DATASHEET

Actis Nema

DESCRIPTION

Actis Nema is a smart and autonomous device for the remote control of light points equipped with 1-10 V or DALI-2 protocol drivers. Specially designed for every type of street light, including applications such as residential, urban and road. It is enabled with LoRaWAN communications and compatible with Nema 7 standard socket lamps.

KEY FEATURES

• Relay output and Real time clock for controlling luminaire's ON/OFF and activating the preset regulation profiles.

• Several ON/OFF control: remote, astronomical clock or photocell.

• Available with most used dimming control: DALI-2 protocol and 1-10V signals. DALI-2 protocol, enables data acquisition and point to point control up to 8 luminaires or sensors.

• PCB-mounted temperature sensor.

• Plug-and play installation for luminaires compatible with NEMA 7 standard socket.

• Energy meter included to measure main electrical parameters: voltage, current, energy, power factor, active and reactive power.

• Configurable deviation alarms based on reference measurement thresholds.

• In case of power loss or offline operation, the parameters are stored and sent when online operation is restored.

• Remote firmware updated possible for some network technologies.

• Lamp accurate location through board integrated GPS.

• Accelerometer integrated to indicate the tilt of the controller.

• Analog and digital inputs for data acquisition of external sensors, like presence or activity sensors, traffic counting detector, environmental devices...

• Wireless communication via RF LoRa according to standard LoRaWAN 1.0.2 for several frequency bands: EU868, US915, AU915, AS923, IN865.

TECHNICAL FEATURES

Communications

Version	LoRa EU	LoRa US	LoRa AUS/ ASIA	LoRa India
Frequency band	868 MHz	915 MHz	923 MHz	865 MHz
Power (Tx)	+14 dBm	+19 dBm	+19 dBm	+14 dBm
Receiver sesitivity (Rx)	-137 dBm	-130 dBm	-130 dBm	-137 dBm
Compliance	LoRaWAN 1.0.2			
Antenna	Internal			

Dimming interfaces

DALI-2	12-20.5 VDC, 16 mA max; according to IEC 62386 part 101, 102, 104, 201,203,207
1-10	1-10 VDC, 16 mA max; according to IEC 60929 annex E

Electrical connection and Power supply

Voltage range	100 – 230VAC 50/60Hz
Voltage max	250 VAC
Lamp load	4A
Power consumption	< 1 W

ORDERING CODES

AN-00-LW-EU Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, , LoRaWAN EU868

AN-00-LW-US Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, , LoRaWAN US915

AN-00-LW-AU Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, , LoRaWAN AU915

AN-00-LW-AU Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, , LoRaWAN AS923

AN-00-LW-IN
Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, , LoRaWAN IN865

AN-S0-LW-EU Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, GPS, ACC, MEMORY, LoRaWAN EU868

AN-S0-LW-US Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, GPS, ACC, MEMORY, LoRaWAN US915

AN-S0-LW-AU Actis Plus Nema 7 device, Nema7 socket,relay output,network analyzer, Interface 1-10V&DALI, GPS, ACC, MEMORY, LoRaWAN AU915

AN-S0-LW-AS Actis Plus Nema 7 device, Nema7 socket,relay output, network analyzer,Interface 1-10V&DALI, GPS, ACC, MEMORY, LoRaWAN AS923

AN-S0-LW-IN Actis Plus Nema 7 device, Nema7 socket,relay output,network analyzer, Interface 1-10V&DALI, GPS, ACC, MEMORY, LoRaWAN IN865

AN-0I-LW-EU Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor&DALI-2 bus Powersupply, LoRaWAN EU868

AN-SI-LW-EU Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor Powersupply, GPS, ACC, MEMORY, LoRaWAN EU868

AN-0I-LW-US Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor&DALI-2 bus Powersupply, LoRaWAN US915

AN-SI-LW-US Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor Powersupply, GPS, ACC, MEMORY, LoRaWAN US915

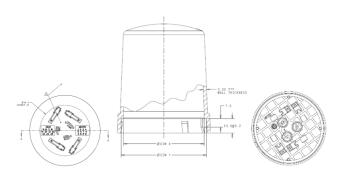**AN-0I-LW-AU** Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor&DALI-2 bus Powersupply, LoRaWAN AU915

AN-SI-LW-AU Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor Powersupply, GPS, ACC, MEMORY, LoRaWAN AU915

AN-0I-LW-AS Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor&DALI-2 bus Powersupply, LoRaWAN AS923

AN-SI-LW-AS Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor Powersupply, GPS, ACC, MEMORY, LoRaWAN AS923

AN-0I-LW-IN Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor&DALI-2 bus Powersupply, LoRaWAN IN865

AN-SI-LW-IN Actis Plus Nema 7 device, Nema7 socket, relay output,analog&digital input, network analyzer,Interface 1-10V&DALI-2,Sensor Powersupply, GPS, ACC, MEMORY, LoRaWAN IN865

Digital Illumination Interface Alliance

TECHNICAL FEATURES

Functional features

Switching function	Astronomic clock, ONWON (Luminaire is ON WHEN power supply is ON), Photocell
Dimming regulation	Remote or Preset (16 available profiles:7 different profiles reserved for each weekday and 9 profiles for 9 specific days)
Alarms	Voltage, current, power and power factor deviations
Accelerometer	Integrated
GPS	Compatible with: GPS, GLONASS, BeiDou/Compass
Storage	More than 1k memory records in case of communications failure

Network analyzer features

Measurements	Voltage, current, energy, power factor, active and reactive power
Accuracy	<0.02%

Environmental and Operating conditions

Operating temperature range	-20° to 60°
Protection class	IP-66, IK09
Lifetime	MTBF>150.000h according to Telcordia SR-332

Mechanical features

Socket	NEMA 7- 108-32125 ANSI C136.41-2013
Dimensions	98 mm high & 76 mm diameter
Weight	180 gr.
Material	Base (94 V0) - cover (Polycarbonate)