

## PLS-NM7

Power Line Network Node for simple drop in installation into ANSI C136.41 receptacles on street lights



### Key Features

- Installs on the existing ANSI C136.41 twist lock receptacles present on most street lights that are commonly used for photoelectric control
- Lighting control, 1-10V dimming and energy monitoring up to 4KVA without the use of any new wired or wireless infrastructure
- Works over long distances over power lines and in areas where installing regular wired or wireless networks would be cost prohibitive or insecure.
- Industry leading 256-bit Elliptic Curve Cryptographic security, along with the isolation from the internet, provides a very secure, private control and communications network

## Applications—NM7

### Load control, Power monitoring, Dimming over Power lines

Network	<ul style="list-style-type: none"> <li>• G3-PLC (ITU-T G.9903) standards based and certified.</li> <li>• OFDM based IPV6 Auto Connect / Auto Healing Mesh network</li> <li>• 98.4 - 121.9KHz CENELEC Band</li> <li>• 40Kbps minimum data rate</li> <li>• Up to 3-mile range between nodes,</li> <li>• 255 nodes per sub-net with one DC1 (data concentrator)</li> <li>• PLS-DC can connect directly to the SCADA system via local Ethernet</li> <li>• Alternative Cellular or WIFI connection supported by PLS-DC</li> </ul>
Security	<ul style="list-style-type: none"> <li>• 256-bit Elliptic Curve Cryptographic security between nodes and data concentrator</li> <li>• Secure TLS/SSL based connection between data concentrator and operator terminal (SCADA)</li> <li>• Biometric and two factor authentications at the operator terminal</li> </ul>
Power	<ul style="list-style-type: none"> <li>• 80 – 305VAC, 50-60Hz, Single phase</li> <li>• ANSI C136.37 surge requirements compliant</li> <li>• Fully protected against transients and brownouts with EN55022 Class B isolation</li> </ul>
Load Control & Metering	<ul style="list-style-type: none"> <li>• IEC 600335-1 compliant latching relay</li> <li>• Nominal switching capacity: 16A, 277VAC, inrush capable</li> <li>• Max switching power (resistive load): 4.432KVA</li> <li>• 0.1% accurate energy metering</li> <li>• Active power, true RMS current, RMS voltage, Line frequency and power factor metering</li> </ul>
Lighting Control	<ul style="list-style-type: none"> <li>• 0/1-10V analog dimming output</li> <li>• Built-in energy metering of connected loads</li> </ul>
Mechanical	<ul style="list-style-type: none"> <li>• ANSI C136.41 receptacle mount</li> <li>• Fully sealed 95mm tall x 80mm diameter enclosure</li> <li>• NEMA4x, IP65 Molded Fiberglass polyester enclosure</li> <li>• -40°C to +75°C Operating temperature</li> </ul>