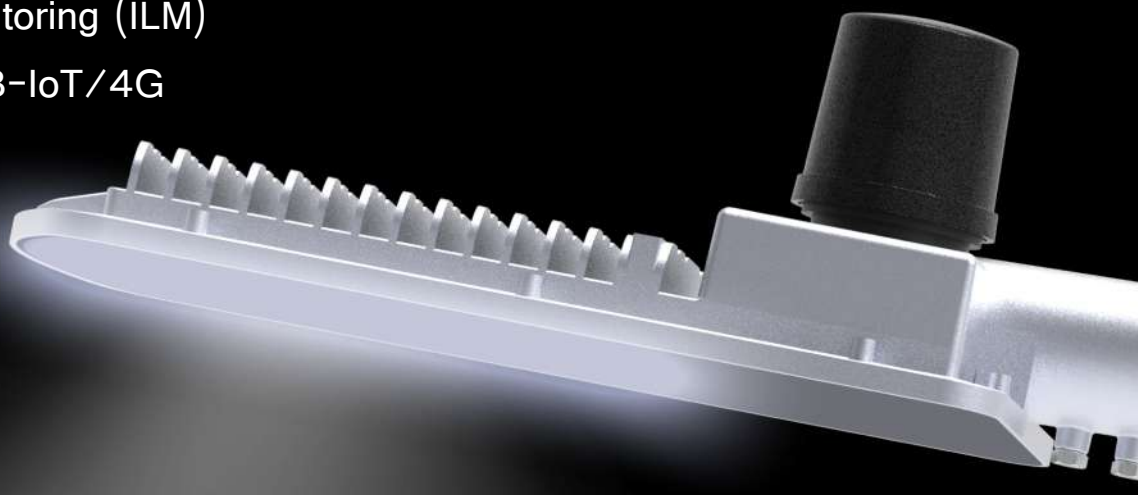
LUMINODE

Individual Lamp Monitoring (ILM)

RF-mesh/GPRS/NB-IoT/4G

Inbuilt GPS



schnell

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CERTIFIED ISO 9001:2015 COMPANY

