Aposun CHDS4A Series Universal Input Digital Panel Meter User Manual

Contents

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Product Information

The CHDS4A series Universal Input Digital Panel Meter is a versatile instrument that can accept various types of signals including 4-20mA, 0-10V, 0-75mV, TC/RTD, and load cell. It is widely used in different applications such as temperature, pressure, weighting, resistance, current, and voltage measurement. This digital panel meter also provides 20-stage programmable settings for non-linear input. The input, output, and power supply are isolated from each other which ensures safety and accuracy in measurements. The instrument has a model number CHDS4A and comes in a standard size of 48W*48H mm. It features a universal input type with default input options of 4-20mA, 0-10V, and 0-75mV. The user can choose other input options by specifying them during ordering. The instrument has two options for aux power supply, 12V DC or 24V DC. There are three options for the alarm function – relay, solid state (SS), or none. The instrument also has an analog output function that can be chosen along with the alarm function.

Product Usage

Before using the CHDS4A series Universal Input Digital Panel Meter, it is essential to read the user manual carefully to understand its features and functions. Here are the steps to use the instrument:

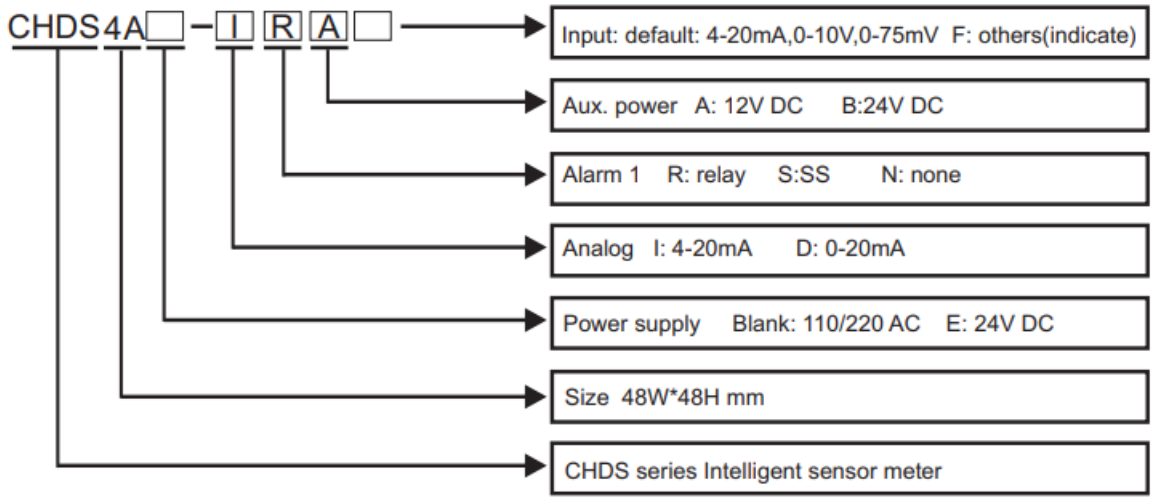
1. Connect the power supply according to the specifications mentioned in the manual.
2. Select the input type that matches your signal source.
3. If your signal is non-linear, set up the 20-stage programmable settings as per your requirement.
4. Select the analog output or alarm function that suits your application.
5. Once all functions are set up correctly, start measuring the signal.

It is important to note that the input, output, and power supply are isolated from each other, ensuring safety and accuracy in measurements. If you face any issues or have any questions about the instrument’s usage, please refer to the user manual or contact the manufacturer for assistance.

First of all, thank you for using our qualified products. Please read this manual carefully before use so that you

can fully understand and properly use the instrument

Model number and ordering info



Note: Analog output and Alarm functions, you can choose any one of it.

Technical specifications

The instrument accepts many types of signals input as 4-20mA, 0-10V, 0-75mV, TC/RTD, load cell, etc.. This makes it is widely used in different applications , such as temperature, pressure, weighting, resistance, current and voltage measurement. We also provide 20-stage programmable setting for no-linear input. The input, output and power supply are isolated from each other.

