

# GEM®



## EM20 Standard Electromagnetic Lock

### Features:

- MOV provides spike and surge protection.
- Magnetic bond sensor monitor output.
- Bi-color LED indicates lock/unlock status.
- Anodized aluminum housing.
- Adjustable mounting plate for easy installation.
- Dual voltage 12 or 24 VDC (selectable).
- Anti-Residual magnetism designed.
- Complete mounting hardware included.

### Statement:

EM20 standard electromagnetic locks are manufactured under GEM's ISO 9001 Certified Quality Management Program environment back its product quality, performance and commitment to customer satisfaction.

The fail-safe Electromagnetic Lock design with no mechanical bolt and depending on the powerful magnetic force to secure and release the door are suitable for use in areas which required security controlled access or egress such as exit door.

The model offers up to 1200 pounds holding force with field selectable for 12V or 24V DC dual voltage and can be applied with access control, and with the full range of optional brackets, it can be installed on any type of door frames such as narrow door frame, in-swinging door. Build in magnetic bond sensor output and bi-colour LED indicates the door locked or unlocked status.

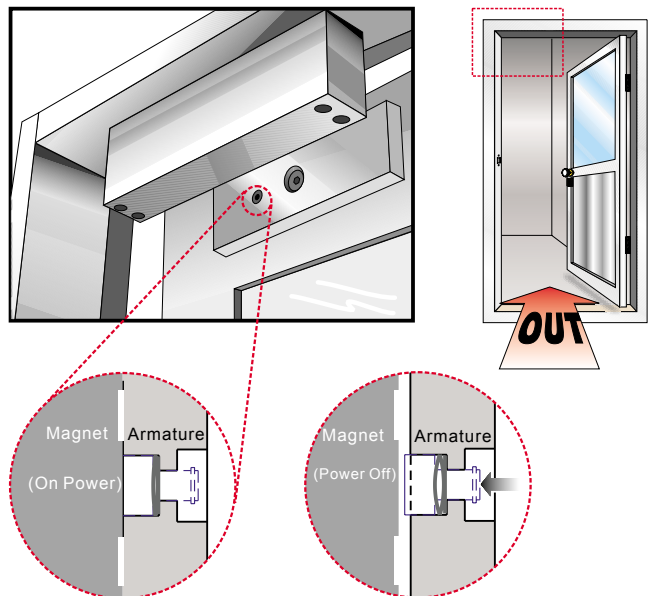
It is the best choice for electronic security industry and system integrators. More optional functions are available in 10020 standard electromagnetic lock series.

### Specifications:

- Voltage Tolerance:  $\pm 15\%$
- Current Draw: 500mA@12Vdc ; 250mA@24Vdc (at temperature 20°C)
- Magnetic bond sensor monitor output (SPDT rated 3A@12V DC), remotely monitors the door lock or unlock status. (N.C. Output--Door opened; N.O. Output--Door closed)
- Status LED: Lights GREEN when the door is unlocked, lights RED when the door is locked.
- Operating Temperature: -10~55°C (14~131°F)
- Humidity: 0~95% non-condensing.
- Lock's surface Temperature (when the power is on):  $\leq$  current temperature +20°C
- Holding Force: Up to 1200 lbs (545 Kg)
- Dimensions:
  - Magnet:(L) 266(264), (W) 68, (D) 40 mm
  - Armature Plate:(L) 185, (W) 62, (D) 16 mm
  - Mounting Plate:(L) 266(264), (W) 40, (D) 5 mm
- Special Finishes for magnet and armature plate: Zinc
- Epoxy Potting Compound: E87252 (S), UL94V-0
- Weight (Approx.) : 4.8 Kg



### Regular Installation



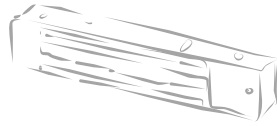
### Unique Anti-Residual design

When there is no power, there will be no holding force, and the push-off button inside the Armature Plate will pop out immediately to release the Electromagnetic Lock and the Armature Plate. The instant release circuit function will prevent residual magnetism between Electromagnetic Lock and the Armature Plate.

### UL Listed for US and Canada

Fire Exposure and Hose Stream Tests were conducted in accordance with the standard, "Positive Pressure Fire Tests of Door Assemblies," ANSI / UL 10B and 10C, uniform building code standard UBC 7-2 (1997).



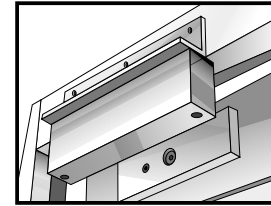
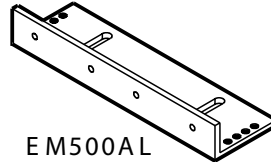
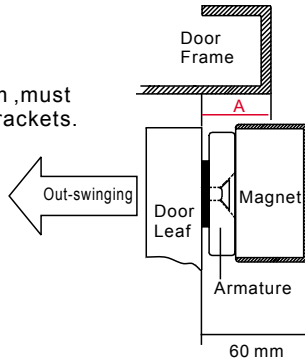


### Optional Brackets:

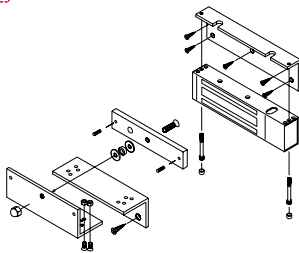
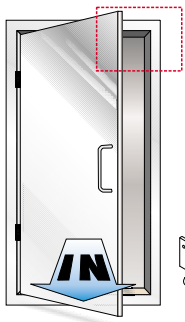
Identify the door swinging direction and inspect the door frame header to determine if bracket is required. A L- brackets, LZ- brackets may be required for the electromagnet depending on the frame header and swinging direction.

#### With L-bracket for narrow door frames

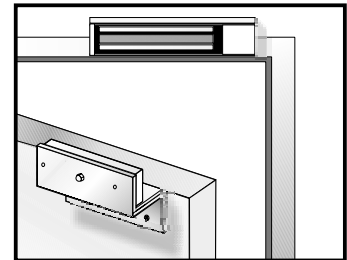
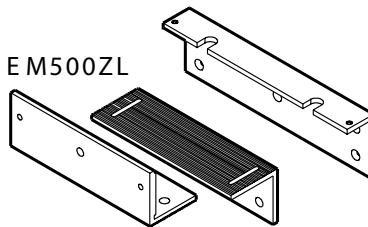
When "A" < 60 mm , must installed with "L" brackets.



#### With LZ-bracket for in-swinging doors



EM500ZL



### Warranty:

GEM Electromagnetic Locks are warranted against defects in material and workmanship while used in normal service for a period of 1 year from the date of sale to the original customer.

### Disclaimer:

The information and specifications printed in this manual are current at the time of publication. The GEM policy is one of continual development and improvement; therefore GEM reserves the right to change specifications without notice.

