Product Fact Sheet

AGIL LCU 302, AGIL LCU 302-1 (NBIoT)
Remote Street Lighting Controller

Key Application

- Single lamp remote controller with LED driver
- Street lighting

Functional Specifications

- AGIL LCU 302 , AGIL LCU 302-1
- Support Cat NB1, Cat NB2 & Cat M1
- Frequency Bands: Cat NB1/NB2 & Cat M1 (B1/2/3/4/5/8/12/13/18/19/20/25/26/27/28/66/85)
- On/Off and dimming functionality with DALI/ 0–10-volt selection
- Real-time reporting and alarms
- Alarms: lamp/LED driver failure, over/under voltage, over current, low/high power, low power factor, dimming failure
- Configuration: On/OFF/Dimming, over/under voltage, over current and light intensity
- Built in energy meter
- Reports of various luminaire dynamic parameters such as light intensity, line voltage (V), current (mA), active power (KW), power factor and active energy (aggregate) consumption (KWH)
- Auto-positioning with GPS
- Secured data protection, PKI – TLS1.2 over TCP
- RTC supports scheduled task and Photocell for backup light control
- Supports over the air firmware upgrade
- Optional configuration for last gasp

Mechanical / Working Environment

- Size: Ø 84 x 98 mm
- IP Protection: IP66
- Weight: 0.22kg
- Operating Temperature: -40°C~+72°C
- Operating Humidity: <95%RH Non-condensing

Product Compliant/Certification

- Safety: IEC 61347-1:2015+A1:2017, IEC 61347-2-11:2001+A1:2017, EN 62493:2015
- EMC: EN IEC 55015:2019+A11:2020, EN 61547:2009, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A2:2021
- RF: EN 301908-1 V15.1.1, EN 301908-13 V13.2.1
- Environment: EN 60068-2-30:2005, EN 60068-2-2:2007
- IP Rating : EN 60529:1992+A1:2000+A2:2013
- RoHS: EN 63000:2018
- Entrusted (IK08): IEC 62262:2002
- Reliability (ALT): IEC 62059-31-1:2008
- CE Conformity
- FCC Certified

Installation

- Standard NEMA 7-PIN interface, plug and play
- AGIL LCU 302 is easily installed on top of the lighting fixture utilizing a NEMA socket

Technical Specifications (V1.0)
AGIL LCU 302, AGIL LCU 302-1

Relay	1-route, 250V/16A		
AC INPUT		**AC OUTPUT**	
Voltage Range	96V-276Vac	**Voltage Range**	96V-276Vac
Frequency Range	50-60Hz	**Frequency Range**	50-60Hz
Current Range	0-2A	**Load Current**	2A (max)
Static Power	<1W	**Max Load**	≦450W @ 230Vac
Surge Protection	320Vac @ 6KV	**Isolation**	2KV @ 1sec @ 5mA
DATA READING			
Line Voltage Detection	96V-276Vac	**Active Power (KW)**	Supported
Current Detection	0-2A	**Active Energy (KWH)**	Supported (Aggregate)
Power Factor	Supported	**Light Intensity**	Light Sensor
Data Accuracy	≤2%		
DIMMING CONTROL			
Mode	Analog Voltage	DALI	
Output/Interface	Analog Voltage, 0-10V / 1mA	Digital, Dali 1.0	
Dimming Range	0 – 100%	0 – 100%	
COMMUNICATION			
Mode	NB, Cat M1	**Antenna Type**	Built in (Omni-directional)
Supported Band	B1/2/3/4/5/8/12/13/18/19/20/25/26/27/28/66/85	**Antenna Gain**	2dBi
GNSS	GPS	**Receiver Sensitivity**	-102dBm
Data Speed	150Mbps (max)	**Output Transmit Power**	21dBm
Network Protocol/Security	TCP/PKI-TLS1.2 over TCP		
OTHER FUNCTIONS			
Report	Automatically report alarms and data, query function to report		
Alarms Type	Power failure, under voltage, over voltage, over current		
Backup Mode	Photocell control	**Task Mode**	Timer control based on RTC
Record Energy	Record total energy consumed and reset		
Fail-Safe mechanism	An autonomous pre-programmed scenario operation for backup protection.		
PRODUCT COMPLIANT/CERTIFICATION			
Safety	IEC 61347-1:2015+A1:2017 IEC 61347-2-11:2001+A1:2017 EN 62493:2015	**High Temperature Alternating Damp Heat**	EN 60068-2-2:2007 EN 60068-2-30:2005
EMC	EN IEC 55015:2019+A11:2020 EN 61547:2009 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A2:2021	**IP Rating** **RoHS** **Entrusted** **Reliability (ALT)**	EN 60529:1992 + A1:2000 + A2:2013 EN 63000:2018 IEC 62262:2002 IEC 62059-31-1:2008
RF	EN 301908-1 V15.1.1 EN 301908-13 V13.2.1	**Europe** **USA**	CE Conformity FCC
WORKING ENVIRONMENT			
Temperature	-40°C~+72°C		
Humid	<95% RH Non-Condensing		
IP Rated	IP66		
Entrusted (Impact)	IK08		
Size	Ø 84mm, Height 98mm		
Weight	0.22 KG		

