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Product specifications

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PRODUCT OVERVIEW

The Amatis Controls Border Router (AMBR) is our wireless lighting control system communication gateway.

AMBR communicates wirelessly with drivers, sensors, and controllers to form a robust mesh network.

Every Amatis device connects to AMBR via our 6LoWireless protocol. AMBR uses this wireless communication to configure each device automatically to create a secure 6LoWireless mesh network.

AMBR connects to the web using a secure, encrypted VPN connection. It also uploads real-time data from each device to our web-based user interface—the Amatis Energy Dashboard—via Ethernet or cellular network connections.

CONFIGURATIONS

AMBR: Amatis Border Router gateway with secure cloud connectivity, Ethernet network access, and support for up to 100 wireless devices on the 6LoWireless mesh network.

FEATURES

GATEWAY CAPABILITIES	Manages the creation and configuration of Amatis 6LoWireless mesh networks
	Supports remote commissioning and troubleshooting
	Hosts up to 100 wireless devices
	Integrates with Building Automation Systems via standard BACnet/IP protocol
	Includes AES 128-bit encryption and secure cloud connection
EASY, PLUG-AND-PLAY INSTALLATION	Included CAT5 ethernet cable, DC Power adapter, and wall-mount adapter for quick mounting and installation.
	LEDs indicate power and network connection status
SIMPLE STARTUP	Remotely configurable / upgradeable
	Amatis app easily commissions the AMBR and all devices on the mesh network
	With Internet connection, uploads real-time data from all devices the Energy Dashboard
COMPLIANCE	UL and FCC Certified
WARRANTY	5-year limited warranty with uninterrupted connection of the Amatis Border Router device from a network

AMBR

TECHNICAL SPECIFICATIONS

Category	Specification	AMBR
COMMUNICATION	Wireless transmit range*	Up to 200 feet to nearest mesh connected device
	Communication protocol	Embedded 6LoWireless
	Encryption	AES 128-bit
	Mechanism	Dual internal antennas provide robust signal strength and dependable communication
ELECTRICAL	Input voltage	12-30VDC
	Supplied power supply	24VDC wall adapter included
	Typical power consumption	1.2W (150mA @ 24V)
MECHANICAL	Dimensions	6 ¾" (171mm) w; 4½' (144mm) h; ¼" (32mm) d
	Color	White with black faceplate
	Finish	High gloss
	Enclosure	Type 2, Plenum Rated
	External outputs	Single Ethernet port for LAN connectivity and management
ENVIRONMENTAL	Installation environment	Commercial, Indoor/Covered
	Temperature range	32-131°F (0-55°C); 5-95% RH, non-condensing
GENERAL	Standards / Ratings	FCC, UL-certified wall supply
	Compliance	Device contributes to Amatis system compliance with ASHRAE 90.1-2016 and CA Title 24 requirements

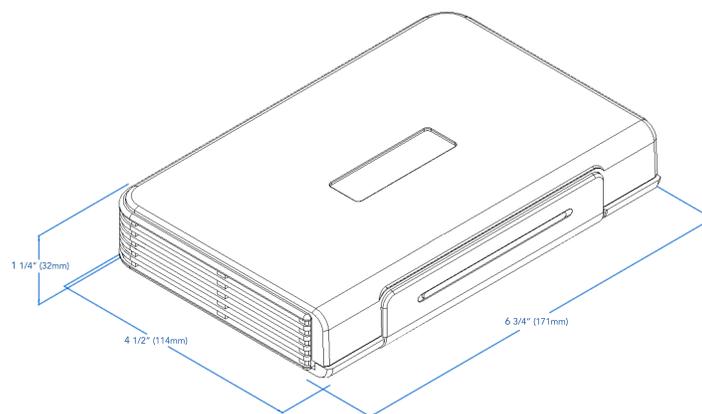Note: Actual performance may vary as a result of end-user environment and application.

LED INDICATOR REFERENCE

LED	Flashing	Solid	Off
Green	Starting up	Start up GOOD	Start up ERROR
Orange	N/A	Offline data logging	Offline logging ERROR
Blue	VPN GOOD	Cloud connection GOOD, no VPN	Internet ERROR
White	Normal Operation	N/A	Wireless Network ERROR
Red	N/A	Power GOOD	Power ERROR

Note: If solid red is the only illuminated LED, this is a critical error state.

NETWORK FIREWALL REQUIREMENTS

Rule	Network Firewall Requirements
1	TCP 443 outbound to mqtt.amatiscontrols.com
2	TCP 443 outbound to api.amatiscontrols.com
3	UDP 1195 outbound to vpn.amatiscontrols.com (optional)
4	TCP 3306 outbound to sql.amatiscontrols.com (optional)
5	TCP 443 outbound to dash.amatiscontrols.com (optional)

1 1/4" (32mm)

4 1/2" (114mm)

6 3/4" (171mm)