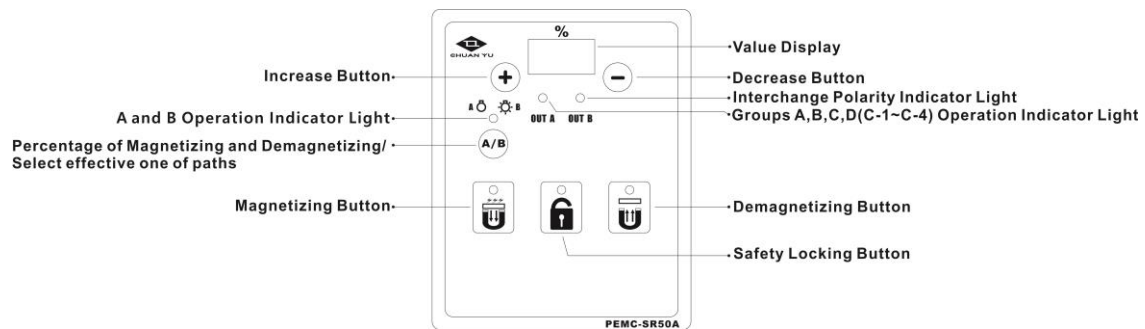


The Operations Manual of PEMC-SR50A Permanent Electromagnetic Chuck's Controller

1. Product Specification

- Input voltage :AC220V~440V
- 10%~100% of output DC voltage can be adjusted and set arbitrarily
- Power output :10~100%
- Max. current :70A
- Magnetization & demagnetization time :0.1~1.2 seconds, that can be set arbitrarily
- Can be controlled with external signal and easy to operate
- Dimension :Wx195mm Hx160mm Dx100mm

2. Panel Diagram & Description of Button



1. **Increase button** : Each press of the button increases the value by 1, and holding down the button will increase the value faster
2. **Decrease button** : Each press of the button decreases the value by 1, and holding down the button will increase the value faster.
3. **Button A/B** : ①For each path of output setting :The light is always on when pressing the button (A/B) to keep one second , and the display will show $\square -1 \sim 4$, with the function served as controller multi-path output type by selecting just one of paths of magnetization and demagnetization , and under such a display functional status ,then select the C-1~C-4 by setting the button (+/-) , with the range of setting is restricted in the basic path of the controller. For example, two paths can only give a single output to C-2. Using this function needs to be maintained in this status. ②Setting of magnetizing and demagnetizing intensity : Pressing the button (A/B) circulated to flashing lights as the magnetizing and demagnetizing intensity to set the button (+/-) ranging from 10~100%(percentage of output should be maintained under this function status, leaving the function will be 100% output) Pressing and releasing the button (A/B) repeatedly will circulate
4. **Magnetizing button** : It is required to work with the safety locking button
5. **Safety locking button**
6. **Demagnetizing button** : It is required to work with the safety locking button

3. Descriptions of Setting Function

1. **Magnetization** : Press "magnetizing button" + "safety locking button" for 3 seconds simultaneously to make the two indicator lights and operation indicator light OUT A flash , while the display will show C-1~C-4 output position.The lights of magnetizing button and safety locking button ,and operating indicator light will show up after the completion of magnetizing
2. **Demagnetization operation** : Press "Demagnetizing button" + "safety locking button" simultaneously for 3 seconds to make the two button indicator lights flash, and the display will show the corresponding positions of C-1~C-4 output positions.The lights of demagnetizing button and safety locking button, and operating indicator

