Wireless Street Light Control Unit

AXESS-RF

EXTERNAL

PHOTOCELL

networking
your city

COMPATIBLE WITH
Silver Spring NETWORKS

Lumnex

MAIN FEATURES

PHOTOCELL LCU

- **Excellent connectivity** to the SSN RF network mesh (mounted on top of the luminary)
- **Configurable RF bands** to comply with the national requirements of the local available RF bands (ISM autorisation)
- **Extensive reporting:** lamp burning hours, failure to ignite, lamp voltage and current, ballast/driver temperature, RF transmission status, photocell status...
- **15A Triac assisted relay for load ON/OFF switching**
  - Zero Voltage Switch-On (low inrush current)
  - Zero Current Switch-Off (no inductive arcing)
- **Low standby power:** less than 1.5W on average
- **DALI or 0-10V light control interface versions**
- **Dry contact input for additional sensors**
- **Energy Meter Accuracy 2% @ Imax 8A** also providing readings of Power Factor, RMS Voltage, Current, etc.
- **LED impulse power metering mode** (imp/kWh)
- **Robust**: IP65, rugged mechanical design, UV resistant, Class II, surge protection up to 10kV/5kA
  - DALI, 0-10V, Aux 14V & dry contact input DInp with 4kVac isolation
  - 20kV/10kA surge protection on demand
- **Life span of over 10 years** @ Tc=70°C operating temperature

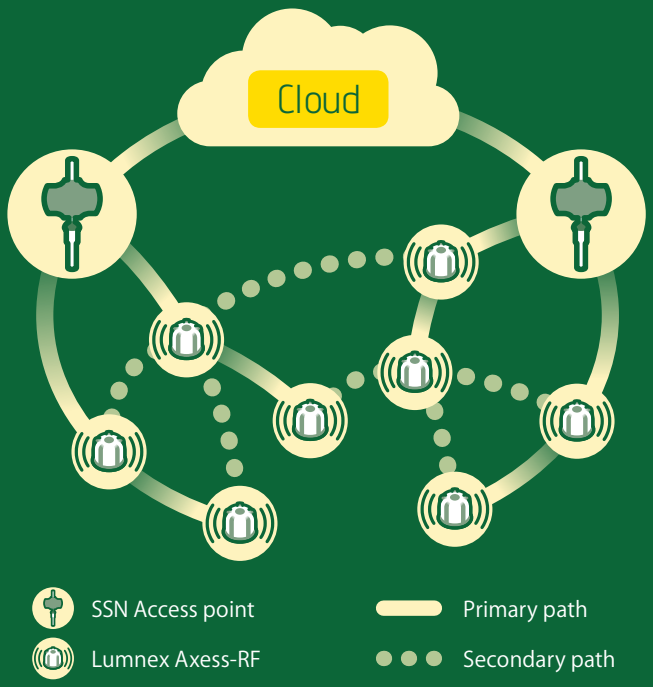
NEMA socket not included >

AND MORE...

- **Dynamic Lighting** and presence detection
- **Multiballast Driver**: can control multiple ballasts / LED drivers
- **Over The Air (OTA)** software updates
- **Tropical hard versions available:** 20kV/10kA surge protection, protection of the sealing by rapid pressure equalization through an integrated moisture and dust repulsing vent
- **RAL 7001 Silver grey**, other colors on demand
- **Standard warranty: 5 years** (conditions apply)

- **SSN is the world leader for multi-application standards-based outdoor networks** for critical infrastructure with more than 25 Million devices deployed
- The SSN RF meshed network provides the **future-proof RF network for connected city services**:
  - **application and link security** (AES encription, full PKI etc.)
  - **self configuring, auto-healing data** routing with redundant paths and uplinks
  - **multitude of network protocols** implemented and supported
- **The Applicable RF band depends on the national authorities' frequency allocation policy**:

Frequency	max Emission	Sensitivity	Baud rate
868 MHz	27 dBmW	-102 dBmW	100 kb/s
2,4 GHz	24 dBmW	-98 dBmW	500 kb/s
870-876 MHz	27 dBmW	-102 dBmW	100 kb/s

