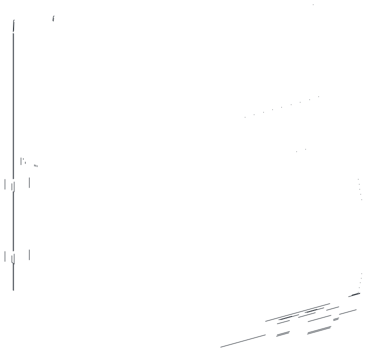

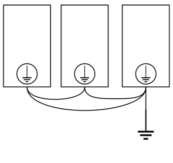

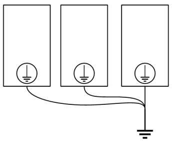

Figure 2-4 shows the wiring requirements for terminals. indicates the notice when wiring:

It is recommended to use a shielded twisted-pair cable, keeping far away from the power line;

Do not occur short-circuit between voltage terminals and current terminals in any mode.

The power supply can use the auxiliary output DC24V power supply of the main module, and can also use other power supplies.

The ground terminal is well connected;

Do not use the empty pin of terminal.

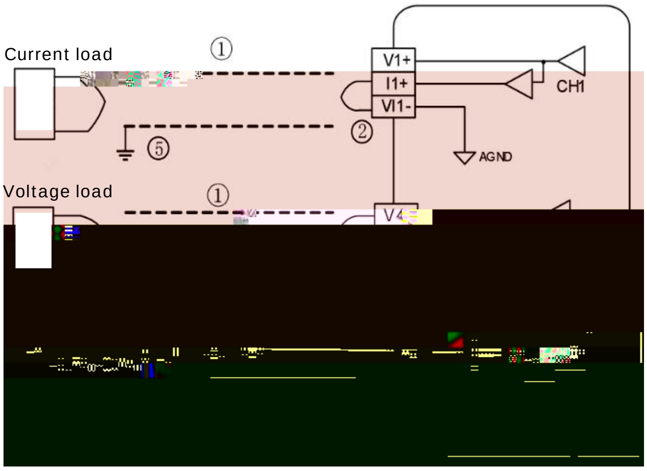

Fig 2-4 MU200-4DA terminal wiring diagram

It is necessary to calculate the sum of the current consumed by all power supplies of expansion modules before the connection operation to ensure that the current of all power supplies is less than the output current provided by the corresponding power supply of the main module.

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Environment temperature range of PLC: -5 55 . When the temperature exceeds 55 ° C for a long time, a well-ventilated place should be selected.

Place without corrosion, flammable and explosive gas and liquid.

Solid place without vibration.

This controller is designed for II standard installation environment and 2-level pollution occasions.

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Table 3-1 Performance specification

Item		Technical specification
Number of Analog quantity output		4 points
Range of Analog quantity output		Voltage -10 +10V Current 0 20mA 0 10V 4 20mA (0 ~ 10V and 0 ~ 20mA are synchronous) Scale is switched by upper machine
Resolution	Voltage	5mV
	Current	10uA
Conversion speed		2ms/ channel
Conversion precision		±1% full scale
Load impedance	Voltage	1K (Min.)
	Current	500 (Max.)
Isolation		The analog circuit and digital circuit are separated with a photoelectric coupler and the analog channels are not separated with each other.
Analog power		DC24V (-15% ~ 20%), allowed ripple voltage 5 % (Max.) 50mA (come from the basic module or external power supply)
24V power consumption (Bus)		20mA

Table 4-1 shows the terminal layout of the MU200-4DA, as shown in the following:

Table 4-1 Terminal definition of MU2000-4DA

Terminal	Signal name	Terminal	Signal name
V1+	voltage output+ of CH1	V3+	voltage output+ of CH3
I1+	current output+ of CH1	I3+	current output+ of CH3
VI1-	voltage&current output-of CH1	VI3-	voltage&current output-of CH3
V2+	voltage output+ of CH2	V4+	voltage output+ of CH4
I2+	current output+ of CH2	I4+	current output+ of CH4
VI2-	voltage&current output-of CH2	VI4-	voltage&current output-of CH4
●	NC	●	NC
24+	Analog power supply 24+	●	NC
24-	Analog power supply 24-	●	NC
PG	Protection Ground	●	NC

