

AXM-800M / AXM-D800M / AXM-1200M / AXM-D1200M Series

Electromagnetic Lock Installation Instruction (Indoor Series)

A Technical Specification

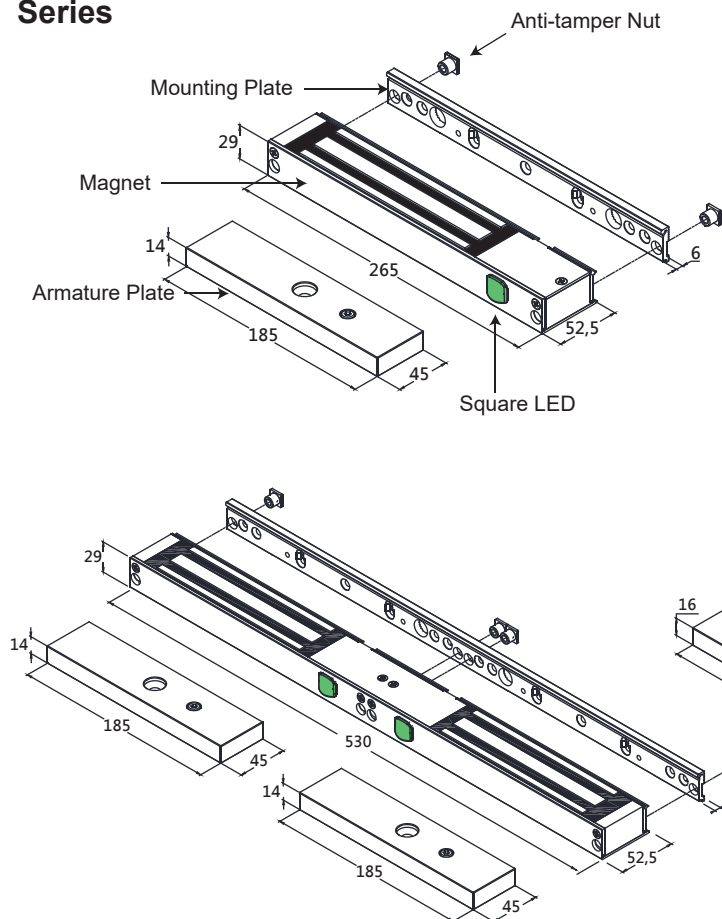
Specification		Model		Type	Notes:
Operating Voltage	12/24VDC	800lbs	1200lbs		
Current Draw	500mA/12VDC 270mA/24VDC	AXM-800M	AXM-1200M	M	
		AXM-800MDS	AXM-1200MDS	M,DS	
Operating Temperature	32° to +120.2°F (0° to +49°C)	AXM-800MTD	AXM-1200MTD	M,TD	
		AXM-800MDS-TD	AXM-1200MDS-TD	M,TD,DS	
Holding Force	800lbs	AXM-800M Series	800lbs x2	1200lbs x2	
	1200lbs	AXM-1200M Series			
Lock Surface Temperature	Current temperature ± 20°C	AXM-D800M	AXM-D1200M	DBL,M	
		AXM-D800MDS	AXM-D1200MDS	DBL,M,DS	
Humidity	0 to 85% Non-condensing	AXM-D800MTD	AXM-D1200MTD	DBL,M,TD	
Finish	Magnet Surface : Galvanized Housing : Brushed stainless steel(US32D)	AXM-D800MDS-TD	AXM-D1200MDS-TD	DBL,M,TD,DS	

"The products shall not impair the intended operation of an emergency exit or panic hardware mounted on the door."

