Features:

1.Reliable operation: shielded twisted pair cable is adopted, which has stronger anti-interference ability and more stable long-distance multi equipment transmission and communication.

2.High precision: the adjustable output current signal range is 0mA - 22mA, and the digital display ensures the high precision of operation.

3.Better safety: equipped with short circuit protection and reverse protection, the current signal generator is very safe.

4.Wide application: it can be used for PLC panel debugging, equipment testing, frequency converter, servo motor speed regulation, etc.

5.Easy to install: light weight, compact size, easy to install guide rail, can be completed in a few minutes.

Product parameters:

DC 24V

Power supply voltage range: DC15V -- DC28V

AC AC220V (optional) power supply range: AC85-264V or DC110-370V

Power consumption<2w

Output current range: OmA -- 22mA (settable, factory setting 0-20/4-20mA)

Output regulation accuracy 0.1mA, error<0.05mA, load sampling resistance<500 Ω

Working environment: 0-40 ℃, relative humidity<80%

Package list:

Carton packaging

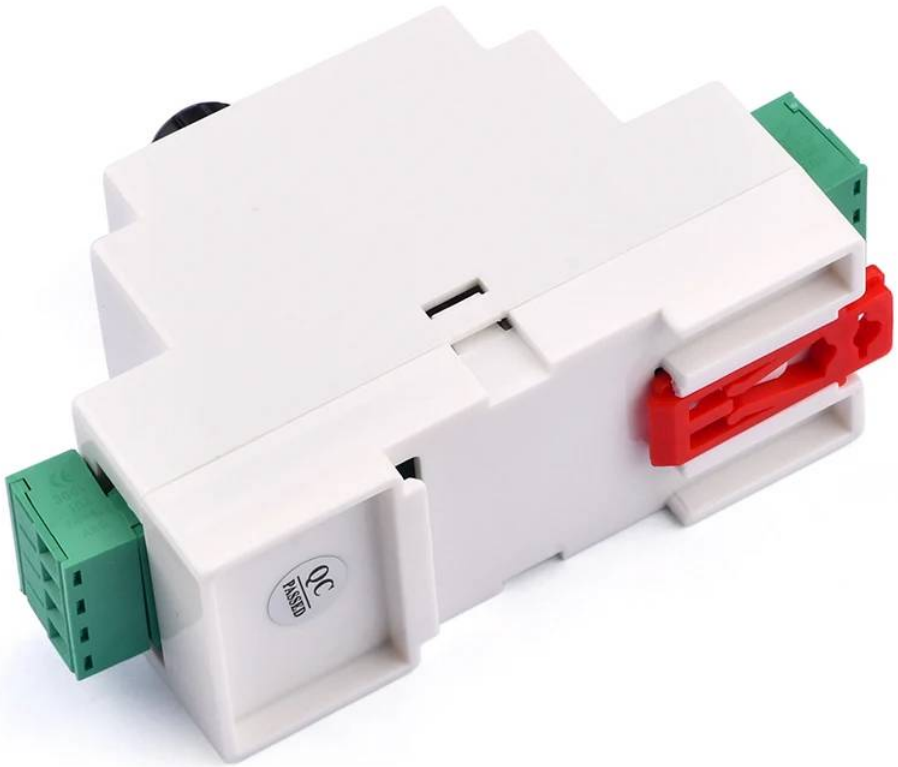
Host * 1


GND
OUT
VCC
GND
ACL
ACN
B-
A+


GND
OUT
VCC
GND
ACL
ACN
B-
A+


A+
B-
+
-
GND
OUT
VCC
GND


GND
OUT
VCC
GND
ACL
ACN
B-
A+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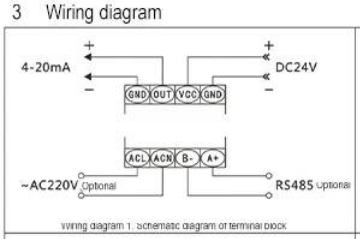
3 Wiring diagram

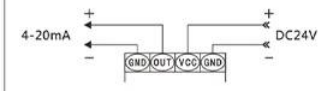


Wiring diagram 1: schematic diagram of terminal block

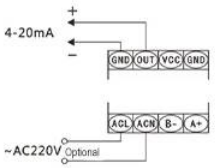
GND : Signal output ground
OUT : Signal output positive
VCC : DC power supply input positive
GND : DC power supply input ground (connected with signal ground)

ACL : AC power supply L
ACN : AC power supply N
B- : RS485 communication B-
A+ : RS485 communication A+

Wiring diagram 2: Terminal description



Wiring diagram 3: DC24V (15-28V) power supply



Wiring diagram 4: AC220 power supply

4 System operation (one clockwise rotation is "+", one counterclockwise rotation is "-", and pressing the knob is "OK")

4.1 Press and hold the knob for 2 seconds to enter the parameter setting, and the parameter number "F01" is displayed. When the parameter number is displayed, "+" and "-" rotate the knob to modify the parameter number, then press the knob to modify the parameter value, and then press the knob again to save and exit;