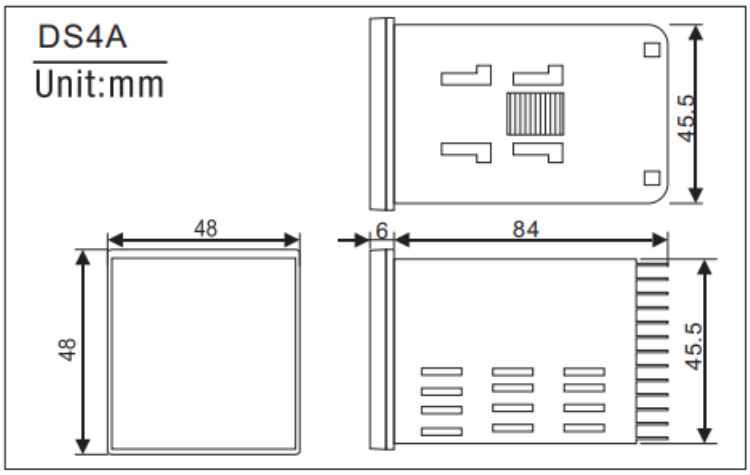
Power supply	110/20V AC or 24V AC/DC Consumption: ≤5VA
Accuracy	0.3%F.S ±2 digits
Sampling speed	≤8 times/sec.
Alarm	Relay, 250V/3A AC or 30V/3A DC cos =1
Input	refer to the input signal chart
Analog	0-10V/4-20mA set output range by software
Aux. power	12/24V 30mA DC

Input signal chart

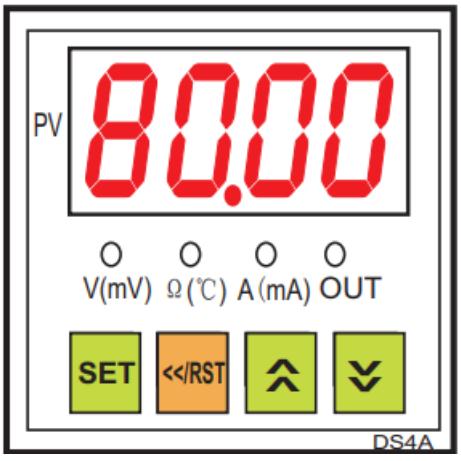
Input signal	Temp range	Input impedance	Factory set
mA	0~1mA,0-10mA, 4-20mA	≤150Ω	4-20mA
V(AV/DV)	0~5V, 0-10V,0-500V	≤200KΩ	0-10V DC
mV	0-10mV, ±100mV	≤2MΩ	0-75mV
RT	0-400Ω, 0- 10KΩ	≤0. 2mA	0-400Ω
	Cu50, Cu100 -50~150℃		Indicate when order
PT	-200~650℃	≤0. 2mA	Pt100
10V	-10V ~ 10V	≥200KΩ	10V
5V	-5V ~ 5V		
20mA	±4mA~ 20mA		
0.2V	-0.2~ 0.2		

Remark: the factory setting of the input signal is 4-20mA, 0-10V,0-75mV, If the customer needs other signal input, please contact the manufacturer or the local distributor.

Size and mounting

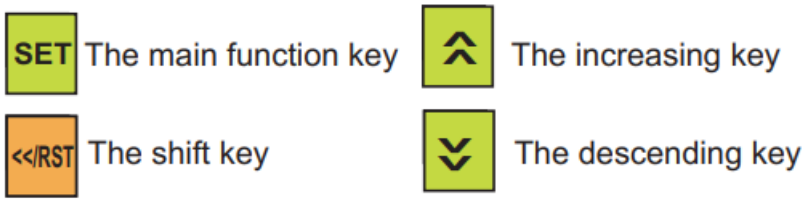


Panel description



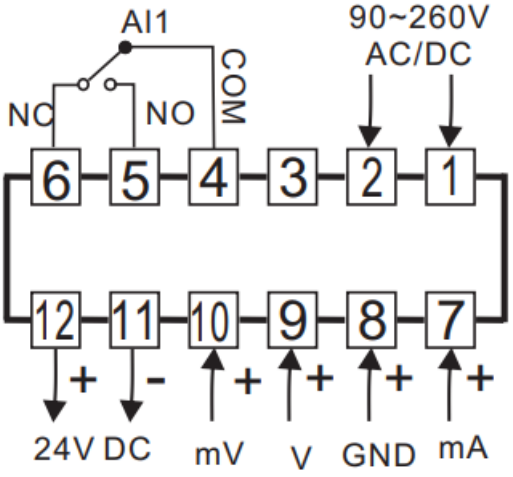
- **PV window:** display PV and parameter notation

