ADVANCED LOAD CONTROLLER (ALC)

Power and fixture control

Product specifications

PRODUCT OVERVIEW

The Luum Advanced Load Controller (ALC) is a lighting controller and power control device used to manage entire branches of lighting loads, individual fixtures, or plug loads.

The ALC communicates wirelessly via the embedded 6LoWireless protocol.

The ALC can receive occupancy, vacancy, daylight, temperature, and humidity data from an optional connected sensor and transmit that data across the network.

The ALC is able to measure and report power consumption to help track energy usage and detect failed drivers or lamps.

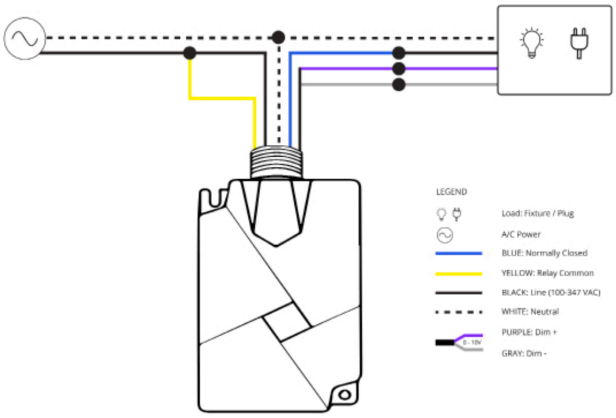
CONFIGURATIONS

ALC: Load controller with relay, 0-10V dimming, wireless control and onboard power metering.

FEATURES

Fixture control functionality	Controls individual lights or branch circuits up to 20AMP
	Plug load (receptacle) control can disable receptacles when rooms are vacant to save energy
	Self-contained relay switches line voltage loads with 0-10V output for dimming
	RJ12 input for MLTH2 Sensor detecting motion, light, temperature and humidity
	Onboard power metering
Simple installation	Quickly installs using a 1/2” knock-out on a junction box or fixture
	LEDs indicate power and network connection status
Simple startup	Remotely configurable / upgradeable
	Luum app commissions devices on the mesh network
	Unique IPv6 address
	Real-time data uploaded to the Energy Dashboard
Energy Code	Complies with ASHRAE 90.1-2016 and CA Title 24 requirements
Certifications	ETL Listed (cETLus) to UL 60730-1
Warranty	5-year limited warranty with uninterrupted connection of the Luum Border Router device from a network

ALC WIRING DIAGRAM



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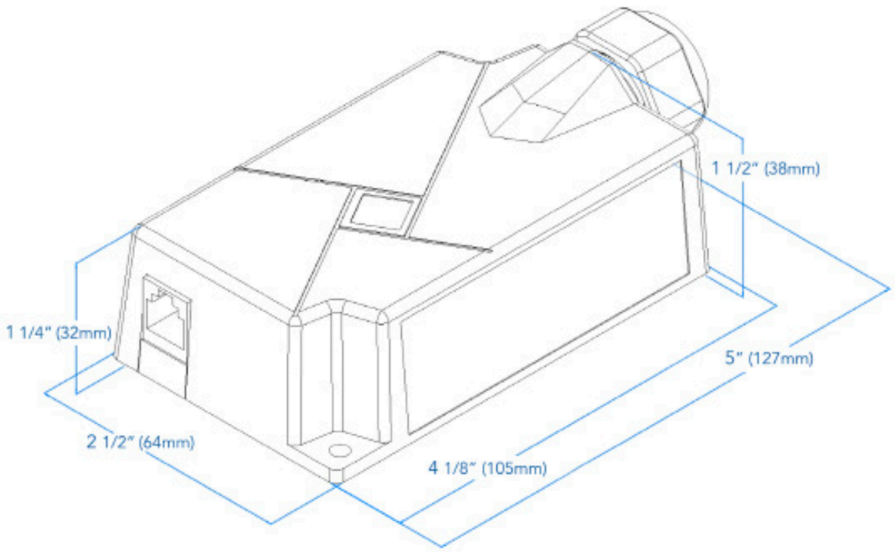
TECHNICAL SPECIFICATIONS

Category	Specification	ALC
COMMUNICATION	Wireless transmit range	Up to 200 feet line of sight to nearest mesh connected device
	Communication protocol	Embedded 6LoWireless
	Encryption	AES 128-bit
ELECTRICAL	Input Voltage	100-347VAC 50/60Hz
	Low Voltage Output	Class 2, 150mA @ 16VDC
	Dimming	0-10V, 1-10V source or sink operation
	Power metering	Accurate to within 5%
	Relay	20A @ 120VAC 16A @ 277VAC 1/2HP @ 120/277VAC 7A @ 347VAC Isolated Normally Open and Closed contacts
MECHANICAL	Dimensions	4 ½" (105mm) L or 5" (127mm) L with cap 2 ½" (64mm) W 1 ¼"(32mm) H
	Wire Colors	Black (L), White (N), Red (Switched), Violet (10V), Gray (0V)
	Finish	White Matte
	Enclosure	Type 2, Plenum Rated
	External outputs	On-board button for manual control • Push and hold to dim • Press to toggle on/off
ENVIRONMENTAL	Installation environment	Commercial, Indoor/Covered
	Temperature range	For 120V & 277V: -22 °F (-30°C) to 130°F (+55°C) • For 347V: -22 °F (-30°C) to 122°F (+50°C)
GENERAL	Warranty	5-year limited warranty with continuous cloud connection
	Standards / Ratings	FCC • ETL Listed (cETLus) to UL 60730-1 and UL 2043
	System compliance note	Device contributes to Luum system compliance with ASHRAE 90.1-2016 and CA Title 24 requirements

Note: Actual performance may vary as a result of end-user environment and application.

LED INDICATOR REFERENCE

OFF	No power (unless disabled)
Blue slow blink	Looking for network (behaves normally)
Blue fast blink	In pairing mode
Blue solid	Connected to wireless network/AMBR (normal)



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