# AMBR

Amatis Border Router (Amber)

Product specifications

## 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

*Based on clear line of sight. Interior obstructions may limit range.

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# 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.

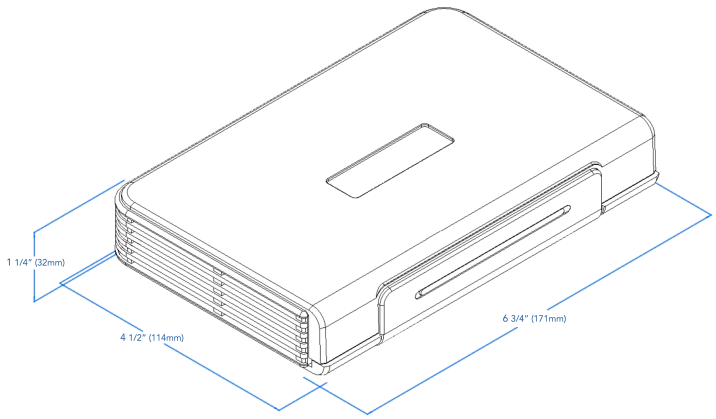
# LED INDICATOR REFERENCE

| 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) |

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