

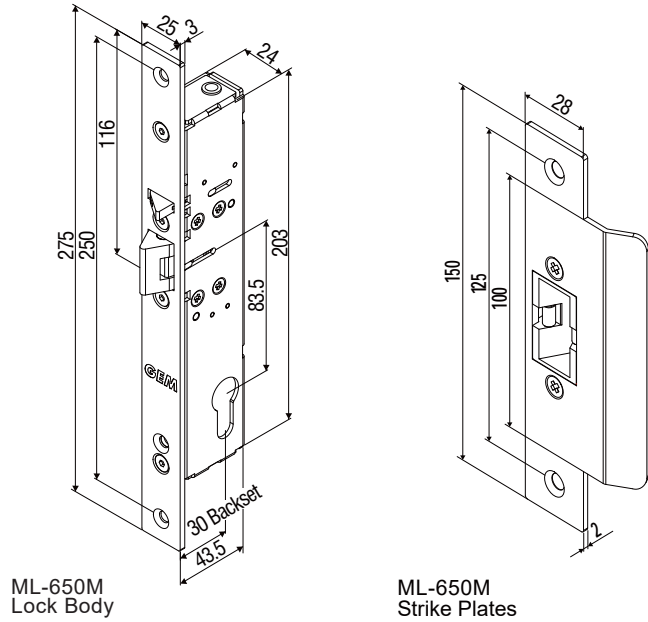
# ML-650 Electric Lock (with Mechanical Override) Installation Instructions

## Specifications

- Lock Mode: Fail-Secure
- Operating Voltage: 12~24VDC
- Current Draw: 600mA / 12VDC, 300mA / 24VDC
- Operating Temperature: -10°C~+49°C
- Humidity: 0~85% non-condensing
- Preload: 300 lbs of pressure strength
- Latch Throw: 13mm
- Solenoid Testing: Tested up to 250,000 cycles
- Relock Delay Time: 3 seconds
- Optional Cylinder: EYC-72

## Dimensions

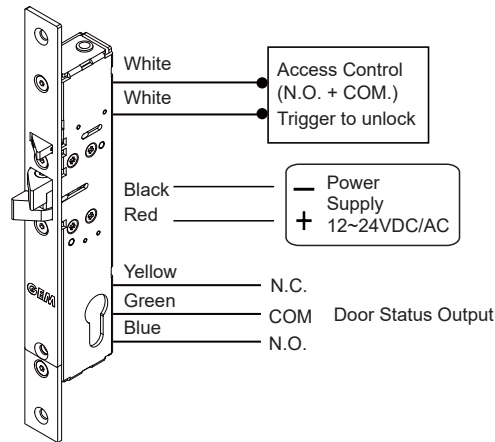
Unit:mm



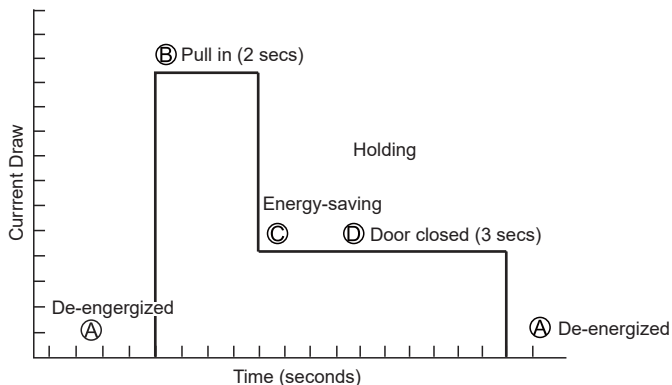
ML-650M  
Lock Body

ML-650M  
Strike Plates

## Wiring Diagram



## Circuit Description



A. De-energized: Door is in locked status.(Operating in fail-secure mode)

B. Pull-in: The electric lock is energized through access control devices.

(Please refer to the wiring diagram)

C. Energy-saving: After supplying power to unlock for 2 seconds, the current draw will drop to save energy. During this time, the electric lock remains unlocked.

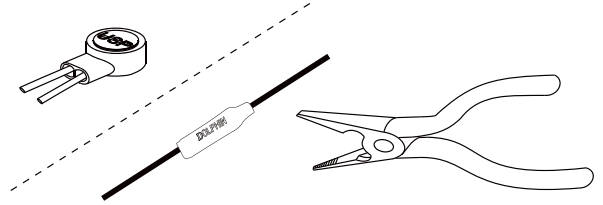
D. Door closed:

After door is closed, the NIB (deadlatch) will retract into the lock housing and press the internal micro switch. After door keeps closing for 3 seconds, the lock will be completely de-energized and the door will remain locked.