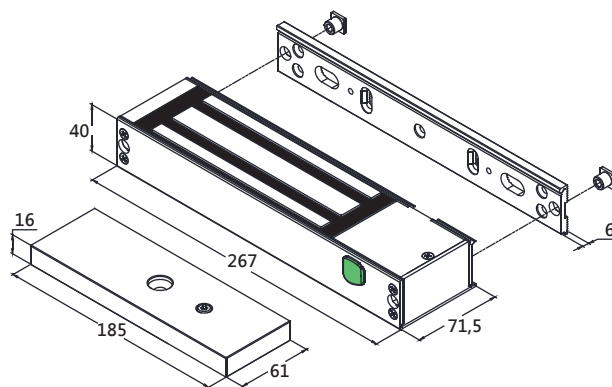
B Dimension & Accessories

Unit:mm

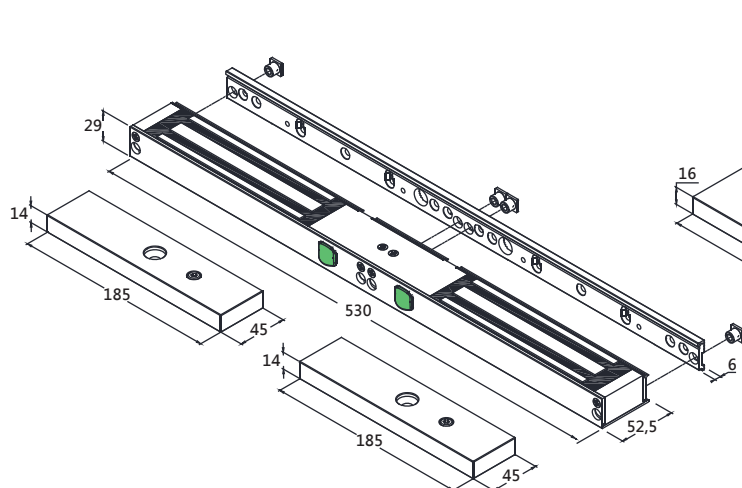
AXM-800M Series



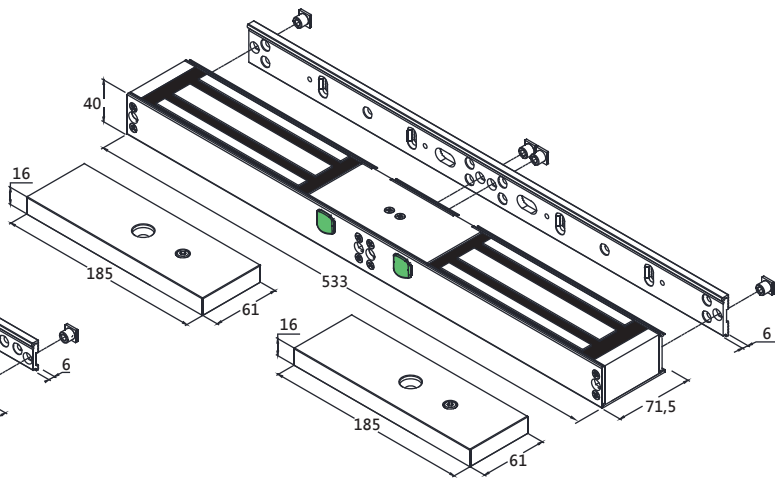
AXM-1200M Series



AXM-D800M Series

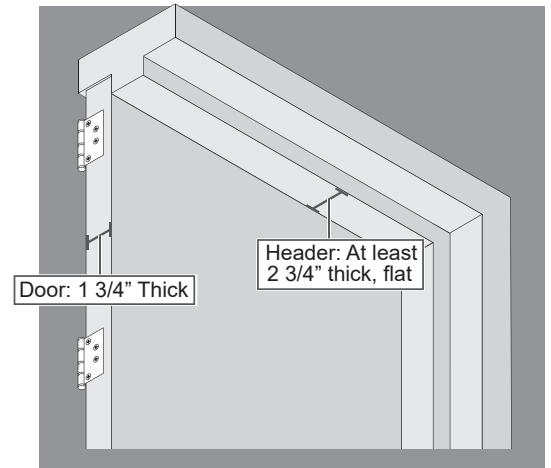


AXM-D1200M Series

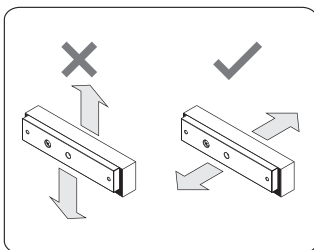


C Pre-Installation Considerations

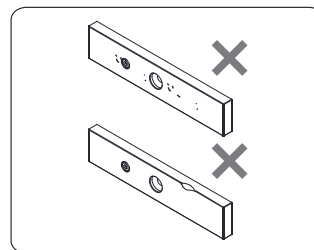
- Use **ONLY** the hardware provided for mounting this product
(NOTE: Non-standard Door thickness may require different sex nut hardware – see specific instructions for required hardware).
- Follow the installation procedure as described in this manual.
- Check door thickness. If the door is not 1 3/4" thick, a different sex nut will be required.
- Check door header. A minimum 2 3/4" thick, flat surface is needed to securely mount all screws for the magnet. If you do not have the required surface, you will need filler plates and/or angle brackets to properly mount the magnet.



