

AXS-5 / AXM-5

Single-Door Proximity Access Control Systems



VisAccess

Installation Guide

Introduction

AXS-5/AXM-5 is an access control system designed for a single door. AXM-5 is a smaller, mullion-design version of AXS-5.

The AXS-5/AXM-5 includes proximity tags/cards reader and a control unit in the same housing. Proximity tags/cards are used as electronic keys for opening a door in the secured area.

When a valid proximity tag/card is presented to the reader, the system sends an unlock signal to the door, for a short period, to enable entering the secured area (see fig. 2).

The AXS-5/AXM-5 memorizes a master key plus 25 keys. It is supplied with 6 free proximity tags (Tag-1 type) and 2 screws. Additional proximity tags and cards can be purchased separately. Proximity cards with any picture, logo etc., can be purchased according to the purchaser desire.

The AXS-5 and AXM-5 are totally protected against dust & water and are shock/impact protected - they are potted in epoxy resin.

The system is powered by an external 12 VDC power supply. The EMS (Electro-Magnetic Door Strike) is energized with 12 VDC when a valid key is presented.

If a Request To Exit feature is required, an additional adapter (ADP-5) can be added to the system, to enable manual door opening inside the secured area (by using EXIT button) or automatic opening (by using IR motion detector). A backup battery can be connected to the ADP-5, to enable operation when power fails.

When the system is in TOGGLE mode, presenting a valid tag arms/disarms an alarm system or activates/deactivates an electrical device (such as an air conditioner).

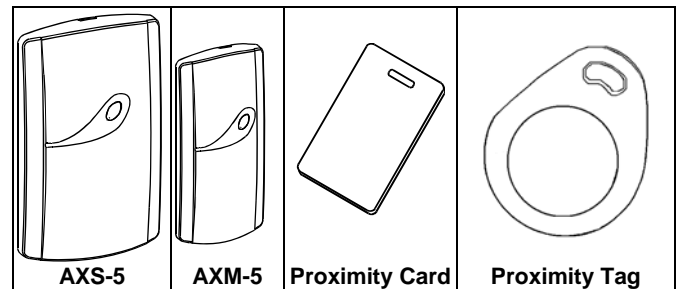


Figure 1 - System Elements External View

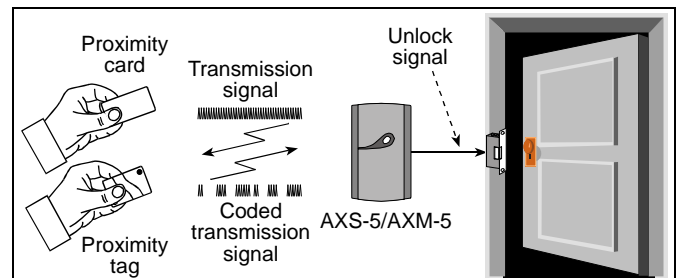


Figure 2 - System Operation

For additional information and installation instructions, please contact the Visonic Technologies sales department.

Specifications

Frequency: 125 kHz

Range, Dimensions and Weight of the System Elements:

	Tag / card Reading Range	Dimensions (mm) (L x W x D)	Weight (g)
AXS-5	50-100 (2-4 in.)	116 x 70 x 16.8 (4-1/2 x 2-3/4 x 5/8 in.)	112 (3.9 oz.)
AXM-5	40-80 (1-1/2 - 3 in.)	94 x 43 x 16 (3-13/16 x 1-23/32 x 5/8 in.)	82 (2.9 oz.)

Power Input: 12 - 14 VDC

Power Output: 12 VDC / 500 mA

Current Consumption: 150 mA (Idle), 650 mA (EMS open)

Door Unlock Duration: 1.5 to 99 seconds

Indicators: Tricolor LED - Green, Red, Amber

Tag Codes Possibilities: 10¹² possible combinations

Key/Card Memory: 25 keys/cards (users)

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

Color: Metallic brown or white

Environmental Protection (Solids, Liquids, Impact): IP677

Proximity Tag/Card Dimensions, Weight and Color:

	Dimensions (mm) (L x W x D)	Weight (g)	Color
Prox. Tag TAG-1	30 x 36.5 x 7.5	5.0	Dark Gray
Prox. Card CRD-1	85.5 x 54 x 1	5.6	White

Installation and Wiring

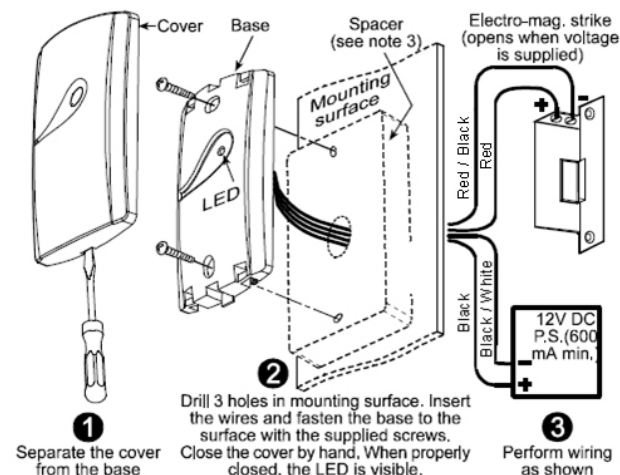


Figure 3 - Mounting and Wiring

Important Notes

- When installing more than one AXS-5/AXM-5, the distance between them should be at least 60 cm (2 ft.), to ensure proper operation.
- The maximum power output of the AXS-5/AXM-5 is 12VDC/500 mA. If using a locking device with higher power requirements, please use a separate relay and power supply.
- Do not install the AXS-5/AXM-5 on a metal surface or a metal door frame, since this decreases the read range significantly. If you have to install the reader on a metal surface, use a spacer so that the reader will be at least 1 cm (3/8 in.) away from the metal. You should use RDR-BACK (for AXS-5, can be purchased separately, white or brown, according to its color) or RDM-BACK (for AXM-5, supplied with each AXM-5) that are optional spacers made specifically for this purpose.

