

ENLIGHT

SMART CITY DEVICES



SCD 240 INTERNAL NODE

INTERNAL NODE FEATURES

- The SCD 240 Smart Photocell is a wireless outdoor luminaire controller with a very compact size, fitting inside virtually any street or decorative lighting fixture
- Enables remote control and monitoring at every light point, for all lamp technologies
- With the onboard Silver Spring communications card, it provides a robust and secure full, two-way wireless communications in the open IPv6 Silver Spring network, between all compatible Smart City Devices and the open Streetlight.Vision Central Management Software
- Up to 70% total energy and maintenance savings
- Functional features rich
- Equipped with NFC interface, analog and digital inputs
- New easy and low cost installation process
- Leverage the street lighting networks to control and collect data from many Smart City Devices such as sensors, advance meters, distributed automation elements and many others
- Accurate energy and electrical parameters metering suitable for supporting utility billing
- Automatic identification of all lamp failures and reduced onsite maintenance
- Pole tilt sensor ready
- Increased lighting quality and security

FUNCTIONAL SPECIFICATIONS

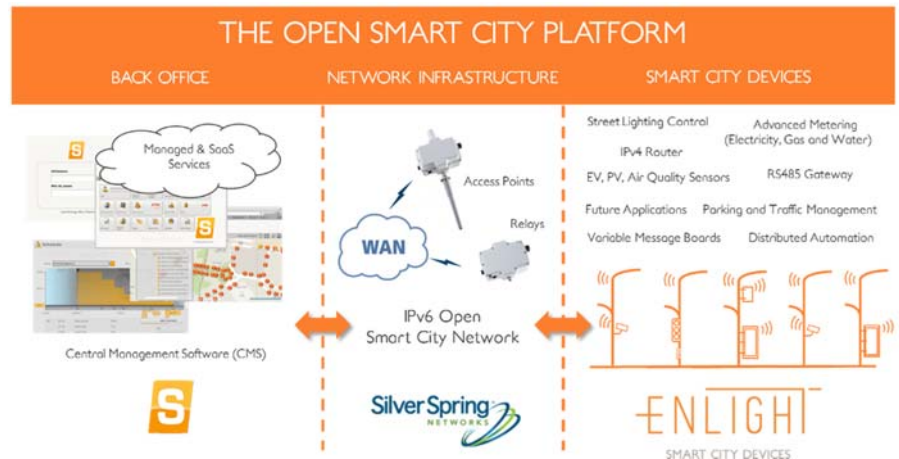
- ✓ suitable for LED/HID streetlights
- ✓ very compact size to fit inside virtually any luminaire
- ✓ on/off control and stepless dimming using 0-10V or DALI output interface
- ✓ connects to an open and standardized fast IPv6 Silver Spring network
- ✓ digital input for motion-based dynamic lighting, tilt sensor or other external sensor
- ✓ analog voltage input for 0-10V sensor connection
- ✓ future proof over-the-air firmware upgrades
- ✓ powerful energy processor for accurate luminaire measurement (energy, power, power factor, voltage, current, power quality, running hours...)
- ✓ line or load side measurement
- ✓ lighting error detection (cycling lamp, blocked relay, open circuit, lamp failure...)
- ✓ controller relay zero crossing switching for longevity and reduced interference
- ✓ easy onsite configuration and luminaire auto-test and diagnose feature using NFC interface and the mobile Streetlight.Vision app

CONNECTED WITH Silver Spring NETWORKS

READY FOR S

PROVIDING THE BEST SMART CITY SOLUTION IN THE MARKET

Integrating the proven Silver Spring IPv6 open networking technology (with over 20 million connected devices) and the de-facto open standard Streetlight.Vision Central Management Software (managing devices in more than 500 cities worldwide), the Enlight SCD 240 Internal Node enables an easy and fast deployment of hundreds of thousands of individually managed light points on the street lighting networks.



TECHNICAL SPECIFICATIONS

Operating Voltage	<ul style="list-style-type: none"> Voltage range 85–264VAC (90-305VAC on request) Frequency range 47–63Hz
Power Consumption	<ul style="list-style-type: none"> Average < 3W, Peak < 7W (as required by ANSI C136.48)
Output Control	<ul style="list-style-type: none"> Switched internal relay for on/off control 15A rated load 0-10V or DALI dimming control
Digital Input Analog Input	<ul style="list-style-type: none"> Max. 24VDC, 20mA 0-10VDC
Metering	<ul style="list-style-type: none"> Line or load side as an option Range: 0–10000W, 0–630V, 0–17,5A Accuracy: 1% / 0,5% (on request) Metered parameters: Voltage, Current, Power, Frequency, Energy, Power Factor, Lamp Burning Hours, Temperature, Lamp Brightness Level Power Quality Monitoring: Voltage Surges/Sags
Failures Identification	<ul style="list-style-type: none"> Open Circuit, Blocked Relay, Lamp Failure, Overcurrent, Overvoltage, Overtemperature, Pole Tilt, Cycling Lamp, Lamp Power too High/Low, Lamp Current too High/Low, Low Power Factor
EMC	<ul style="list-style-type: none"> FCC Part 15, Subpart B / ICES-003
Safety	<ul style="list-style-type: none"> IEC60950-1, IEC60598-1, IEC60598-2-1, IEC61347-1, IEC61347-2-13
Environmental	<ul style="list-style-type: none"> Operating temperature range: -40 °C to +70 °C Humidity: 95% RH, non-condensing Storage Temperature: -40 °C to +85 °C
Physical	<ul style="list-style-type: none"> Weight: 250 g IP rating: IP 66 Dimensions: 85 x 80 x 55 mm (W x L x H)
Silver Spring Networking	<ul style="list-style-type: none"> Radio-Frequency: <ul style="list-style-type: none"> 865-880 MHz – Europe 902-928 MHz – North America 902-907 MHz, 915-928 MHz - Brazil 915-928 MHz – Australia 921,5-928 MHz - New Zealand Approvals: ETSI EN 300 220-1, FCC 15.247, Industry Canada RSS-210, ANATEL, AS 4268/ACMA, NZS 4268/GURL RF Communications: <ul style="list-style-type: none"> Data Rate: up to 300 kbps mesh networking Automatic data routing with self-configuration, auto-healing & redundant uplinks Spreading Technique: FHSS (Frequency Hopping), GFSK Transmit Power: 1 W Emission Designator: 250KF1D Receiver Sensitivity: -98 dBm for 10% PER Protocols/Security: <ul style="list-style-type: none"> Addressing: IPv6 Protocol: IEEE 802.15.4g (WI-SUN Compliant) Security: Secure Hash Algorithm 256-bit (SHA-256) and RAS-1024 or ECC-256 Encryption: Advanced Encryption Standard (AES-128 or AES-256) Authentication: ECDSA & RSA Signatures Key Storage: Secure NVRAM with tamper detection and key erasure
Installation	<ul style="list-style-type: none"> SCD 240 Internal Node can be installed inside a lighting fixture or pole. It possesses an external antenna that has to be routed to the outside of the fixture or pole through a Ø5.50mm hole

Content subject to change without notice.