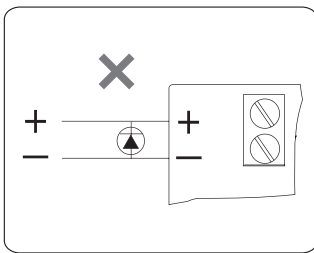
D Important Notes



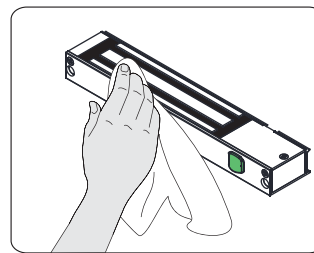
CAUTION
The electromagnetic lock requires a face-to-face fitting as shown in Figure otherwise, the holding force will be greatly decreased (direction of hydraulic press pull must be collinear).



Make sure the contact area of the electromagnetic lock and the armature plate are clean.



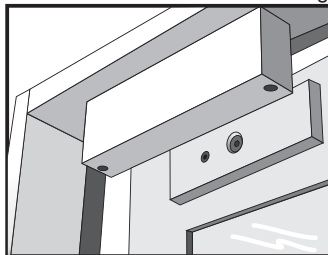
CAUTION
Remove any diode installed across the magnetic lock for spike suppression. The magnet is fitted with a metal oxide varistor to prevent back EMF.



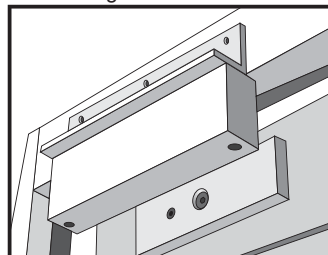
Wipe the surface of magnetic lock with anti-rust oil regularly.

E Optional Bracket

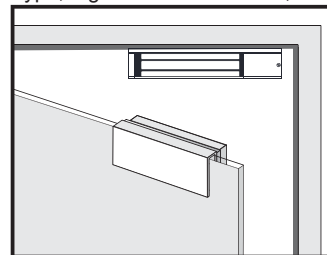
Brackets installation are according to door swing direction and door frame type, e.g. narrow frame door, frameless glass door, inswing door, etc.