4.2 Parameter Description Table

No.	Explain	Remarks	Default
F01	Rough adjustment or fine adjustment	0: coarse adjustment 1: fine adjustment	1
F02	Output mode	0:0-20mA 1:4-20mA 2:0-22mA	
F03	Display mode	0: actual current 1: percentage 01000 2:50HZ	0
F04	Coarse adjustment mode plus impairment/each pulse	1-50 Addition/subtraction word of each pulse, no decimal point concept (150) × ten	1
F05	Fine adjustment mode plus impairment/each pulse	1-50 Addition and subtraction number of each pulse, no decimal point concept (1-50)	1
F06	485 Communication - Device ID	Slave address 1-127 (restart required)	1
F07	485 channel baud rate	0-2400 1-4800 2-9600 3-19200 4-38400 5 - 57600 (restart required)	2
F08	Illumination	0 (dark) - 6 (bright)	1
F09	Storage mode	0: Press the knob to save 1: Automatically save 3 seconds after adjustment	0
F10	4mA calibration value	-999 -+999 is for internal reference only, please be careful when modifying	
F11	12mA calibration value	-999 -+999 is for internal reference only, please be careful when modifying	
F12	20mA calibration value	-999 --+999 is for internal reference only, please be careful when modifying	

5 RS485 MODBUS communication (optional)

5.1 Adopt standard MODBUS-RTU message format, slave mode address 1-127 (factory setting 1), baud rate 2400-57600 (factory setting 9600), no parity check;

5.2 There is no 1209 terminal resistance inside. When the bus speed transmission distance is far and there are many devices, users need to connect the terminal resistance themselves to make the transmission more stable; The use of high-quality shielded twisted pair can increase the communication anti-interference capability

MODBUS-RTU message format, commands and examples

Rail type 0/4-20mA current source signal generator Q01H09B (0/4) (X) (M) User Manual

1 Main technical indicators

1.1 DC 24V power supply voltage range: DC15V-DC28V

1.2 AC 220V (optional) supply range: AC85-264V or DC110370V

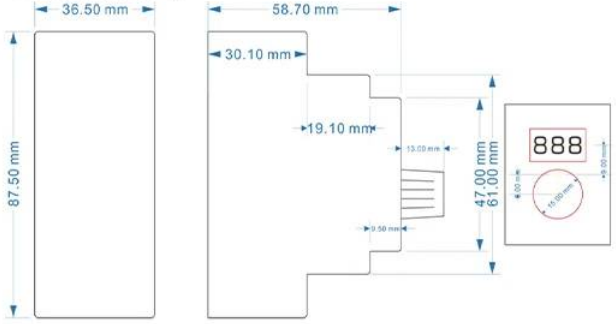
1.3 Power consumption<2W

1.4 Output current range: 0mA-22mA (settable, factory setting 0-20/4-20mA)

1.5 Output regulation accuracy 0.1mA, error<0.05mA, load sampling resistance<500 Ω

1.6 Working environment: 0-40 ℃, relative humidity<80%

2 Dimension drawing



485 slave address	1byte
Function code	1byte 03 or 06 command
Data	N byte
CRC check	2byte Standard CRC16 initial value O * FFFF

03 Query multiple registers command, for example: query 20 registers starting from address 0, and return 40 bytes of data

Send out	01 03 00 00 00 14 45 C5
Return	01 03 28 00 00 04 B0 04 B0 04 B0 00 01 00 00 00 01 00 01 00 02 00 00 00 00 00 01 03 20 00 0A 00 00 00 00 00 00 00 00 00 00 00 00 00 98 EE

6 Set a single register command. For example, set the value of register 3 to 2000 and return the command directly

Send out	01 06 00 03 07 D0 7A 66
Return	01 06 00 03 07 D0 7A 66

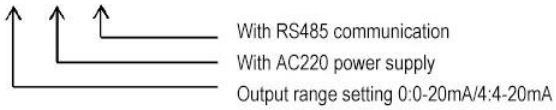
5.3 Register table

Register address	explain	Reading and writing	Remarks
0	Nothing		Some PLC data addresses start at 1, so they are not used
1	Current output nixie tube display value	r/w	Without decimal point
2	Output regulation range	r/w	Same as parameter table F001
3	Display mode	r/w	Same as parameter table F002
4	Device ID	r/w	Same as parameter table F004
5	Baud rate	r/w	Same as parameter table F005

5.4 The communication LED indicator flashes once when a packet of data is successfully received by the communication;

6 Model suffix description:

Q01H09B(0/4)(X)(M)



Give an example:

Q01H09B4 (factory setting 4-20mA/power supply DC24V/without communication)

Q01Ho9BoXM (factory setting 0-20mA power supply DC24V or AC220V/RS485 communication)

7 Precautions:

7.1 Please read this manual carefully before wiring

7.2 Please turn off the power supply before wiring, do not operate with electricity, pay attention to safety and avoid electric shock

7.3 Exceeding the range indicated by the technical dog index may cause the instrument to work abnormally or even be damaged