light will show up after the completion of demagnetizing

3. **Magnetizing time setting** : Pressing safety locking button for 3 seconds until the code of $\square\square\square$ appears on the display ,then it can set time by pressing the button $\oplus\ominus$.Do not press any button after completing the setting ,and the setting value will be memorized automatically after 5 seconds
4. **Setting the interchange of magnetic chuck magnetization and demagnetization polarity** : Pressing the safety locking button for 3 seconds that mode 1 of time setting code $\square\square\square$ will appear on display, then pressing the safety locking button to mode 2. The display will show $\square\square\square$, then pressing the button $\oplus\ominus$ set as 2 that OUT B yellow light will flash on the upper right corner; if the remote operation box has been installed at the same time, the CPL yellow light on the upper right corner of the box will flash simultaneously that means the interchange of magnetization and demagnetization, and it will follow the marked pin polarity when yellow light on the upper right corner of the box does not flash, for example, path 1 gives an output of Pin 1 (+) 2 (0V) 3 (GND) and path 2 gives an output Pin 1 (+) 2 (+) 3 (0V) 4 (GND); when yellow light flashes, path 1 gives an output of Pin 1 (0V) 2 (+) 3 (GND) and path 2 gives an output of Pin 1 (0V) 2 (0V) 3 (+) 4 (GND).
5. **Abnormal condition codes**: 1. FUS Fuse blown 2. EFT Power transistor failure 3. $\square\square$ excessive output time
6. **PLC and external signal control** (For 9P computer ports)
 1. **Magnetization** : Pins 1,4(0V) present at least a 0.5 seconds of short circuit
 2. **Demagnetization** : Pins 2,4(0V) present at least 0.5 seconds of short circuit
 3. **Power level of percentage output that set in accordance with the display** : Pins 3,4(0V)present short circuit
 4. **100% output** : Pins 3,4(0V) present open circuit

4. Descriptions of Terminal Block Pins

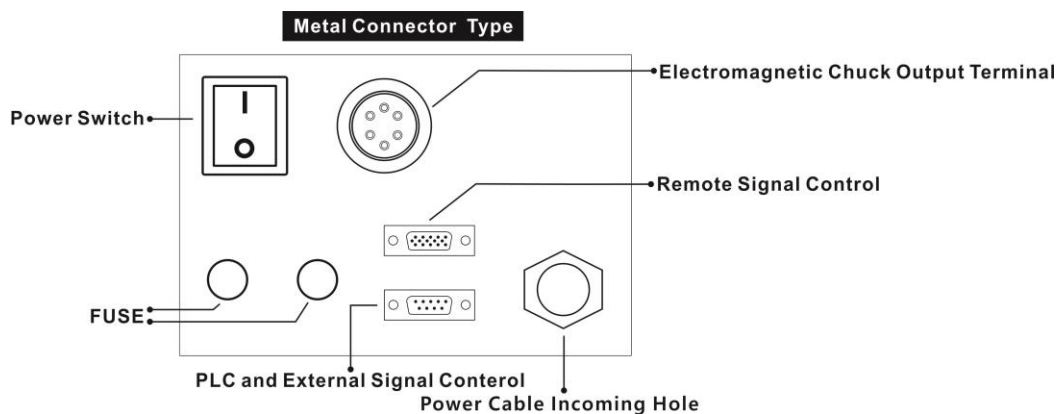
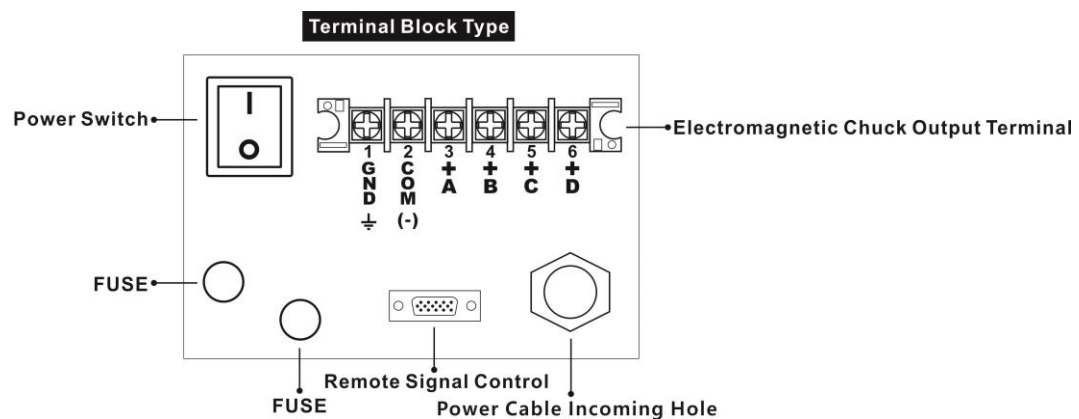


Diagram of PLC and External Control Pins

