SSLC-106M

NEMA Smart Street Light Controller Node

NEMA 5/7 PIN | LTE (FDD/TDD) | Remote ON/OFF | 0-10V Dimming | 16A Relay

Power Meter | 4KV Surge | IP65 Housing | Fault Alerts | BECentral®

Ideal Use Cases

- City and Municipal Street Lighting
- Highways and Road Corridors
- Parking Lots and Campuses
- Community and Civic Spaces
- Utility and Infrastructure Sites
- Parks, Trails, and Recreational Areas
- Commercial and Industrial Facilities

The BEC SSLC-106M is an LTE-enabled NEMA smart street light controller node that brings connected control, monitoring, and visibility to outdoor lighting infrastructure. By turning compatible LED luminaires into remotely managed assets, it helps cities, utilities, campuses, and commercial operators reduce manual inspections, improve outage response, support energy-conscious lighting, and simplify maintenance.

Engineered for rapid plug-and-play deployment, the SSLC-106M provides a practical path to modernize street lighting without replacing compatible fixtures. Its rugged outdoor design helps operators improve visibility, streamline maintenance, and extend centralized control across distributed lighting networks.



Simple NEMA Twist-Lock Deployment

The SSLC-106M is designed for compatible LED luminaires with standard NEMA receptacles, allowing field teams to add smart lighting control without replacing the fixture. The controller installs with a simple insert-and-rotate connection for faster deployment, maintenance, and replacement.

- Standard NEMA 5-pin/7-pin interface
- Plug-and-play installation on compatible LED luminaires
- Designed for ANSI C136.41 NEMA twist-lock applications

Fixture-Level Control and Dimming

The SSLC-106M gives operators remote control of individual outdoor lighting assets. A built-in 16A relay supports ON/OFF control, while the 0–10V dimming interface enables compatible LED drivers to be adjusted based on schedules, site requirements, or operating conditions.

- Remote ON/OFF control
- 0–10V dimming output
- Timer-based scheduled operation

Fault Reporting and Energy Visibility

Integrated monitoring helps lighting operators identify fixture and electrical issues without relying only on manual inspections. The SSLC-106M supports automatic fault reporting and provides visibility into key electrical parameters including voltage, current, power, and energy usage.

- Lamp failure and power failure detection
- Under-voltage, over-voltage, and over-current alerts
- Voltage, current, power, and energy monitoring

Outdoor Cellular Connectivity

Built for distributed outdoor lighting networks, the SSLC-106M uses cellular connectivity to support remote control and monitoring across streets, roadways, parking areas, campuses, utility sites, and commercial facilities. Its compact, outdoor-rated design is suited for harsh field environments.

- LTE FDD / LTE TDD support, module dependent
- IP65 waterproof housing
- -40°C to +70°C operating temperature

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Use Case Deployment Examples



Features & Specifications

NEMA Installation

- Standard NEMA 5-pin / 7-pin interface
- Plug-and-play twist-lock installation
- Compatible with NEMA-compliant LED luminaires
- Designed for ANSI C136.41 applications
- No screws required for controller installation
- Designed for single-lamp LED driver applications

Control & Automation

- Remote ON/OFF control
- Built-in 1-channel 250V/16A relay
- 0–10V dimming output
- Timer-based scheduled control
- Optional GPS-based astro clock control
- Energy record reset support
- Photocell with auto control via lux values

Fault Monitoring

- Automatic fault reporting
- Manual fault query support
- Lamp failure detection
- Power failure detection
- Under-voltage / over-voltage detection
- Over-current detection
- Integrated tilt sensor for pole knockdown detection and alerts.
- Optional high-temperature alarm

Eletrical Input / Ouput

- Input voltage: 120–480 VAC standard
- Frequency: 50–60 Hz
- Input current: 0–4A
- Static power: <1.7W
- Output voltage follows input voltage
- Output current: 0–4A
- Max load: ≤4000W
- Dimming output: 0–10V / 10mA

Data & Energy Monitoring

- Voltage detection: 120–480 VAC
- Current detection: 0–2A
- Data accuracy: ≤3%
- Active power calculation
- Power factor calculation
- Energy consumption recording
- Real-time electrical status monitoring

Cellular Connectivity

- LTE-M / NB-IoT support
- GSM support
- Supported LTE bands: 1, 2, 3, 4, 5, 8,12, 13, 18, 19, 20, 25, 26, 27, 28, 66, 71, 85
- Supports Anterix B8_US 900 MHz
- GSM bands: 2, 3, 5, 8

GNSS & Status Indicators

- GPS, GLONASS, BeiDou, Galileo, QZSS
- Network status LED indicator
- Solid red: no network
- Blinking red: registering
- Solid green: connected

Physical & Environmental

- IP65 waterproof housing
- IK10 impact protection
- Operating temperature: -40°C to +70°C
- Humidity: <95%
- Diameter: 84 mm
- Height: 99 mm
- Weight: 0.3 kg

Protection & Mainenance

- 4KV lightning surge protection
- OTA firmware upgrade support
- Built-in temperature sensor
- Designed for outdoor lighting environments
- Professional installation recommended
- Device must be fully rotated to ensure NEMA connection

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