(Without keeping door closed for 3 seconds, the electric lock will not be de-energized and remains unlocked.)

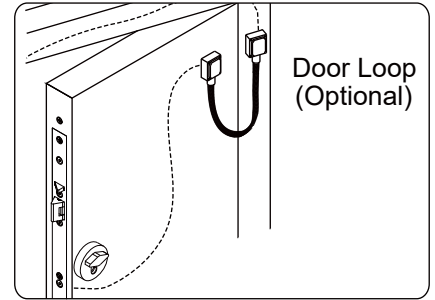
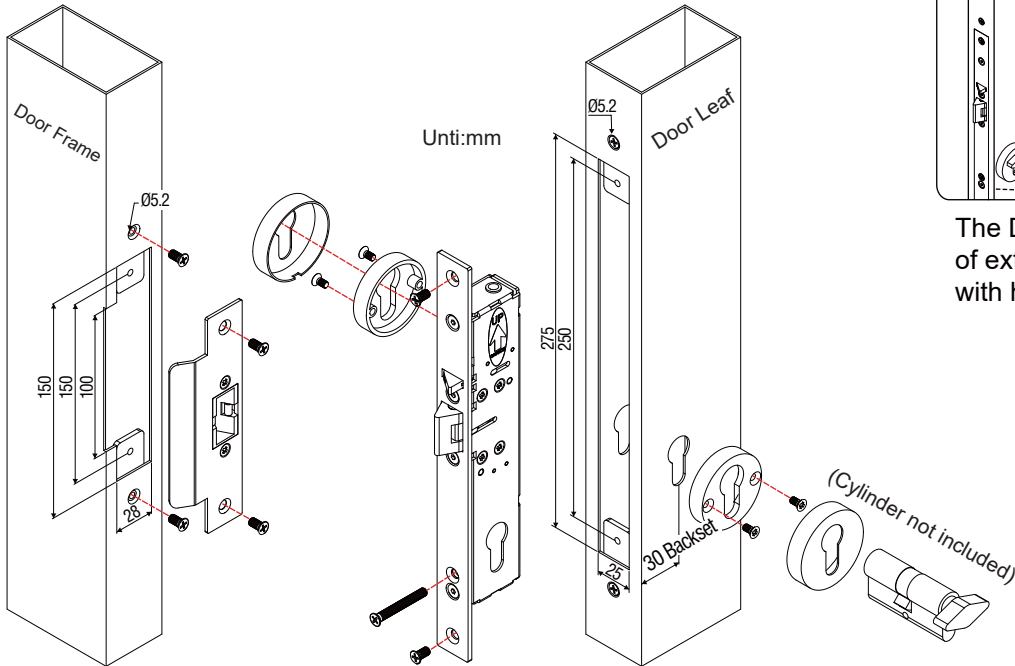
## Butt Splice (IDC) Connector

Using crimper or pliers and pressing the header of connector down to even position.



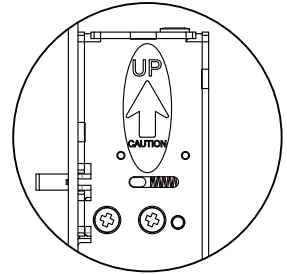
## Door Preparation

62mm long cylinder for doors up to 42mm thick  
72mm long cylinder for doors up to 52mm thick



Door Loop (Optional)

The Door Loop is for protection of extension wiring from damages with high security concerns.



Attention! Please ensure that the template is the correct way up

<p><b>1</b></p> <p>Align the center line (CL) of the lock body template with the CL of the door leaf. Ensure the CL of the strike plate template matches the lock body CL as closely as possible.</p>	<p><b>2</b></p> <p>Cut out mortise holes for the lock body and strike plate and drill holes according to the templates.</p>	<p><b>3</b></p> <p>Tighten the fixing lugs with screws.</p>	<p><b>4</b></p> <p>Cut the cylinder hole. (backset: 30 mm)</p>
<p><b>5</b></p> <p>Connect power cable to the lock and secure the lock to the door leaf.</p>	<p><b>6</b></p> <p>Install the cylinder hole cover.</p>	<p><b>7</b></p> <p>Install the cylinder.</p>	<p><b>8</b></p> <p>Affix the strike plate.</p>