Programming

Note: AXS-5/AXM-5 exits programming automatically and reverts to normal state if no activity is detected for 10 seconds.

Initial Non-programmed State

When first connected to power, the LED blinks amber and red alternately to indicate that there is no master key.

- Present one of the keys supplied with the unit. This key will become the master key.
- The AXS-5/AXM-5 accepts the master key and the LED turns amber to indicate the idle state.

Note: the master key in a safe place. The master key is used for programming only and cannot be used for access control.

Add Keys

Hold the master key next to the unit for 10 sec. approx. The green light starts blinking, indicates that the system is in ADD mode.

While in ADD mode:

- Present a key to be added.
- The LED lights green steadily for 2 seconds to indicate acceptance of the new key.
- To add more keys, wait until the LED resumes blinking green and present a new key.
- When the memory is full with 25 user keys, the AXS-5/AXM-5 will not accept any more keys and continue blinking green at 2 Hz even when a new key is presented.
- To exit the ADD mode wait 10 seconds with no activity.

Delete Keys

While in the ADD mode, hold the master key near the unit until the red light starts blinking. This indicates that the system is in DELETE mode.

- If the key to be deleted is available, simply present it to the unit for deletion. The LED lights red steadily for 2 seconds to indicate that the key has been deleted.

If the key is lost or stolen, all keys must be deleted and the available keys have to be added back in.

- While in the DELETE mode, present the master key to the AXS-5/AXM-5 for another 10 seconds.
- The LED will light red steadily for 2 seconds to indicate that all keys were deleted and the light will reverse to steady amber.

Operation

During normal operation, the LED lights amber to indicate the idle state. When presenting a valid key, the LED lights green and opens the lock for 5 seconds (default unlock duration).

If a key is invalid, the LED lights red for 2 seconds.

- Enter the ADD mode again (see 4.2) and add all available keys.

Setting Unlock Time

The system default unlock duration is 5 seconds. In Toggle mode, the unlock duration is unlimited. The time can be set between 1.5 to 99 seconds, as follows:

- Enter the system to Delete mode (see par. 4.3).
- Present the master tag for 1 second approximately.
- The LED blinks amber.
- Present any valid non-master key for the required unlock duration and remove it promptly.

Master Tag Resetting

Resetting the master tag is performed by connecting the EMS [-] to the Power [-] in the following order:

- Disconnect the white/orange wire from the door lock
- While the unit is powered, touch the EMS [-] wire to the 12V [-] Power for about 1/2 second
- Wait about 2 seconds (count 1.. 2.. 3..)
- Touch the EMS [-] wire to the 12V [-] Power again, for 1 second

It may take some practice to get it right. Eventually the master is erased, and the LED blinks red / amber alternately indicating that a new master is needed (see 4.1).

Note: When deleting the master tag, all other keys are not affected.

Entering/Exiting Toggle Mode

To turn the AXS-5/AXM-5 into Toggle mode:

- While the system in Delete mode (see par. 4.3), present the master key for 1 second approximately.
- The LED blinks amber.
- Present any valid non-master key, 4 times, one after another, and wait until the LED returns to amber color.

To exit the Toggle mode:

Set any unlock time (see par. 4.4). After a timeout (defined by the factory), the AXS-5/AXM-5 automatically exits the Toggle mode.

If more than 5 consecutive invalid keys are presented with less than 5 seconds between every two keys, the AXS-5/AXM-5 increases the time of the red LED to 5 seconds and reverts to 2 seconds after a valid key is presented or if more than 60 seconds have passed with no activity.

Warranty

Visonic Technologies Ltd. and/or its subsidiaries and its affiliates ("the Manufacturer") warrants its products hereinafter referred to as "the Product" or "Products" to be in conformance with its own plans and specifications and to be free of defects in materials and workmanship under normal use and service for a period of twelve months from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or replace the product or any part thereof. The Manufacturer shall not be responsible for dismantling and/or reinstallation charges. To exercise the warranty the product must be returned to the Manufacturer freight prepaid and insured.

This warranty does not apply in the following cases: improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than the Manufacturer. This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express or implied, including any warranty of merchantability or fitness for a particular purpose, or otherwise. In no case shall the Manufacturer be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties whatsoever, as aforesaid.

This warranty shall not be modified, varied or extended, and the Manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. This warranty shall apply to the Product only. All products, accessories or attachments of others used in conjunction with the Product, including batteries, shall be covered solely by their own warranty, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Products.

The Manufacturer does not represent that its Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection. User understands that a properly installed and maintained alarm may only reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no death, personal damage and/or damage to property as a result.

The Manufacturer shall have no liability for any death, personal and/or bodily injury and/or damage to property or other loss whether direct, indirect, incidental, consequential or otherwise, based on a claim that the Product failed to function. However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, the Manufacturer's maximum liability shall not in any case exceed the purchase price of the Product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against the Manufacturer.

Warning: The user should follow the installation and operation instructions and among other things test the Product and the whole system at least once a week. For various reasons, including, but not limited to, changes in environmental conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for his/her safety and the protection of his/her property. 6/91



W.E.E.E. Product Recycling Declaration

For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste. Directive 2002/96/EC Waste Electrical and Electronic Equipment.