MAKE IN INDIA

WPC

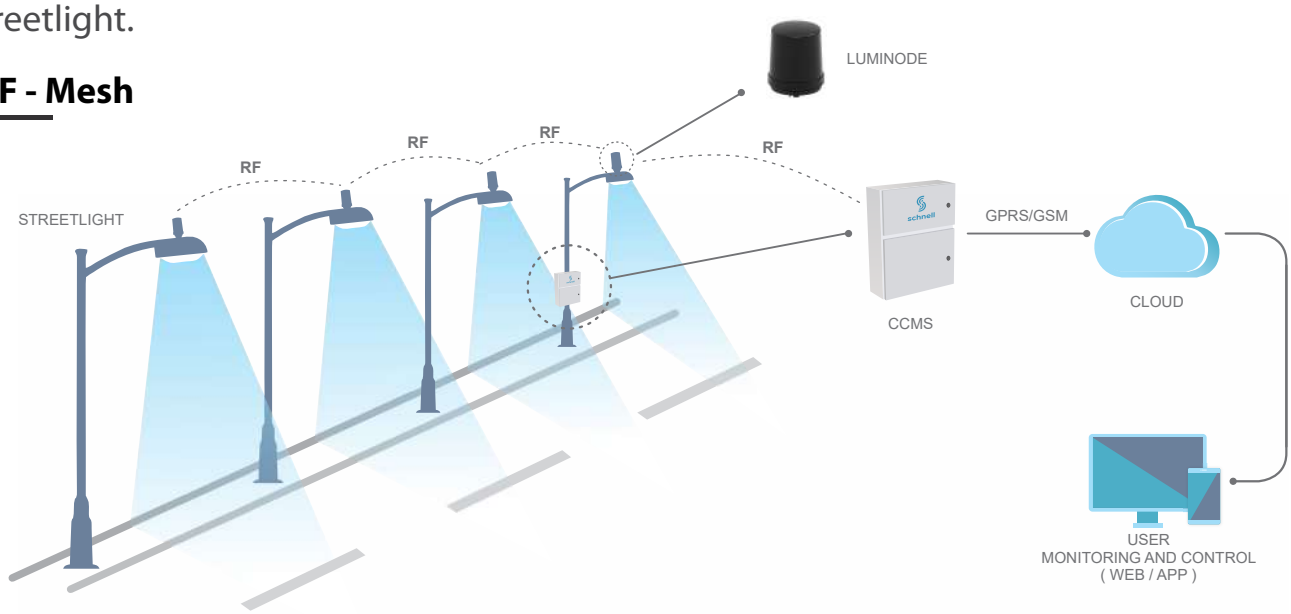
IP65

ANSI NEMA

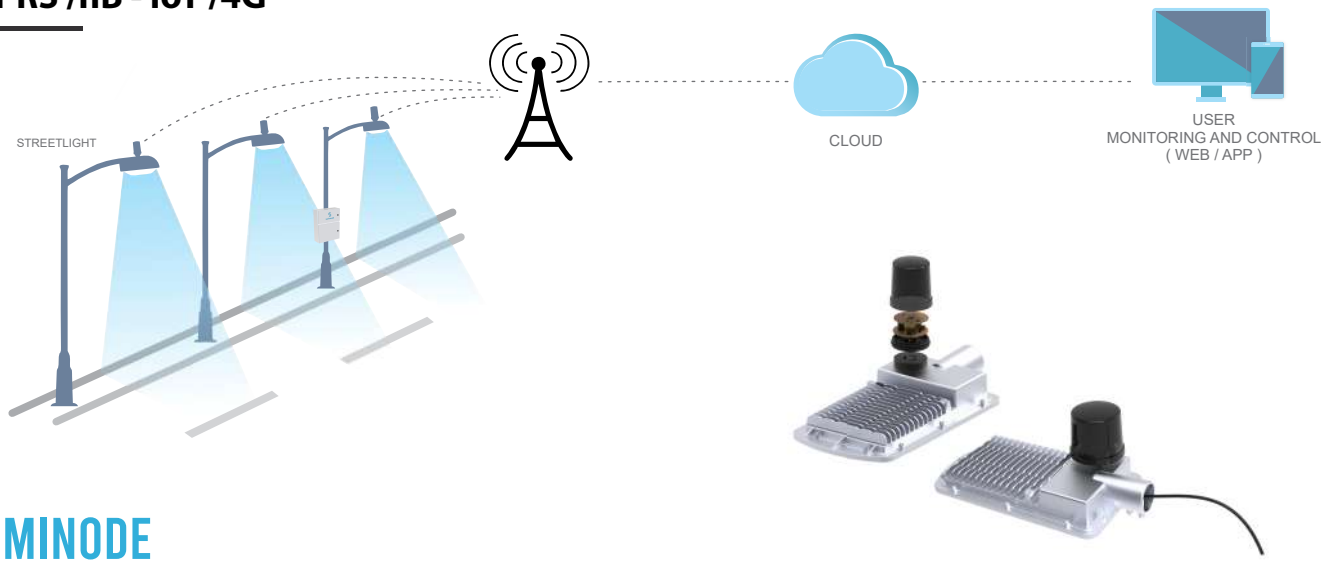
SMART STREET LIGHTING

Schnell SMART system for street lighting is designed to gain complete control over the operation, monitoring and sophisticated maintenance of each and every individual streetlight.

RF - Mesh



GPRS /nB - IoT /4G

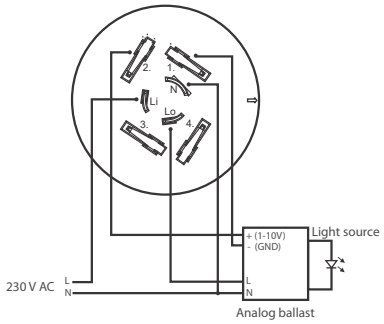


LUMINODE

LumiNode is a device that is attached to the lamp and includes RF Sub-1GHz /GPRS /NB-IoT /4G based communication for accessing and controlling individual lamps. These nodes connect and interact with the Centralized control unit & Server for monitoring and controlling the lamps.

