

Guide rail type 0/4-20mA Current signal generator

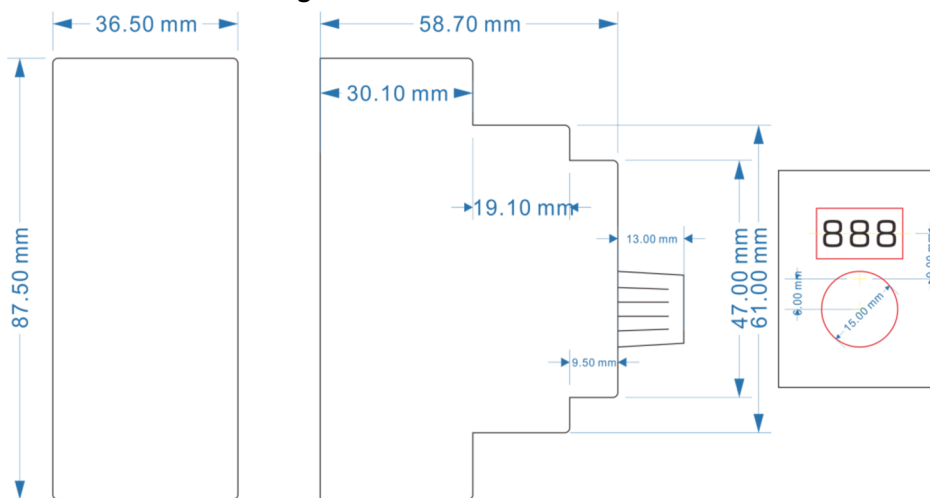
Q01H09B(0/4)(X)(M) User manual



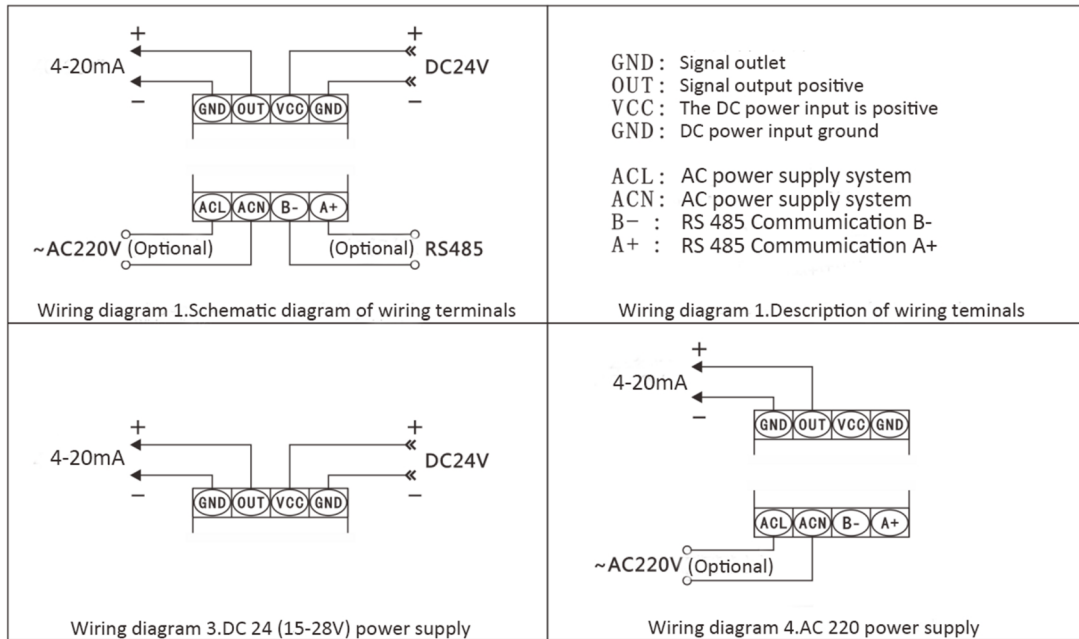
1 Main technical indicators

- 1.1 Direct current DC24V Supply voltage range: DC15V---DC28V
- 1.2 Alternating current AC220V (Optional) Supply voltage range: AC85-264V or DC110-370V
- 1.3 Power < 2W
- 1.4 Output current range: 0mA---22mA(can set, factory settings 0-20/4-20mA)
- 1.5 Output adjustment accuracy 0.1mA,Error<0.05mA,Load sampling resistance<500Ohm
- 1.6 Working environment: 0-40°C , relative humidity <80%

2 Dimensional drawing



3 Wiring diagram



4 System operation (Turn clockwise for "+" and counterclockwise for "-", press the knob for "OK")

- 4.1 Boot value saving: After adjusting the knob, press the knob to save the number of boot.
- 4.2 Hold down the knob for 2 seconds to enter the parameter setting, and the parameter number "F01" will be displayed. When the parameter number is displayed, rotate the knob "+" and "-" to modify the parameter number, then press down the knob to modify the parameter value, and then press the knob to save and exit.