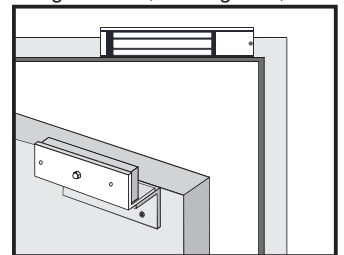
Regular Installation
(outswing door)



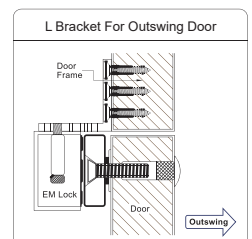
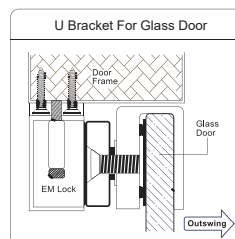
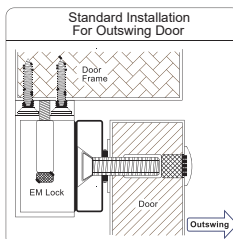
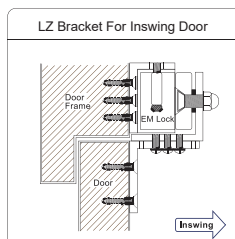
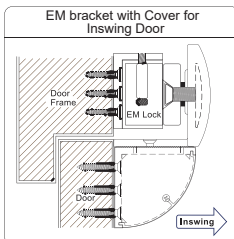
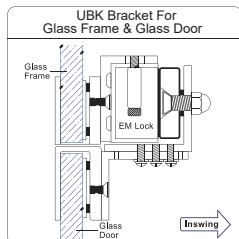
L-bracket for narrow frames



U-bracket for frameless glass doors
(outswing door only)



LZ-bracket for inswing doors



WARNING

Warnings indicate potentially hazardous conditions, which if not avoided or corrected, may cause death or serious injury.

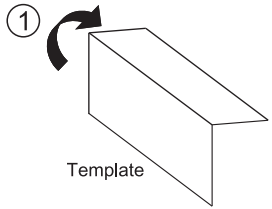
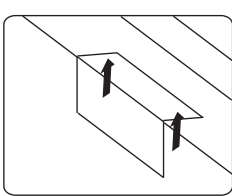
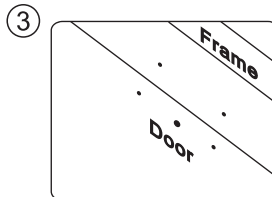
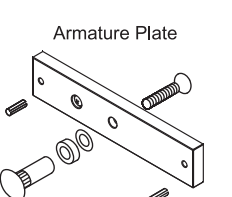
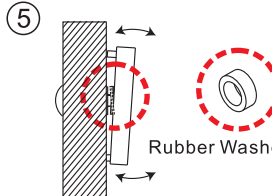
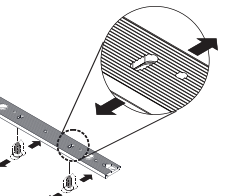
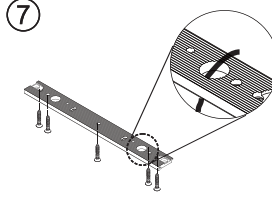
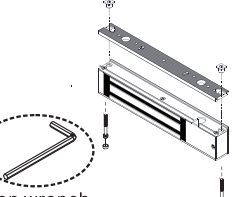
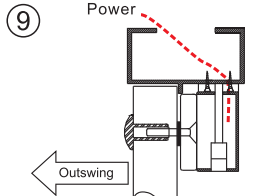
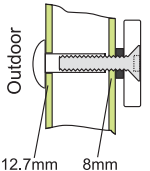
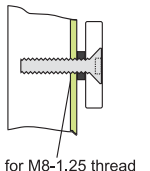
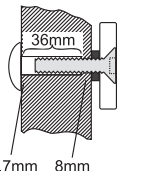
CAUTION