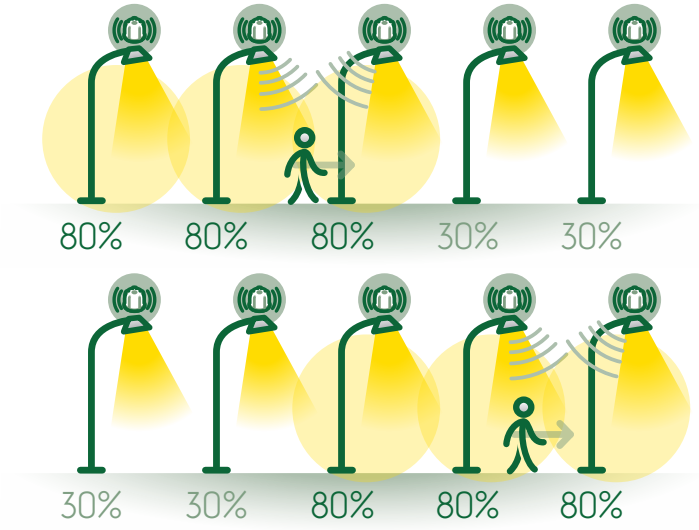


- **Network protocols :** IPv4, IPv6, DTLS, UDP, TCP, SNMPv3, IPSEC, PKI norme X.509, L3/L4 firewall

FUNCTIONAL OPTIONS

DYNAMIC LIGHTING

«Follow-me» system

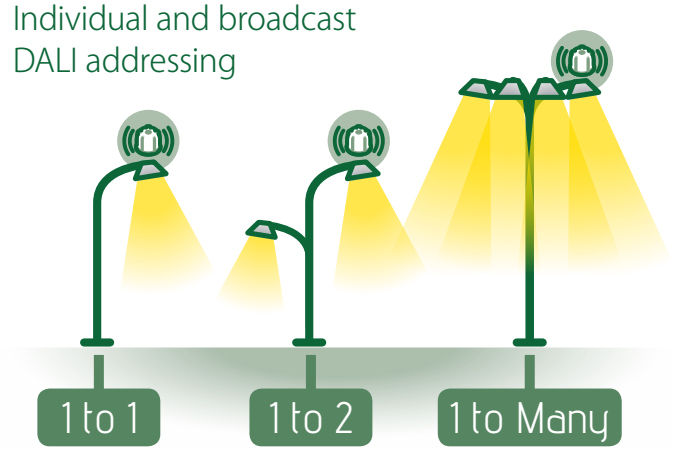


Best compromise between energy savings and lighting comfort. **Detection of a pedestrian, cyclist or car by a sensor** (IR, Radar) connected to the Axess-RF triggers a temporary increment of the lighting level of a group of lamps.

The Axess-RF addresses the concerned remote lamps in the meshed network in a direct manner and without having to pass through a central control server, thus ensuring a quick and appropriate reaction of the lamps.

MULTIBALLAST DRIVER

Individual and broadcast DALI addressing



Default 1 to 1 mode: Axess-RF forwards DALI commands to one single lamp and transmits its reports back into the network (e.g. "this lamp doesn't ignite well")

Prepared for 1 to 2 mode: Axess-RF forwards DALI commands to each lamp individually (e.g. "extinction of lamp X") and transmits individual status reports back into the network (e.g. "lamp Y don't ignite well")

Configurable 1 to Many mode (up to 8): AXESS-RF broadcasts collective commands to all lamps (e.g. "all lamps dim 50%") and transmits collective status reports back into the network (e.g. "at least one of all lamps doesn't ignite well")

LUMNEX LIGHT CONTROL™

Powered by Streetlight.Vision (SL.V)

Lumnex Light Control™ software suite provides a management and control platform that integrates a comprehensive set of software modules for lamp commissioning, programming, data collection, alarm analysis, computer aided maintenance, real-time status lecture and command as well as many more support functions.