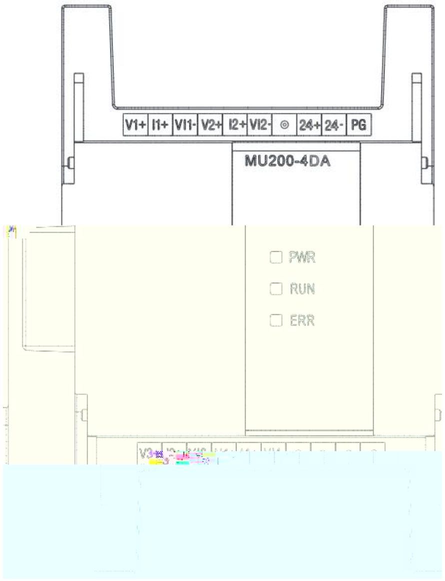

Fig 4-1 Terminal diagram of MU200-4DA

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Table 5-1 Panel indicator and function

Item	Function
PWR indicator	Connection status between expansion module and main module ON connection succeed OFF connection fail
RUN indicator	Mainly for fault of expansion module Fast flash(10Hz): operation in normal Slow flash(1Hz): module fault and operation error
ERR alarm indicator	Mainly for the application layer Normal: OFF Faulty ON (parameter configuration error, out of limit) Flash (communication error with main module)

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This module supports voltage (non-differential) and current output modes, of which the default digital quantity ranges -10000 to 10000 respectively. Users can set the digital quantity range to other numbers by using this function. For the calculation method, see Formula 5-1.

Among that = Output digital value corresponding to voltage or current

= Actual output voltage or current value

= Upper range

= Lower range

= Upper calibration

= Lower calibration

dĶőĀ È ɸ Table 5-2 Upper/lower limit of range in different mode

Mode	±10	0-10V	0-20mA	4-20mA
	10V	10V	20mA	20mA
	-10V	0	0mA	4mA

dĶőĀ è ɸThe default scaling limit is -10000 to 10000. The full output range in 4~20mA mode is 20mA or 4mA if the upper and lower limit of the scaling are set based on the default ±10000, as shown in the following.

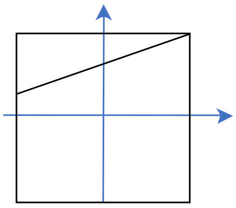

Fig 5-1 Scaling correspondence

Example: Set channel 1 to 4mA~20mA, scale to the digital quantity of -8000 to 8000, and close other channels and output 10mA in channel 1.

System setting mode: Click Configuration on the home page under Program Management Unit configuration, and configuration interface will pop up; Click on the Expansion module column, select the basic module and drag it to the configuration interface, and then select MU200-4DA in Special module, and place it on the Unit Configuration interface, as shown in Figure 6-1. In this case, you can set the parameters in the expansion module properties column.

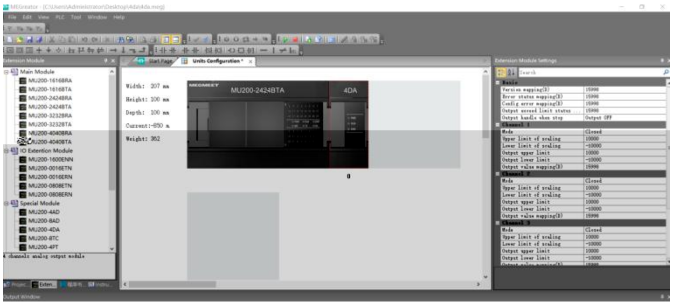

Fig 6-1 Configuration interface

Set the basic parameter register mapping and parameter register of channel 1, as shown below. Other channels are closed by default.