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Precautions

Please read this specification carefully before use, so as to avoid any installation error that might cause the malfunction of the device.

Transportation and Storage conditions

（1）Storage Temperature：-40℃~+85℃；

（2）Storage Environment：avoid any humid,wet env；

（3）Transport：avoid falling;

（4）Stock piling：avoid over-piling；

Notice

（1）On-site installation should be done by professional personnel;

（2）Do not install the device in along-term high temperature environment, which might shorten its lifetime;

（3）Well insulate the connects during the installation;

（4）Wire the device STRICTLY according to the attached diagram, inappropriate wiring might cause deadly damage to the device;

（5）Please rotate the device to ensure the NEMA interface is completely connected;

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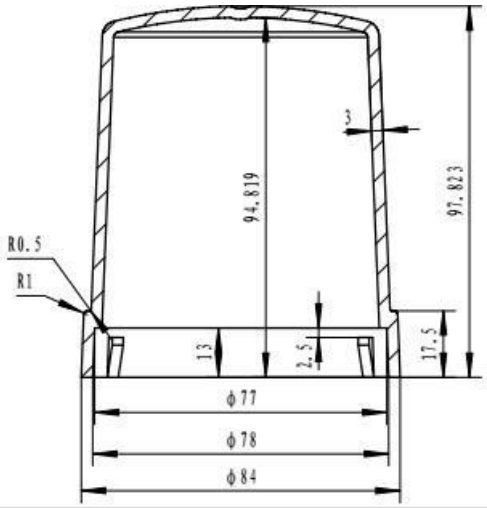
Dimension



Features

- Support NB, Cat M1 ;
- Standard NEMA 7-PIN interface, plug and play;
- Remotely turn ON/OFF, built-in 16A Relay;
- Support dimming interface: DALI and0-10V;
- Failure detection: lamp failure, power failure, over voltage, overcurrent, under voltage, power out rage;
- Automatically report failure notification to server and all trigger thresholds areconfigurable;
- Built-in power meter, support remotely read real-time status and parameters like voltage, current, power and energyetc;
- Built-in RTC, support scheduled task;
- Built-in photocell, auto control via luxvalue;
- Built-in network indicator: easy for trouble shooting;
- Optional configuration: last gasp,GPS;
- Support online firmware upgrading(OTA);
- IP66.