- **Input Indication lamps:**
- **V(mV):** signal input lamp
- **ON:** V signal
- **flash:** mV signal
- **Ω(°C):** signal input lamp
- **ON:** resistance signal
- **flash:** TC/RTD signal
- **A(mA):** signal input lamp
- **ON:** A signal flash: mA signal
- **OUT:** output indicate lam,:
- **ON:** active
- **OFF:** inactive

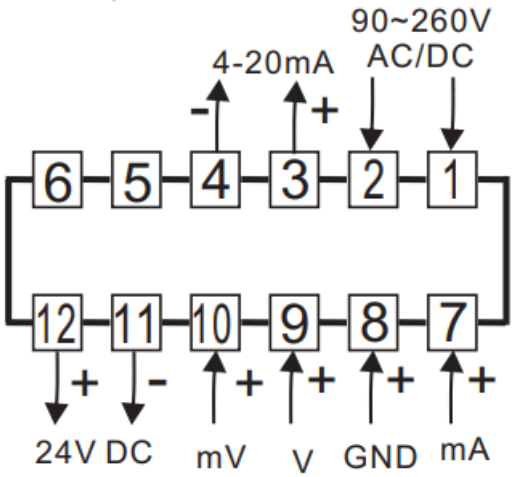


Wiring diagram

Model: CHDS4A-RB



Model: CHDS4A-IB

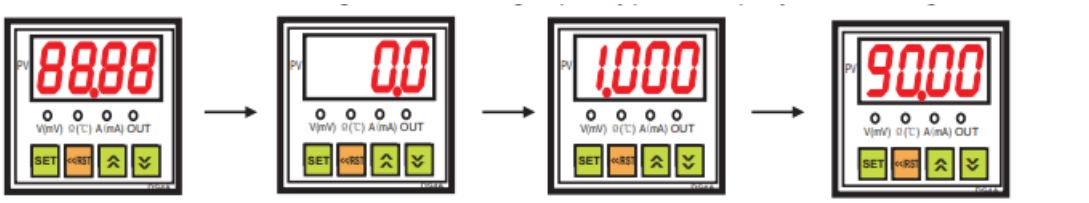


Remark: Above is a general wiring diagram. Please always refer to the connection diagram on the side of the controller.

Setting and programming

Power on initialization

Power on for self-checking and showing input type & display value range.



Power on all LED light up

Display measure low value

Display measure high value

Display measuring value

How to configure all configurable parameters

Press <</RST key to shift the flashing digit

Press ⩝ key to increase the numeric /code of a parameter

Press ⩛ key to decrease the numeric/code of a parameter

Press SET key to save the changes and move to the next parameter

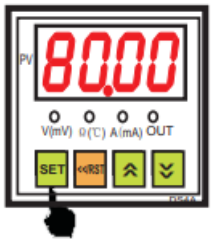
Zero point clearance

Under the displaying estate, press <</RST key for 3 seconds

Remark: The instrument will return to the measuring estate if no a ny operation for 25 seconds

Parameter menu

Press SET for 3 seconds to enter the parameter setting menu



Notation	Name	Description	Default	Remark
AL1	Alarm 1 value AL1	LSP≤AL1≤USP	100.0	Alarm value for alarm 1
AM1	Alarm 1 mode AM1	H,L	H	H: High alarm L: Low alarm
HY1	Alarm hysteresis for alarm 1 HY1	-50 to 50	1.0	Hysteresis value for alarm 1
PVF	Offset value PVF	-50 to 50	0.0	PV value= measuring value - PVF
INP	Input sensor code selection INP			

