NG/NB-400 Intelligent 4-bit digital voltage/ammeter Operating instruction

This product before use，Please read the instruction carefully，For proper use，And keep it safe.，For quick reference。

◆Pay attention to the operation◆

The instrument can be cleaned after power off.

Please use soft cloth or cotton paper to remove stains on the monitor.

The monitor scratches easily, Do not wipe or touch with hard objects.

1. Product Confirmation

This product is suitable for all kinds of automatic control devices、voltage and current indication for power control devices and various automatic mechanical equipment

This product uses microprocessor (CPU) as the core of the instrument, is a kind of intelligent instrument，very easy to use, it is the best replacement product of pointer meter and analog digital display meter。

This product conforms to "Q/SQG01-1999 Intelligent digital display regulator" Specification of standard.

Please refer to the code table below to confirm whether the delivered product is exactly the same as the model you selected.

■Product Code

N□□-4□□ □-□ □-□ □
①② ③④ ⑤-⑥ ⑦-⑧ ⑨

①Shell Color	②Panel Size	③Additionl Features	④Input Type	⑤–⑥ Input Signal	⑦-⑧ Display Range	⑨Unit
G：Gray	D：96×96	0：No		0~20mV		
B：Black	H：96×48	1：Upper limit alarm		0~75mV		
	F：48×96	2：lower limit alarm		0~200mV		
	E：72×72	3：Upper and lower limit alarm	6：Dc voltage	0~5V	1、-1999~9999 （ Communication only 0~9999）Any selection within the range, Or set by the user;	mV V mA A Pa kPa MPa R.P.M H2O Hg
	L：72×36			1~5V		
	G：48×48			0~10V		
	M：48×24			0~10mA	2、The position of the decimal point is set arbitrarily;	
			7：Dc current	0~20mA		
				4~20mA		
			8：Ac voltage	0~200V	3、If the input is identical to the display, this section is ignored.	
				0~500V		
			9：Alternating current	0~5A		
				Can be customized		Can be customized

Note：1. Panel sizeL（72*36）Upper limit alarm only；
2. Panel sizeM（48×24）No AC voltage and current input , No alarm output.

2. The Installation

2.1 Matters needing attention

（1）The meter is installed in the following environment
Atmospheric pressure：86_106kPa.
Environment temperature：0_50℃.
Relative humidity：45_85%RH.

（2）Attention should be paid to the following
Situations when installation.
Direct vibration or impact of the main structure.
Pollution by water, oil, chemicals, fumes or steam.
Excess dust, salt, or metallic powder
Dewcondensation caused by sharp changes in
ambient temperature. Air conditioning blows straight.
Corrosive and flammable gases. The direct sunlight.
Thermal radiation

2.2 The installation process

（1）Punch rectangular square holes on the disk surface according to the
Hole size for mounting the meter.

（2）When multiple meters are installed, the distance between the left and right holes should be greater than 25mm;The distance between the upper and lower holes should be greater than 30mm.

（3）Insert the meter into the hole on the disk surface and lock the mounting bracket