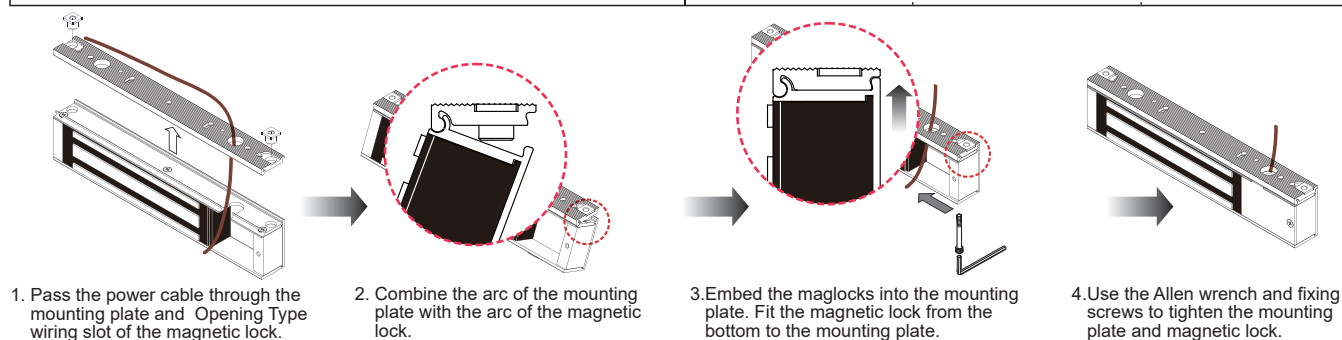
Cautions indicate potentially hazardous conditions, which if not avoided or corrected, may cause minor or moderate injury. Cautions may also warn against unsafe practices.

NOTICE

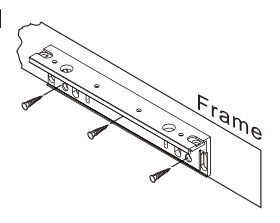
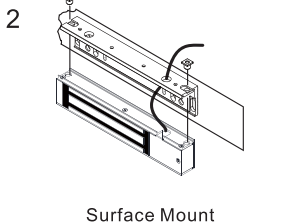
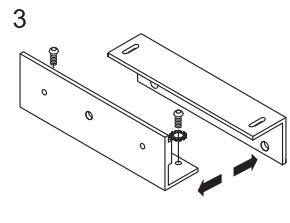
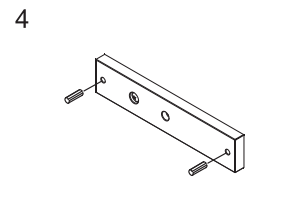
Notices indicate a condition that may cause equipment or property damage only.

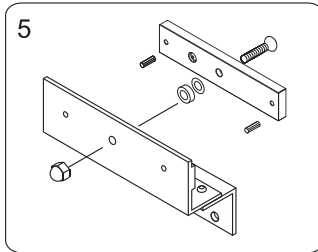
F Regular Installation

<div>①</div> <div></div> <div>Template</div> <div>Fold the mounting template 90°.</div>	<div>②</div> <div></div> <div>Place the template to the proper position of the door and frame. Mark the hole positions of the template on the door and frame.</div>		
<div>③</div> <div></div> <div>Drill the holes according to the marks.</div>	<div>④</div> <div></div> <div>Armature Plate</div> <div>Please install the armature plate as illustrated here. (Dimensions of the holes depend on the door types illustrated below.)</div>		
<div>⑤</div> <div></div> <div>Rubber Washer</div> <div>The rubber washer makes the surface of the armature plate adjustable in order to completely fit the surface of magnetic lock.</div>	<div>⑥</div> <div></div> <div>Fasten the mounting plate with the mounting screws. The position of the mounting plate should be adjustable.</div>		
<div>⑦</div> <div></div> <div>Fix the mounting plate on the door with mounting screws.</div>	<div>⑧</div> <div></div> <div>Allen wrench</div> <div>Use the Allen wrench and fixing bolts to tighten the electromagnetic lock to mounting plate.</div>		
<div>⑨</div> <div></div> <div>Power</div> <div>Outswing</div> <div>Connect the power and test the unit.</div>	<div>Hollow Metal Door</div> <div></div> <div>12.7mm 8mm</div>	<div>Reinforced Door</div> <div></div> <div>6.8mm for M8-1.25 thread</div>	<div>Solid Door</div> <div></div> <div>12.7mm 8mm</div>
<div>Recommendation :</div> <div>For Midi EM-locks (Model AXM-800M), maximum thickness of door is 48 mm.</div> <div>For Maxi EM-locks (Model AXM-1200M), maximum thickness of door is 46 mm.</div>	<div>Drill a Ø8mm hole through door, on closing side. Enlarge to Ø12.7mm by a sexnut bolt on the opening side.</div> <div>Drill a Ø6.8mm hole and tap on closing side a M8x1.25 thread.</div> <div>Drill a Ø8mm hole through door on closing side. Enlarge to Ø12.7mm by a sexnut bolt on the opening side. The depth is 36mm.</div>		

