

DS3 Series Intelligent Sensor Meter Instruction Manual

Thanks a lot for selecting Sanyou products! Before operating this instrument, please carefully read this manual and fully understand its contents. If have problems, please contact our sales or distributors whom you buy from. This manual is subject to change without prior notice.

Warning

Please do not turn on the power supply until all of the wiring is completed. Otherwise electrical shock, fire or malfunction may result.

Do not wire when the power is on. Do not connect the unused terminals. Do not turn on the power supply when cleaning this instrument. Do not disassemble, repair or modify the instrument. This may cause electrical shock, fire or malfunction

Use this instrument in the scope of its specifications. Otherwise fire or malfunction may result.

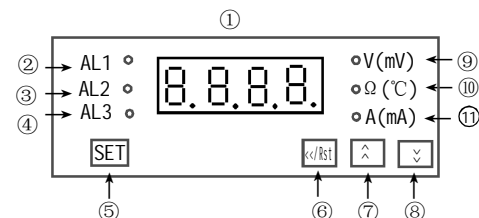
Caution

This instrument should be installed in a domestic environment. Otherwise electrical shock, fire or malfunction may result. The operating temperature environment should be between 0 (32F) to 50 (122F). To avoid using this instrument in environment full of dust or caustic gas.

To avoid using this instrument in environment of strong shock or concussion.

To avoid using this instrument in environment of overflow water or explosive oil.

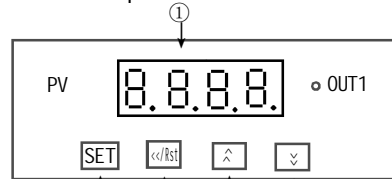
Output should start in about 10 seconds after power on when the instrument has control output function.



Applications

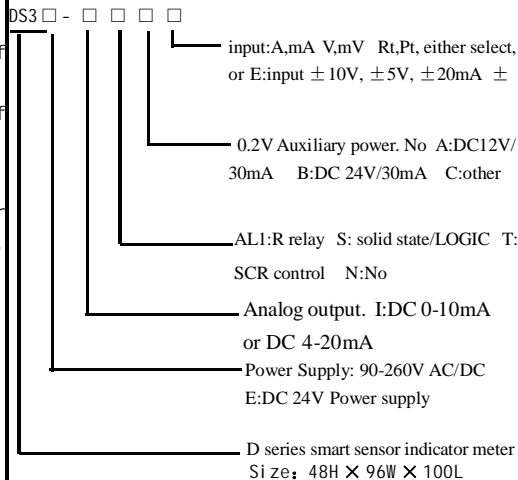
The instrument can measure any range of Current or Voltage signal input. The user can select data remained or top value remained. The instrument can be use with 2 wire transmitter, pressure sensor, 4 wire weight sensor and so on. For non-linear input, the instrument can process for 20 stages. As well the instrument can be with RS485 communication. The input, output and the power supply is isolated.

Name of parts



- ① Measured value (PV)/Various parameter symbols
- ② Indication lamps for Alarm 1 or analog output
On: Output Off: No alarm
- ③ No use
- ④ No use
- ⑤ Select/Confirm key
- ⑥ Shift/Clear /Reset key
- ⑦ Up key
- ⑧ Down key
- ⑨ Vol fage On: display V. Flash: mV
- ⑩ Resistance/temperature On: display Ω. Flash: °C
- ⑪ Current On: display A. Flash: mA

Models



- ★ The factory setting of or ±10V ±5V ±20mA ±0.2V input is 4-20mA, 0-10V, 0-75mV or mA/Pt/Rt. If the customer needs other input signal, please contact the manufacturer or your local distributors.
- ★ High Voltage/Current input or data remained function need special order.
- ★ AL3 also can be use as analogue output, but you can select only one of them, but not both.