Symbol	K	J	E	t	r	S	b
input	K	J	E	t	r	S	b

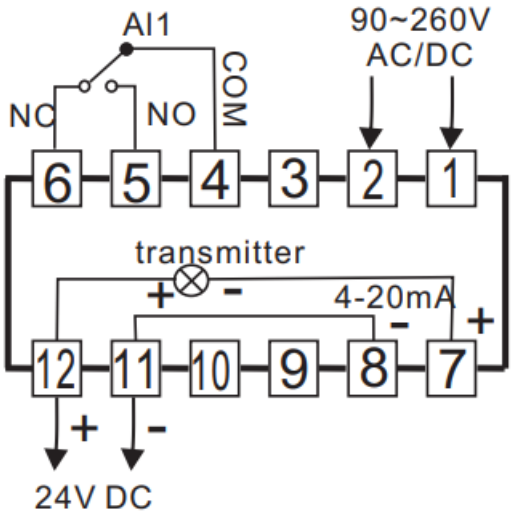
Symbol	Pt	rt	mV	A	V	mA	
input	Pt100	rt	mV	A	V	mA	

LSP	Low display value LSP	-1999 ~ 9999	0.0	PV low limit display value
USP	High display value USP	-1999 ~ 9999	100.0	PV high l imit display value
dP	Decimal point dP	0000, 000.0 00.00,0.000	000.0	PV decimal point
brL	Transmission output lower limit TrL	LSP≤trL≤USP	0.0	Display for re-transmission at low limit value
brH	Transmission output high limit TrH	LSP≤trH≤USP	100.0	Display for re-transmission at high limit value
LCK	Lock password LCK	0~999	000	LCK=010, the menu level 1 can be read only LCK=000, the menu level 1 can be modified

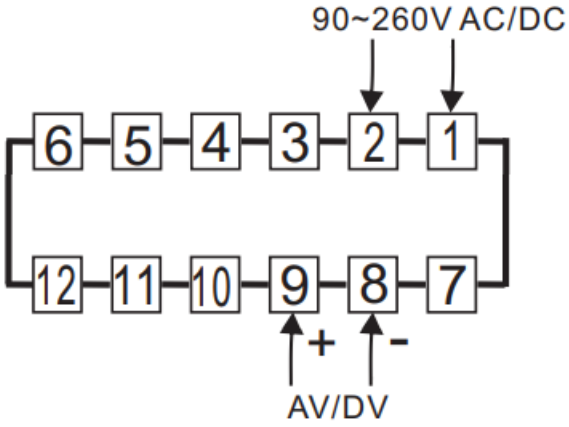
Remark: The parameter values showed on this menu are the factory setting values.

Application examples

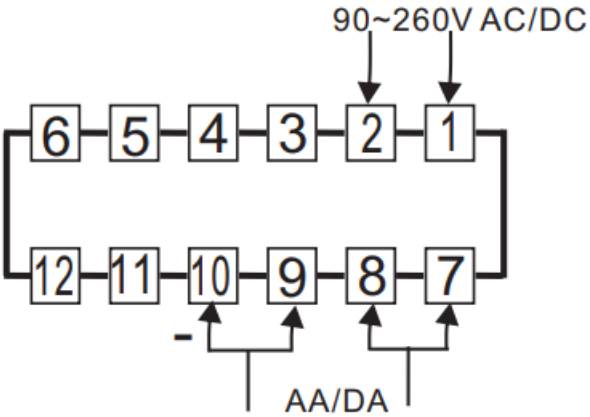
1. Connection 2-wire pressure transmitter, request supply DC 24V/22mA auxiliary power, and have relay output, softwareselect mA input.



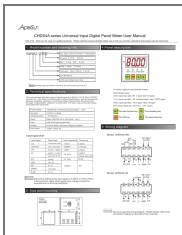
2. Measure AC DC voltage input connection, example 600V AC, 500V DC



3. Measure AC DC current input connection, example AA5A, DA5A



Documents / Resources

	Aposun CHDS4A Series Universal Input Digital Panel Meter [pdf] User Manual CHDS4A Series Universal Input Digital Panel Meter, CHDS4A Series, Universal Input Digital Panel Meter, Digital Panel Meter