4.3 Parameter Description Table:

Number	Explain	Comment	Default
F01	Coarse or Fine tuning	0:coarse adjustment 1:fine adjustment	1
F02	Output mode	0:0-10V 1:0-5V 2:2-10V 3:1-5V	
F03	Display mode	0:Actual voltage 1:percentage0-100.0 2:50HZ	0
F04	Coarse mode add or subtract values/per pulse	1-50 No Decimal Point Concept (1-50)×10	1
F05	Fine tuning mode add and subtract values/per pulse	1-50 No Decimal Point Concept (1-50)×1	1
F06	485 Communication-Device ID	Slave address 1-127	1
F07	485 Communication-Baud rate	0-2400 1-4800 2-9600 3-19200 4-38400 5-57600 (Need to restart)	2
F08	Display brightness	0(dark)---6(bright)	1
F09	Storage method	0:Press the knob to save 1:automatically save 3 Seconds after adjustment	0
F10	4mA Calibration value	-999 -- +999 Internal Reference, please be careful	
F11	12mA Calibration value	-999 -- +999	

		Internal Reference, please be careful	
F12	20mA Calibration value	-999 -- +999	
		Internal Reference, please be careful	

5 RS485 MODBUS Communication (Optional)

- 5.1 Adopt the standard MODBUS-RTU message format ,slave mode address 1-127(factory setting 1);
- 5.2 Baud rate 2400-57600(factory setting 9600),(8-2-n no check) or (8-1-o odd check);
- 5.3 There is no 120Ω terminal resistance inside. When the bus speed transmission distance is long and there are many devices, the user needs to connect the terminal resistance to make the transmission more stable. The use of high-quality twisted pair with shielding can increase the anti-interference ability of communication.

MODBUS-RTU Packet Format, Commands and Examples:

485 Slave address	1byte
Function code	1byte 03 or 06 order
Data	N byte
CRC Checkout	2byte Standard CRC16 Starter 0xFFFF

03 Query multiple registers command. For example, query six registers starting from address 0 and return 12 bytes of data

Send	01 03 00 00 00 06 C5 C8
Return	01 03 0C 00 00 00 C8 00 00 00 00 01 00 05 35 76

06 Set a single register command, for example, set the value of register 1 to 200, and directly return the command

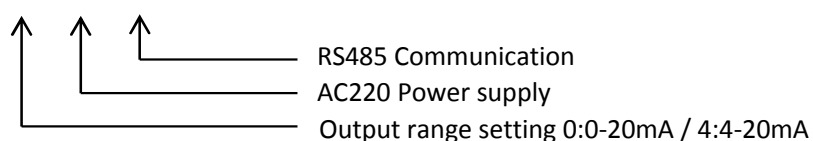
Send	01 06 00 01 00 C8 D9 9C
Return	01 06 00 01 00 C8 D9 9C

5.4 Register Table

Register address	Explain	Read write	Remark
0	Not have		PLC The data address starts at 1,so no
1	Current output nixie display value	r/w	No decimal point
2	Output control range	r/w	Same as parameter table F02
3	Display usage	r/w	Same as parameter table F03
4	Equipment ID	r/w	Same as parameter table F06
5	Band rate	r/w	Same as parameter table F07

6 Model suffix description:

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



Give an example:

Q01H09A5 (factory settings 0-5V /Power supply DC24V / No-tape communication)

Q01H09A10XM (factory settings 0-10V/Power supply DC24V or AC220V/RS485)

7 Precautions:

- 7.1 Please read this manual carefully before connecting cables
- 7.2 Please turn off the power before wiring, do not operate with live, pay attention to safety, beware of electric shock
- 7.3 Exceeding the demonstration range of technical indicators may cause abnormal operation or even damage to the instrument