



Remote Monitoring for Business

ALTA Wireless Control Units

General Description

Monnit ALTA Wireless Control Units have two relay switches allowing individual control through iMonnit. The relays can be switched on/off manually through iMonnit or automatically by any wireless sensor notification assigned to a single sensor or group of sensors when a specified condition is detected.

Principles of Operation

ALTA Control Units have two separate relays that can be toggled on/off by either iMonnit or any device that triggers a notification on the same network. Four LED indicators show if the unit is on, communicating with iMonnit, and relay status.

The two relays can also be controlled automatically by any wireless sensor or group of sensors. Automatic relay switching can be triggered by setting the control parameters in an iMonnit sensor notification.

You can set the default state of each relay to on or off, and your preset sensor messages will cause the relay to switch to the non-default state. The relay returns to its default state when the preset condition isn't met.

For example, if an ALTA Water Detection Sensor senses water at a certain level in a sump pit, the relay will switch on, activating the pump. When water is no longer detected, the relay will switch off, deactivating the pump motor.

The ALTA 15-Amp Wireless Control Unit has latching relays that maintain their position even when the unit is powered off. Once their position is electrically set, they will stay there until a command is given to change it. This is useful when relays must maintain a position even when power is lost.

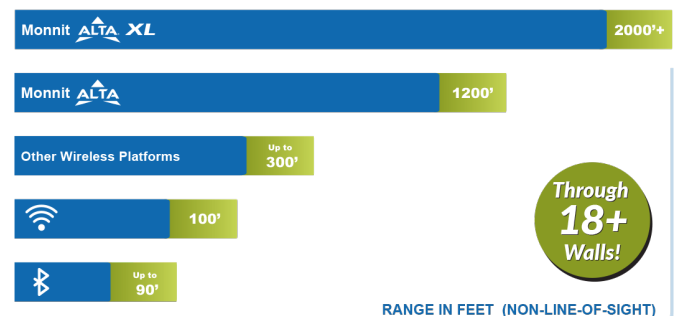


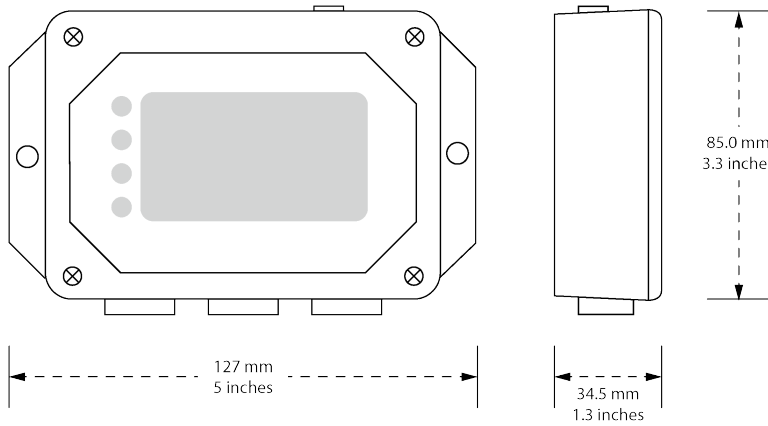
ALTA Wireless Control Unit Features

- Wireless range of 2,000+ feet through 18+ walls¹
- 900 MHz Frequency Hopping Spread Spectrum (FHSS); 868 and 433 MHz are Frequency Agile
- Best-in-class interference immunity
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + Advanced Encryption Standard (AES)-128 Cipher Block Chaining (CBC) for sensor data messages)
- Each unit logs up to 16,000 readings in memory if the gateway connection is lost (non-volatile flash, persists through power cycling)
- Automatic over-the-air updates to unit firmware (future-proof)
- Allows for automated control
- 10-Amp, 15-Amp, or 30-Amp units available
- Two separate relays per unit
- Can be manually triggered by any Monnit Wireless Sensor through the iMonnit software.
- AC-powered, always on for immediate response from paired sensors
- Requires a connection to an ALTA or ALTA XL Gateway
- Free iMonnit Basic Online Wireless Sensor Monitoring and Notification System to configure sensors, view data, and send alerts via SMS text, email, and voice call

¹ Actual range may vary depending on the environment and

Wireless Range Comparison





Applications

- Facilities / Building Operations
- Automated Systems
- Smart Buildings
- Manufacturing Processes
- Machine Control
- Lighting Control
- Sump and Water Evacuation
- Agriculture and Greenhouses

Monnit Wireless Control Unit Specifications			
Control Unit Relays	10-Amp Units	15-Amp Units	30-Amp Units
Coil type	Non-Latching	Latching, Dual Coil	Non-Latching
Initial Contact Resistance	Max 100 mΩ	Max 60 mΩ	Max 50 mΩ
Max Switching Power (resistive load)	2500VA 150W (NO)	4000VA, 384W	8310VA (30A 277VAC)
Max Switching Voltage	250 VAC, 100 VDC	250 VAC, 24 VDC	277 VAC
Max Switching Current	10A (AC), 5A (DC)	16A (NO), 5A (NC)	30A
Nominal Operating Power	Approx. 360 mW	Approx. 750 mW	Approx 800 mW
Operate Time (at nominal voltage / 20°C)	Max 10 ms	Max 10 ms	Max 20 ms
Release Time (at nominal voltage / 20°C)	Max 10 ms	Max 10 ms	Max 10 ms
Max Operating Speed	20 times/min	20 times/min	20 times/min
Number of Relays	2 (individually controlled)		
Control Activation	-Automatic based on sensor notification settings -Manual through iMonnit scheduling		
Input Power	5 VDC @ 900 mA		
Antenna	Connector: SMA Gain (dBi): 3.0		
Indicator Lights	Four LED indicators - Power - Radio (RF) communication - Relay 1 status (On/Off) - Relay 2 status (On/Off)		
Enclosure	ABS Plastic UL94V-0 flame rating		
Dimensions	5.5 x 3.355 x 1.25 in. (139.7 x 85.217 x 31.75 mm)		
Weight	8 ounces		
Wireless Range	Up to 2,000+ ft. non-line-of-sight		
Security	Encrypt-RF™ (256-bit key exchange and AES-128 CTR)		
Operating Temperature	-40° to +85° C (-40° to +185° F)		
Certifications:	900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 868 and 433 MHz product tested and found to comply with: CISPR 22:2008-09 / EN 55022:2010 - Class B and ETSI EN 300 220-2 V2.4.1 (2012-05).		

Caution/Notice:

Monnit commercial-grade products are designed for applications in ordinary environments (normal room temperature, humidity, and atmospheric pressure). Do not use these units under the following conditions, as these factors can deteriorate the product characteristics and cause failures and burnout.

- Corrosive gas or deoxidizing gas: chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxide gas, etc.
- Volatile or flammable gas
- Dusty conditions
- Low-pressure or high-pressure environments
- Wet or excessively humid locations
- Places with salt water, oils, chemical liquids, or organic solvents
- Where there are excessively strong vibrations
- Other places where similar hazardous conditions exist

Use these products within the specified temperature range. Higher temperatures may cause deterioration of the characteristics or the material quality.



Monnit Corporation

3400 South West Temple • Salt Lake City, UT 84115 • 801-561-5555
www.monnit.com