals on a channel. Clearance Monitoring assures proper sequencing of signals and a minimum yellow clearance interval. AC Line Monitoring responds to low AC Line voltages as well as interruptions.
- Flashing Yellow Arrow:** The SSM12LE-FYAc unit configures channels 9, 10, 11, and 12 to monitor the Protected Green Arrow phase, and the odd numbered channels 1, 3, 5, and 7 to monitor the associated Red, Yellow, and Flashing Yellow Overlap phases.
- The SSM6LE-FYAc unit configures channels 5 and 6 to monitor the Protected Green Arrow phase, and the odd numbered channels 1 and 3 to monitor the associated Red, Yellow, and Flashing Yellow Overlap phases.
- Channel pairs are enabled for the Flashing Yellow Arrow monitoring function by front panel switches. If the FYAc function is not enabled for a channel pair, the associated channels operate normally.

### SSMLE-FYAc Enhanced Features

- Full Intersection Display:** High contrast, large area Liquid Crystal Displays (LCD) show full intersection status with an active Red, Yellow, Green, and Walk indicator for each channel. Separate indicators identify channels involved in the fault.
- Event Logging:** The SSMLE-FYAc series maintains a nonvolatile event log recording the complete intersection status as well as previous fault events, AC Line events, configuration changes, monitor resets, cabinet temperature and true RMS voltages for all AC inputs. A real time clock time stamps each log event with time and date.
- Signal Sequence:** The Signal Sequence History Log stored in nonvolatile memory graphically displays up to 30 seconds of signal status prior to the fault trigger event with 50ms resolution to ease diagnosing of intermittent and transient faults.
- 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.
- Configuration Options:** Front panel options include GY Dual indication, +24V and CVM Latching, Red Fail Walk Disable, External Watchdog input, and CVM Log Disable.
- ECcom PC Software:** Access by a computer is provided by EDI ECcom Windows based software for status, event log review and archival, using the standard EIA-232 front panel port.

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SSMLE-FYAc Series Catalog Sheet

Designed, Manufactured and Tested in the United States of America

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