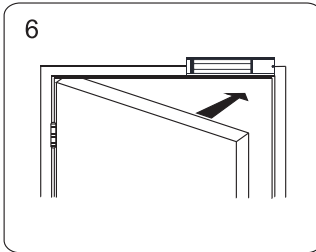


G LZ or Z bracket for inswing doors

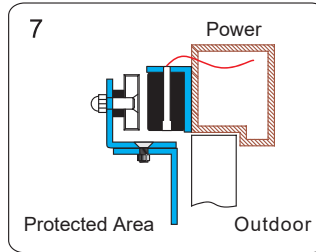
<p>1</p>  <p>Frame</p> <p>Find a mounting position on the door frame for the L bracket. Make sure that the door can still be closed.</p>	<p>2</p>  <p>Surface Mount</p> <p>Use the fixing bolts to tighten the magnet on L bracket.</p>	<p>3</p>  <p>Assemble the Z bracket and make sure that the Z bracket is adjustable.</p>	<p>4</p>  <p>Insert the guide pins into the armature plate.</p>
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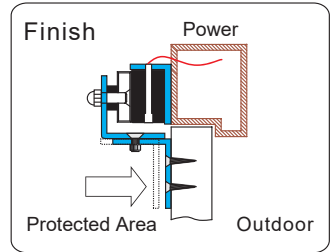
Attach the armature plate and washers to the Z bracket assembly.



Close the door and connect the power.



After the magnet attracts the armature plate, adjust the Z bracket to fit the door.



Fasten the Z bracket to the door.