2.3 Instrument Panel

3. Instrument wiring
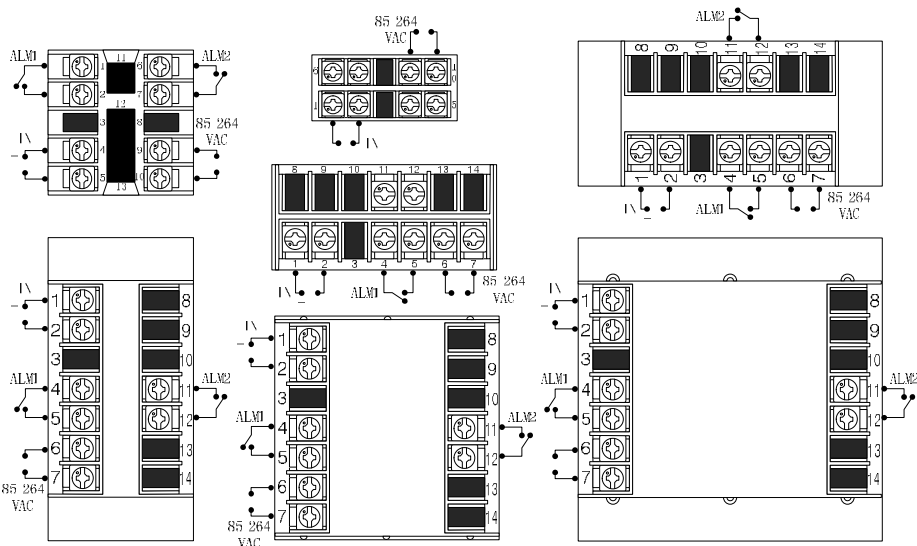
4. Parameter adjustment instructions

4.1 Parameter description table

Code	Code	Set Range	Instructions	Initial Value
LCK	Combination Lock	0～100	3: Allows you to modify menus Others: Cannot modify parameters	0
UdP	Decimal Osition Set Up The	0～3	0：No decimal point; 1：A ten-digit number with a decimal point; 2：A hundred number with a decimal point; 3：Thousands with a decimal point。	0
S-UL	Range Lower limit setting	-1999～9999 （decimal point withUdP）	Set the lower limit of the measurement range	0
S-UH	Range Upper Limit Setting	-1999～9999 （decimal point withUdP）	Set the upper limit of the measurement range	300
Pb	Input Zero Correction	-1999～9999 （decimal point withUdP）	Corrects to zero on input of lower bound signals，For example, when a lower limit signal is input, Display is 5, then PB should be set to -5.	0
Kb	Input Limit	-1999～9999	Correct to the specified value when input	0

	Correction	（decimal point withUdP）	running signal，For example: when the input running signal，It should show 1600，But if it actually shows 1592, KB should be set to 8.	
AL1	Alarm 1 Setting	-1999～9999 （decimal point withUdP）	Set the value of alarm 1, see alarm mode 1	300
AL2	Alarm 2 Setting	-1999～9999 （decimal point withUdP）	Set the value of alarm 2, see alarm mode 2	500
dF1	Alarm 1 Return error	-1000~1000 （decimal point withUdP）	Set alarm 1 return difference value, see alarm mode 1	2
dF2	Alarm 2 Return error	-1000~1000 （decimal point withUdP）	Set alarm 2return difference value, see alarm mode 2	2
AL1t	Alarm 1 Delay	0~9999 （1/2 seconds）	When alarm 1 occurs，Relay 1 operates after AL1T time delay, resolution is 0.5 seconds; Then the relay 1 will operate after the delay of 15*0.5=7.5 seconds	0
AL2t	Alarm 2 Delay	0~9999 （1/2 seconds）	When alarm 2 occurs, relay 2 operates after AL2T time delay, with a resolution of 0.5 seconds; If AL2T =15, relay 2 will operate after delay of 15*0.5=7.5 seconds	0
SA1	Alarm 1 Type Setting	0---7	0：Alarm 1 off.1：Upper limit alarm，When PV>SA1, alarm 1 relay pulls, when PV< AL1-DF1, relay 1 release.2：Lower limit alarm, when PV< AL1, alarm 1, relay 1 pull, when PV>AL1+ DF1, relay 1 release. 3~7: Alarm 1 off.	1
SA2	Alarm 2 Type Setting	0---7	0：Alarm 2 off。1：Upper limit alarm，When PV>SA1, Alarm Relay 2 pulls, when PV< AL1-DF1, Relay 2 releases。2：lower limit alarm，When PV< AL1, Alarm 2 Relay 1 pulls, when PV>AL1+ DF1, Relay 2 releases. 3~7: Alarm 1 off.	1
FILt	Filter Coeffients	0~250	Small numbers are quick but easy to fluctuate, while large numbers are vice versa.	200

4.2 Operating Steps

Enter the following menu，The order for：Long press ⊜ Key for 2 seconds，Show the LCK code, Click SET to display its value，According to the ⊗or⊗ Key to modify its value；then ⊜ Key to display the UDP code，then ⊜ Key to display its value, According to the ⊗or⊗key You can modify the value……，Verify that all parameters have been modified until the SA2 code has been modified，Go into normal mode. In menu mode，long ⊜ Press 4 seconds to exit the menu mode；And in this mode，Without any operation, it will automatically exit menu mode after 20 seconds。

5. Main technical parameters

5.1 Basic technical parameters of instrument

Biggest Show	－1999~9999（AC displays valid values），Decimal point position arbitrarily set, overflow display OOO
Conversion Rate	2.5 times per second
Frequency Range	40~200Hz（For AC input only）
Dielectric Strength	1500VAC 1min
Insulation Resistance	500VDC ≥100MΩ

5.2 Main technical parameters

The Input Signal	Input Impedance	Accuracy Of Measurement	Maximum Permissible Input
Dc Voltage	≥5MΩ	0.5%F.S±1dig	At least 5V or twice the input Signal
Dc Current	250Ω±1%		
Ac Voltage	2mA voltage transformer	0.5%F.S±2dig	Two times the input signal
Alternating Current	5A current transformer		

5.3 Instrument customization

Custom meters must clearly indicate the type of input signal（Such as DC voltage, DC current, AC voltage, AC current, resistance change or claim sensor model specifications) And measuring range (such as 0~ how much V, 0~ how much A, 0~ how much Ω, etc.).

6. Instrument maintenance and preservation

6.1 Instrument maintenance

Within eighteen months from the date of invoice，Due to manufacturing quality failure by the factory responsible for the full warranty，If the damage is caused by improper use, the factory shall charge the repair cost，Our instrument lifelong maintenance。

6.2 Instrument Preservation

The instrument should be stored in a dry and ventilated place without corrosive gas under the condition of complete packaging。

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