★ Non-Linear input need special order

Input Signals selection

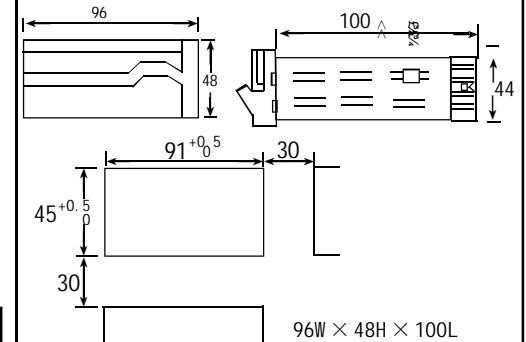
Input signal types	Range	Input impedance	Factory setting
mA	0~1mA, 0~10mA, 4~20mA	≤150Ω	4~20mA
V(AV/DV)	0~5V, 0~10V, 0~500V	≤200KΩ	DC 0~10V
mV	0~10mV, ±100mV	≤2MΩ	0~75mV
Rt	0~400Ω 0~10K	≤0.2mA	0~400Ω
	Cu50 Cu100 -50~150°C		
Pt	-200~650°C	≤0.2mA	Pt100
10V	-10V~10V	≥200KΩ	10V
5V	-5V~5V		
20mA	±4mA~20mA		
0.2V	-0.2~0.2		

★ The factory setting of the input is 4-20mA, 0-10V, 0-75mV or mA/Pt/Rt. If the customer needs other input signal such as 0-4000hm, Pt100, please contact the manufacturer or your local distributors.

Specifications

Power supply	90-260V AC or 18-30V AC/DC
Consumption	≤5VA
Accuracy	0.3%F.S ±2digit
Sampling rate	≤8 times/second
Alarm	Relay: NO AC 250V/3A or DC 30V/3A cos=1
Input	refer the input signal selection
Analogue	0-10V or 4-20mA, free set for control output range by software
Auxiliary Power	DC 12/24V/30mA
Communication	RS232 or RS485 for option

Dimensions



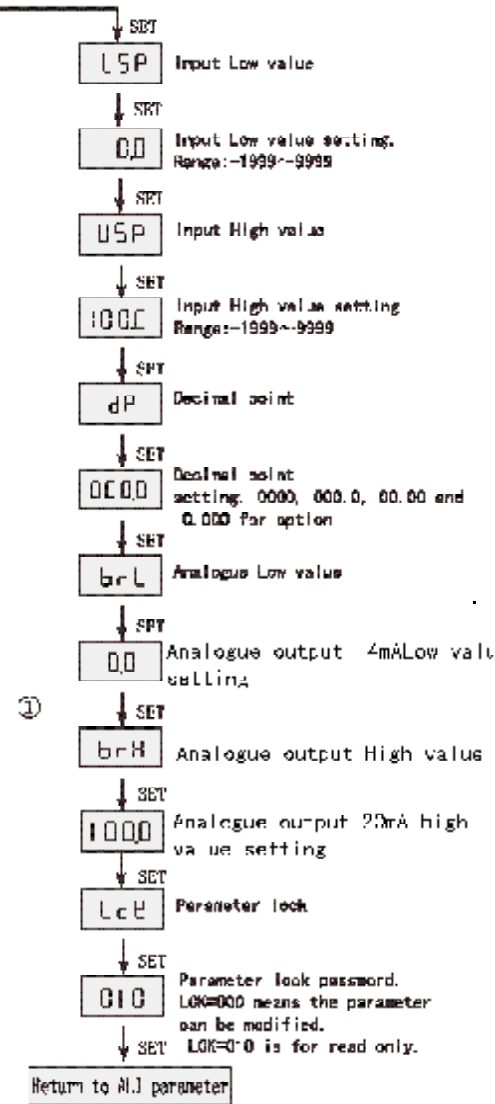
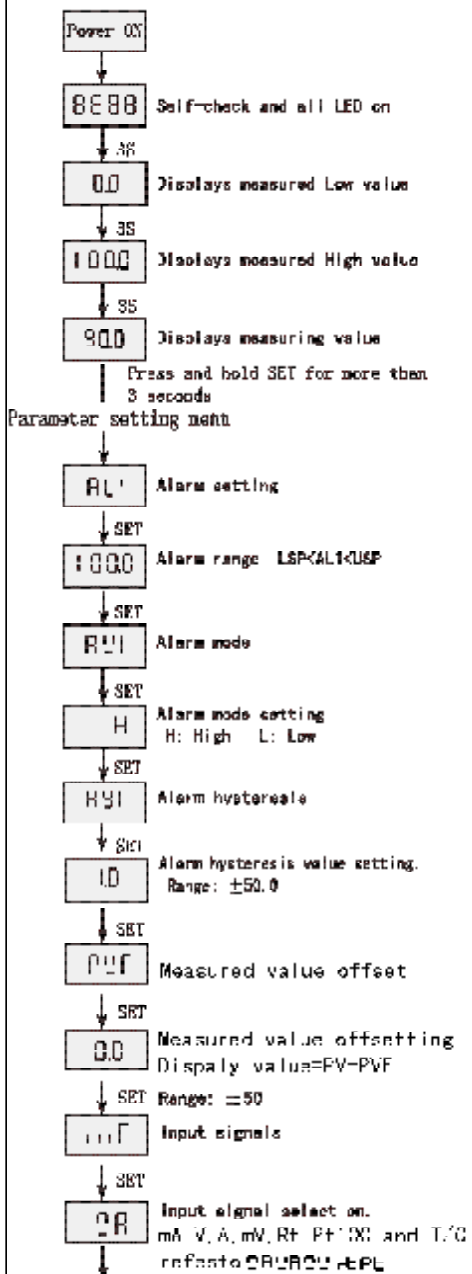
Parameter setting