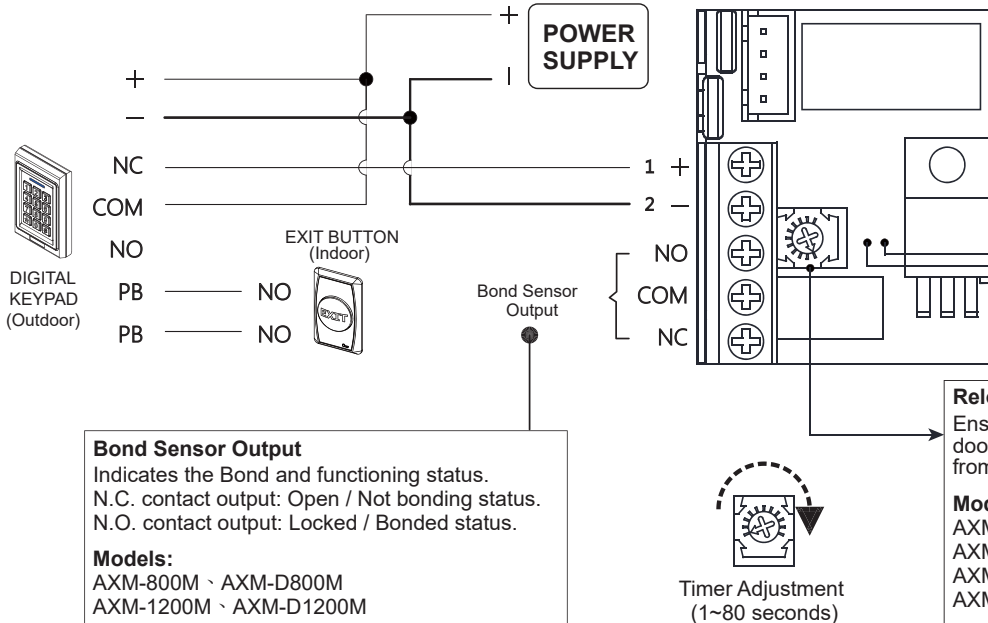
Connecting Diagram

POWER SUPPLY

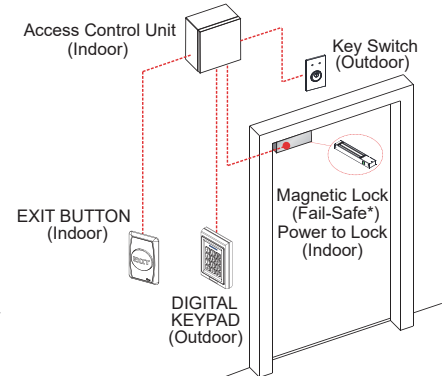
The product must be powered from , regulated, power-limited, power supply.
If power switch is not wired between DC source voltage(+) and magnet, it will take a longer time to de-energize the magnet simulating residual magnetism.
The minimum permissible wire size to be used shall not be less than 22 AWG.

12/24VDC INPUT

- Required power: 12VDC/500mA ; 24VDC/270mA
- 12 or 24VDC Auto switchable
- Connect positive (+) lead from a power source to Terminal 1.
- Connect negative (-) lead from a power source to Terminal 2.



Wiring Diagram - Sample wiring and applications



All the field wiring shall be on the secured side (or indoor).

*For example, if there is a fire in the building, fail-safe locks will unlock due to loss of power, allowing personnel to escape quickly.

Visual Indications LED

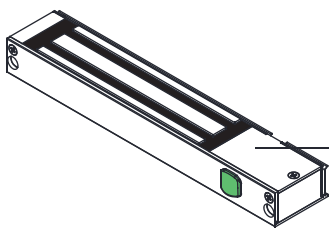
UnLocked : GREEN
Locked : RED
No power : NO LED

Relock time delay (Optional)

Ensures the automatic lock mode works after the door is closed properly and it can be adjusted from 1 to 80 seconds.

Models:

AXM-800MTD 、AXM-800MDS-TD
AXM-D800MTD 、AXM-D800MDS-TD
AXM-1200MTD 、AXM-1200MDS-TD
AXM-D1200MTD 、AXM-D1200MDS-TD



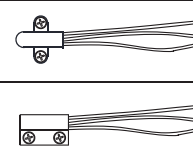
Door Status Sensor

Indicates the door is in and open or closed status. Reed switch rated 0.2A/12VDC

Models:

AXM-800MDS 、AXM-800MDS-TD
AXM-D800MDS 、AXM-D800MDS-TD
AXM-1200MDS 、AXM-1200MDS-TD
AXM-D1200MDS 、AXM-D1200MDS-TD

Sensor Icon



Reed Switch Contact

Orange : N.O.
White : COM.
Brown : N.C.

Trouble Shooting

Problem	Possible Cause	Solution
Door does not lock	No power	Make sure the wires are connected properly Check that the power supply is connected and working properly Make sure the lock switch is wired correctly
Low holding force	Poor contact between electromagnet and armature plate	Check if the armature plate is deformed? Make sure if the rubber washer was used between magnetic lock and armature plate. Make sure the contact surfaces of the electromagnet and armature plate are clean and free from dust and foreign material.
	Low voltage or incorrect voltage setting	Ensure the electromagnetic lock is set for the correct voltage. Check for proper voltage at the electromagnet lock input. If low determine if the correct wire gauge is being used to prevent excessive voltage drop.