Datasheet

Single-loop digital display

SUP-1100

Supmea®

Committed to process automation solutions

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Datasheet

Single-loop digital display
SUP-1100

Single-circuit digital display controller provides easy operation with measurement precision of 0.3%; 7 types of dimensions available; double four-digit LED display, supporting thermocouple, thermal resistance, voltage (extraction operation available), current (extraction operation available), and transducer input; applicable to measurement of industrial process quantifiers including temperature, pressure, flow, liquid level, and humidity etc. Supporting 2-way alarm, 1-way control output or RS485 communication interface adopting standard MODBUS protocol, 1-way DC24V feed output; photoelectric isolation between input, output and power end; 100-240V AC/DC or 20-29V DC switch power supply; standard snap-in installation; operating temperature: 0-50℃, relative humidity: 5-85% RH without coagulation.

Applications

- Measurement of electrical parameters
- Monitoring of environmental parameters
- Flow measurement
- Pressure monitoring
- Temperature control

Features

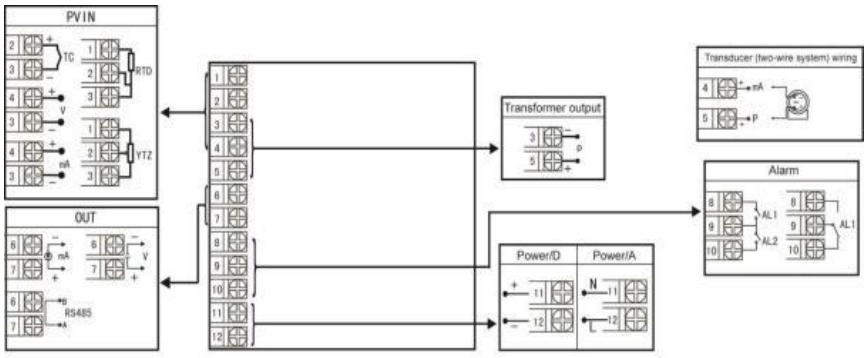
- Intuitive display
- Higher precision
- Alarm function
- Control function
- Data logging and storage
- Easy to install
- Good compatibility

Single-loop digital display

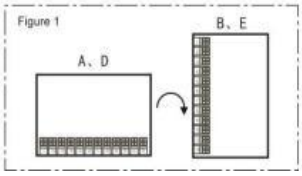
Principle

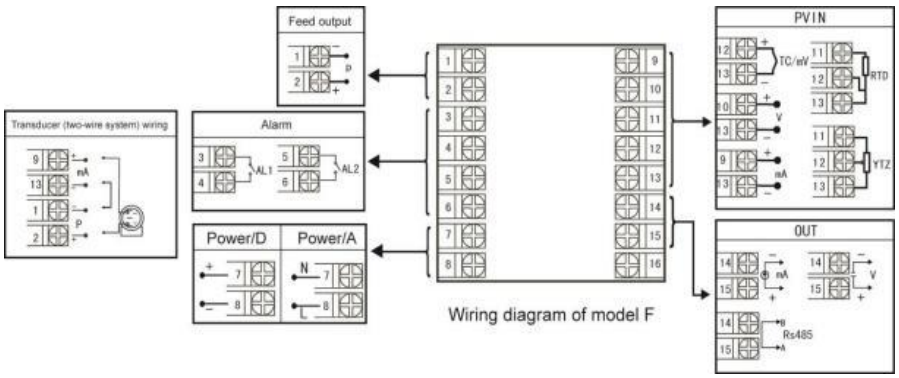
A single-loop digital display meter works simply. Firstly, it links to a sensor measuring physical parameters like temperature. The sensor makes an analog signal. This is sent to the analog-to-digital conversion part, turning it into digital data for the microprocessor.The microprocessor then uses preset routines to handle the data. It may calibrate for accuracy, check for alarms against set limits, and run control algorithms if it can control.Finally, the processed data shows clearly on the display. Also, with RS485 or USB etc., it can share data with other systems for automation and management. That's the brief working principle.

Wiring

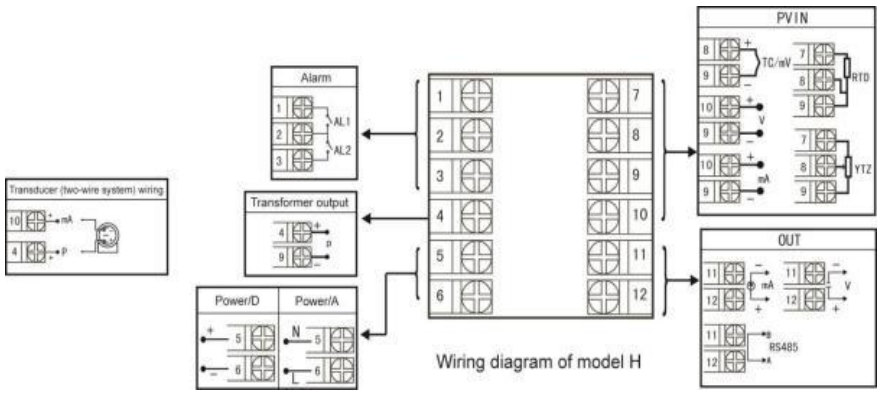


Wiring diagram of model A, B, C, D, and E
Note: the wiring terminal directions at rear cover of horizontal and vertical instrument are different; see Figure 1.





Wiring diagram of model F



Wiring diagram of model H

Dimension

Outline Dimensions/ Code	Outline Dimensions/ Code
160*80mm (horizontal)/A	96*48mm (horizontal)/D
80*160mm (vertical) /B	48*96mm (vertical)/E
96*96mm(squared)/C	72*72mm (squared)/F
48*48mm (squared)/H	

Digital Communication

Digital Communication

Digital communication allows communication between the instrument and PC/PC network. MODBUS RTU protocol has been adopted. Please visit www.modbus.org for information about the protocol. It's not suggested to non-separated interface board, as it may cause disturbance or influence communication for earth potential difference. Shielded twisted pair shall be used as the lead.

- Refer to "Instrument Communication Manual" for specific parameters. This Operation Instruction will be subject to any change without notice.

Ordering code

SUP-1100 -H1-W-00-00-E1						Description
SUP-1100	-	-	-	-	-	
Dimension	H1					160×80×110mm (horizontal)
	S1					80×160×110mm (titular)
	F1					96×96×110mm (square)
	H2					96×48×110mm (horizontal)
	S2					48×96×110mm (titular)
	F2					72×72×110mm (square)
	F3					48×48×110mm (square)
Input signal		W				universal input
Output			00			None
			A1			4-20mA
			R1			RS485
			V1			1-5V
			V2			0-10V
			XX			other
Alarm output				00		None
				3		1-channelSPDT
				2		2-channelSPST
Power supply and distribution output					E1	220VAC，1-channel24VDC
					E0	220VAC，None
					C1	24VDC，1-channel24VDC
					C0	24VDC，None