SALIENT FEATURES

- Easy plug-n-play installation
- Wide input operating voltage with in-built surge protection
- In-built battery
- In-built GPS
- Records and communicates lamp failure, power failure, live lamp status and other electrical parameters
- Control & Monitor through Web & Mobile applications
- OTA (Over-The-Air) firmware update



Connection 1 - 10 V (LED driver)

Description of wiring contacts:

1. Dim - (GND)
2. Dim +(1 - 10 V)
3. DIn +
4. DIn -

Li - Line input
N - Neutral
Lo - Line output

ADDITIONAL / OPTIONAL FEATURES

- Photocell mode
- Dimming
- Metering
- Additional Sensor connections

ORDERING CODE

SLNN XXXX YYY

CODE	Communication technology
SGIN	Sub GHz-RF Mesh
NBOT	NB-IoT
LT4G	4G
GPRS	GPRS

CODE	Parameters measured	Features 1	Features 2	NEMA type
ECO	Voltage, Current, Power	ON/OFF	GPS, Battery	3 pin
STD	Voltage, Current, Power	ON/OFF/DIM	GPS, Battery	5 pin
PRO	Voltage, Current, Power, Energy	ON/OFF/DIM/METER	GPS, Battery	5 pin
PRP	Voltage, Current, Power, Energy	ON/OFF/DIM/METER	GPS, Battery, Sensor inputs	7 pin

Note : Reference ordering code for 4G , PRP model - SLNN LT4G PRP

TECHNICAL SPECIFICATIONS

Operating voltage and frequency	:	85 VAC to 440 VAC, 50Hz/60Hz
Surge protection	:	Standard: 6kV/3kA | Optional: 10kV / Imax:10kA, In:5kA
Lamp type	:	LED
Maximum load handling capacity	:	500W
Connection type	:	ANSI C136.41 NEMA type - 3/5/7 Pin
Measurement accuracy	:	Standard: Class 2.0 | Optional: Class 1.0
Configurable parameters*	:	Electrical and functional parameters
Data security	:	AES-128 | Link Layer Security
Over-The-Air Firmware update	:	Available
GPS	:	Available (Inbuilt)
Real time synchronization	:	Through Network / GPS
Battery (Power failure detection)	:	Available (15 min)
Internal storage	:	25 events per day (Can be increased in firmware upto 50 events)
Nominal power consumption	:	<2 VA
Ingress Protection Rating	:	IP65
Operating Temperature Range	:	-10 ° to 55 ° C
Dimensions	:	Height - 105mm | Diameter - 84mm
Weight	:	210 grams
Certifications	:	WPC | Type test | IP65 | Surge testing IEC - 61000-4-5
Threshold configuation*	:	Over Voltage | Under Voltage | Over Current | Under Current
Parameters measured	:	Voltage | Current | Active power | Power factor | Energy consumption | Lamp burning hours
Faults / Alarms	:	Over Voltage | Under Voltage | Over Current | Under Current | Lamp failure | Low PF
Dimming control interface	:	1-10V Analog Dimming
Dimming range	:	10% to 100%
Dimming steps	:	Stepless
Dimming configuation*	:	Predefined schedule (can be configured remotely)
External sensor interface (optional)	:	2 Pin interface to Digital Movement Sensor (ANSI C136.41 NEMA 7 Pin Variant)
Network interface - RF	:	Communication - 865/868/915 MHz Frequency Bands | Hardware: IEEE 802.15.4g PHY | Transmit Power: +12.5 dBm | Receiver Sensitivity: -110 dBm | Ipv6 with Automatic Route discovery and self-healing mesh
Data transfer rates - RF	:	50 kbps
Data transfer rates - GPRS/NB - IoT/4G	:	85.6 kbps/150kbps/8.6Mbps

* Electrical threshold parameters like Voltage (min/max), Current (min/max), Power (min/max), Minimum load value, No load value can be configued remotely from the application server. Also functional parameters like Time schedules, Photocell threshold level (optional), Lamp brightness levels, Operating mode (Auto/Manual/Test), Publish interval time, Web server URL, Port & Timestamp.