Simple 1-Channel Installation (Non-PoE Setup)

This is the standard configuration using two separate power sources: one for the PLC "brain" and one for the high-current magnetic lock.

1. PLC Power (The Brain)

- **The Connection:** Plug a standard **12V DC power adapter** into the round barrel jack (or the green screw terminals labeled DC 7-36V).
- **The Result:** The status LEDs will turn on. The PLC is now ready to receive commands over the Ethernet cable.

2. Lock Power Loop (The Switch)

- **Source:** Take the **Positive (+)** wire from your large industrial 12V power supply.
- **To PLC:** Connect it to the **Middle Pin (COM)** of Channel 1.
- **From PLC:** Connect the **Red (+) wire** of your Magnetic Lock to the **Left Pin (NC)** of Channel 1.
- *Note: Using the NC terminal ensures the door stays locked by default.*

3. The Return Path (The Ground)

- **Direct Connection:** Connect the **Black (-) wire** of your Magnetic Lock **directly** back to the **Negative (-)** terminal of your large industrial power supply.
- **Important:** Do not wire this through the PLC green terminals.

Technician Logic:

- **Locked (Normal):** The PLC relay is **OFF**. Power flows from the COM pin to the NC pin. The magnet stays energized.
- **Unlocked (Action):** You send a software command to turn the relay **ON**. The internal switch moves away from the NC pin, cutting power and releasing the door.