1. Alarm setting: In the displaying estate, press and hold SET key for more than 3 seconds, enter alarm mode parameters setting menu. Press <</RST key, LED flashes, press / key to modify, and then press SET key to confirm. Press SET key to read the following parameters one by one.
2. Zero point clear: In the displaying estate, without key operation, when the input zero point, press and hold <</RST key for more than 2 seconds. It is for the sensor zero point clear.
3. The instrument will return to the measuring estate without any operation for 25 seconds.

Special Function

The instrument can be input by up to 2 signals, the up and down LED can display the measuring value. The instrument can calculate the two input value, so it also can be used as a watt meter.

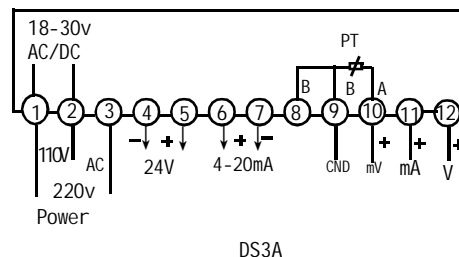
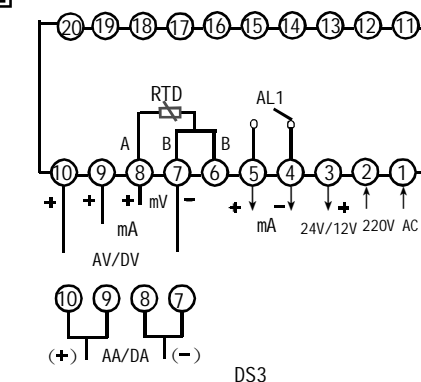
Operation process



Note: The parameter value show on this manual is the factory setting value.
 ① Please attention that alarm and analogue is for option. If you select alarm, it should not have analogue any more. If you select analogue, it should not have alarm any more.

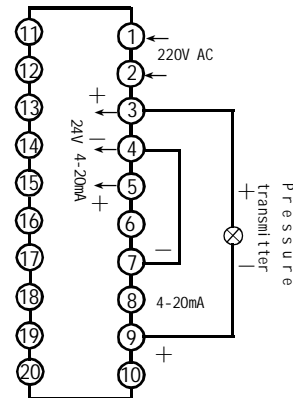
① only select alarm or analog output. Have alarm, no analog output. Have analog output, no alarm.

Terminal connection

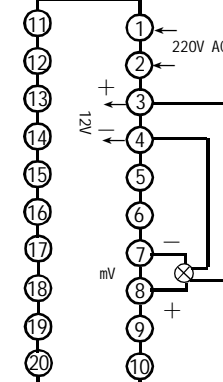


Applications example

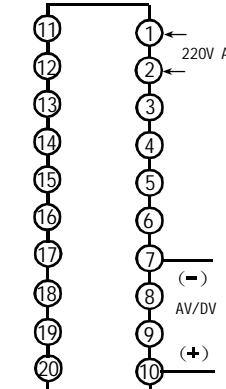
1. connection 2 wire pressure transmitter, request supply DC 24V/22mA auxiliary power, and have isolation analog output. 4-20mA output, software select mA input.



2. connection resistance change pressure transmitter, request DC 12V/30mA bestir voltage pressure transmitter bestir voltage for 2mV/V output. software select mA input.



3. measure AC DC Voltage input connection: example: 600V. DV500V



4. measure AC DC current input connection: example: AA5A, DA5A.