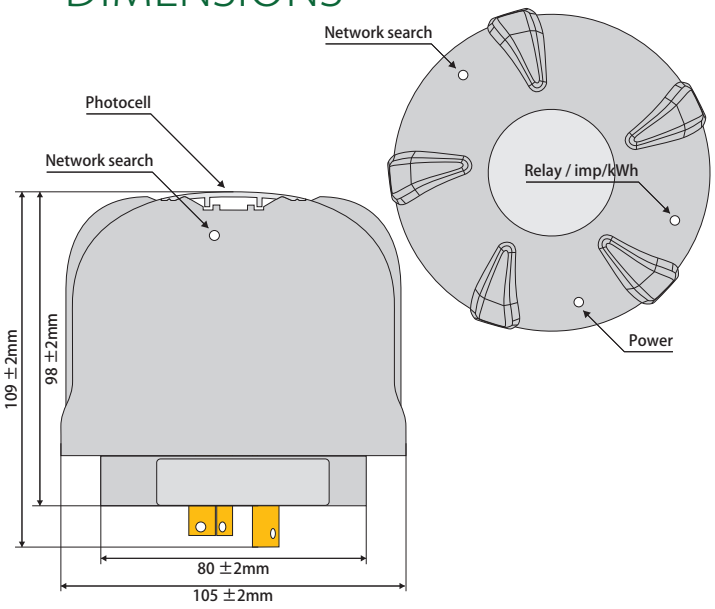
The software package is hosted on Lumnex' servers ("cloud" version) or on customer's server ("local" version). It comprises software modules for a flawless integration of Lumnex' RF-connected products and in combination with the SSN RF network it features functions like "Over The Air" (OTA) software updates for the LCUs.

Lumnex Light Control™ also accepts Lumnex' PLC technology products and other manufacturers' qualified objects ("open system") as to present a single platform for all of your central lighting management requirements.

Lumnex Light control

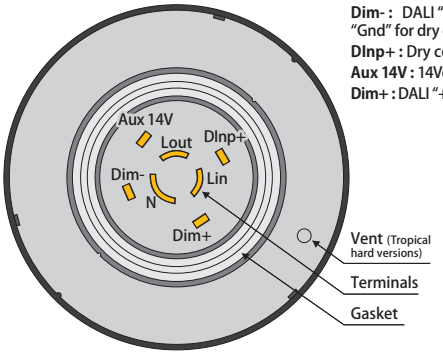
TECHNICAL SPECIFICATIONS

DIMENSIONS

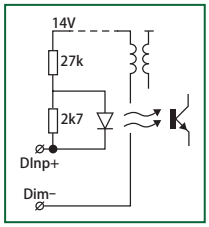


NEMA CONNECTOR

acc. ANSI C136.41-2013 (bottom view)



Dim- : DALI "–" or 0V (0-10V analog dim) and "Gnd" for dry contact input and 14Vdc output
DInp+ : Dry contact input
Aux 14V : 14Vdc / 20mA power supply output
Dim+ : DALI "+" or 10V (0-10V analog dimming)



AC isolated dry contact

BASIC CHARACTERISTICS

Input Voltage	**120 ~ 277Vac** (105-305Vac)
Frequency	**50 ~ 60Hz** (47-63Hz)
Type of Communication with ballast / LED driver	Bidirectional DALI™ or unidirectional 0-10V
Auxiliary Power Supply	14Vdc / 20mA derate by 2mA for each connected DALI device
Operating Temperature Range	-40°C to +85°C
Storage Temperature range	-40°C to +85°C
Humidity	0% to 98%
Weight	0.3 kg

STANDARDS

DALI™ COMMUNICATION
- IEC/EN 62386-101/102/203

EMC / EMI
- EN55022A (CISPR 22)
- EN55015 (CISPR 15)

EMC IMMUNITY
- IEC/EN 61547
- EN 55024 (CISPR 24)

ENVIRONMENTAL
- RoHS, WEEE

SAFETY
- IEC/EN 60950-1 (2nd edition)
- IEC/EN 61347-2-11

RF COMMUNICATION
- ETSI EN 301-489
- ETSI EN 302-208
- IEC/EN 62311

ANSI 136.10/41

CE MARKING

FCC MARKING

ORDERING INFORMATION

ORDER CODE	DESCRIPTION
300_600	AXESS-RF-Ext DALI
300_601	AXESS-RF-Ext 0-10V
300_602	AXESS-RF-Ext Tropical DALI
300_603	AXESS-RF-Ext Tropical 0-10V

For EMEA RF version; for US/CA RF version add 10; for China RF version add 20

AXESS-RF Internal
Wireless Street Light Control Unit

BCEP-RF
Street Cabinet Controller

BCSLT-RF
Traffic Light Synchronizer

SilverSpring NETWORKS

NaaS
for SilverSpring® Networks

Lumnex Light Control
Powered by StreetLight. Vision

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