Table 6-1 Module Configuration

Basic	
Version mapping D	100
Error status mapping D	101
Configuration error mapping D	102
Output exceed limit status mapping D	103
Output handle when stop D	Output 0
Input channel 1	
Mode	4~20mA
Upper limit of scaling	8000
Lower limit of scaling	-8000
Output upper limit	10000
Output lower limit	-10000
Output value mapping (D)	10300

When output the voltage of 10mA though channel 1, then = 10mA = 20mA = 4mA = 8000 = -8000 It is shown by formula 5-1

When D104 is assigned to −2000, the channel 1 outputs 10mA voltage.

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1. Set the Version mapping register. Table 6-2 shows the version information.

Table 6-2 Version information

Register name	Description
Version information 16Bit	BIT0~3: MCU software version BIT4~7: FPGA software version BIT8~11: Hardware version BIT12~13: Reserved BIT14: 0 : Common module 1 : Custom module BIT15 : 0 : Release version 1 : Test version

2. Set the error status mapping register. Table 6-3 shows the error status.

Table 6-2 Error status

Register name	Description
Module error status 16Bit	Error when each bit is 1, normal when it is 0: BIT0: Module error and RUN flashes slowly BIT1: Error parameter setting BIT11: Output over-limit

3. Set the configuration error mapping register, which stores the ID of the wrong parameter when the parameter is incorrectly configured. Default: 0(Normal). Other: Error ID.

4. Set the output exceed limit status mapping register. Table 6-4 shows the channel correspondence.

Table 6-4 Output exceed limit status mapping register

Register name	Description
Output exceed limit status mapping register 16Bit	BIT0: Exceed limit flag of CH1 output BIT1: Exceed limit flag of CH2 output BIT2: Exceed limit flag of CH3 output BIT3: Exceed limit flag of CH4 output BIT8~15: Reserved

5. The output status when the PLC stops running. Output retention: keep at the last output value; Output 0: related to the mode, 0 ~ 10V is 0V, 4 ~ 20mA is 4mA, other modes are 0V or 0mA.

6. It is necessary to set the output range limits of the expansion module (after calibrating). When the output range limit occurs, the flag bit of the output exceed limit status mapping register will be set.

1. Check that the wiring of analog output meets the requirements;

2 Check that the expansion interface of MU200-4DA is properly inserted in expansion jack;

3. Check whether MU200-4DA is normally connected to the analog 24V power supply.

4. Check the application for making sure the operation method and parameter range are correct;

5. Check that the PWR indicator of MU200-4DA is ON and the RUN indicator blinks normally (10Hz) when set the MU200 basic module to RUN state.

In case of abnormality, check the following items:

●The status of the PWR indicator:

ON: connection correctly;

OFF: check the connection and basic module condition.

●The status of the RUN indicator:

Flash quickly(10Hz): MU200-4DA in normal operation;

Flash slowly(1Hz) or OFF: check the information of module status in element monitoring table by software.

●The status of the ERR indicator:

ON check the parameter configuration, output value and other conditions;

Flash check the expansion connection and restart;

OFF Normal.

Notice

1. The warranty range is confined to the PLC only.

2. Warranty period is 18 months, within which period Megmeet conducts free maintenance and repairing to the PLC that has any fault or damage under the normal operation conditions.

3. The start time of warranty period is the delivery date of the product, of which the product SN is the sole basis of judgment. PLC without a product SN shall be regarded as out of warranty.

4. Even within 18 months, maintenance will also be charged in the following situations:

   Damages incurred to the PLC due to mis-operations, which are not in compliance with the User Manual;

   Damages incurred to the PLC due to fire, flood, abnormal voltage, etc;

   Damages incurred to the PLC due to the improper use of PLC functions.

   Remove the PLC personally.

5. The service fee will be charged according to the actual costs. If there is any contract, the contract prevails.

6. If you have any question, please contact the distributor or our company directly.

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