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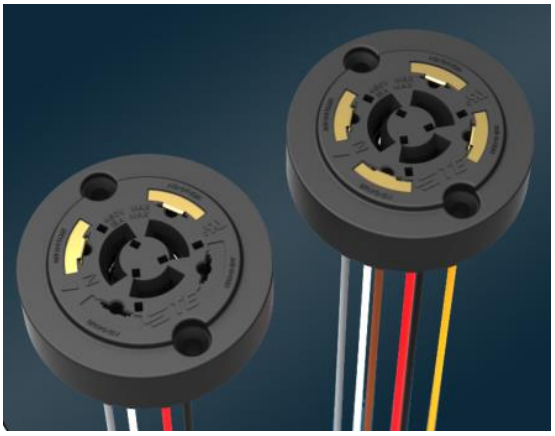
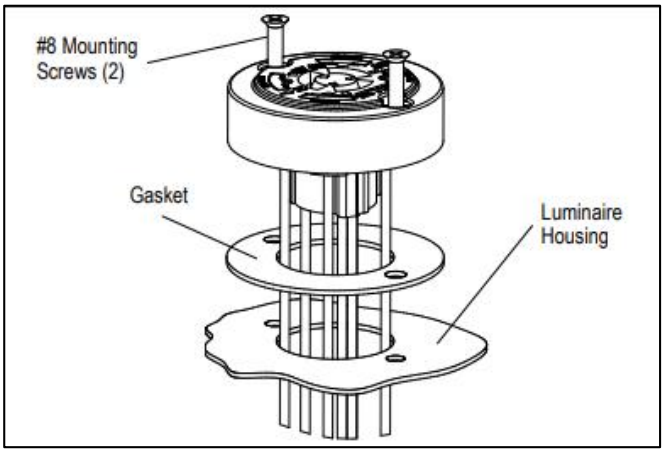
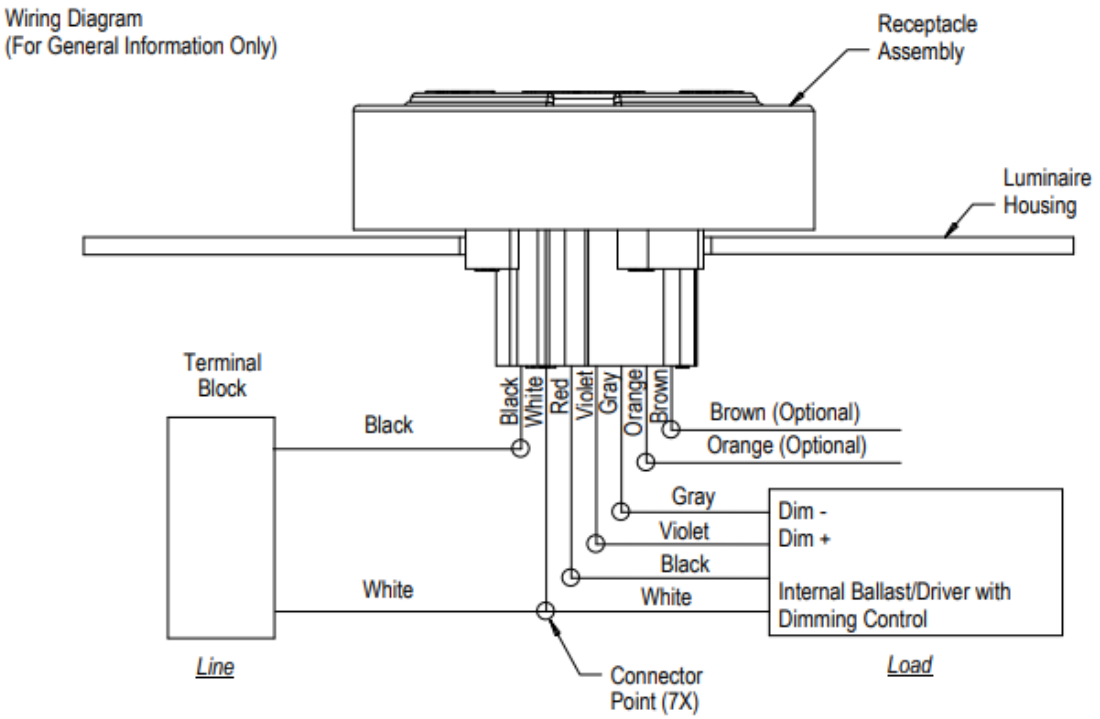
Wiring Diagram







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These two models of our company’s FCC certified products: AGIL LCU 302, AGIL LCU 302-1 , make the following statement:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.