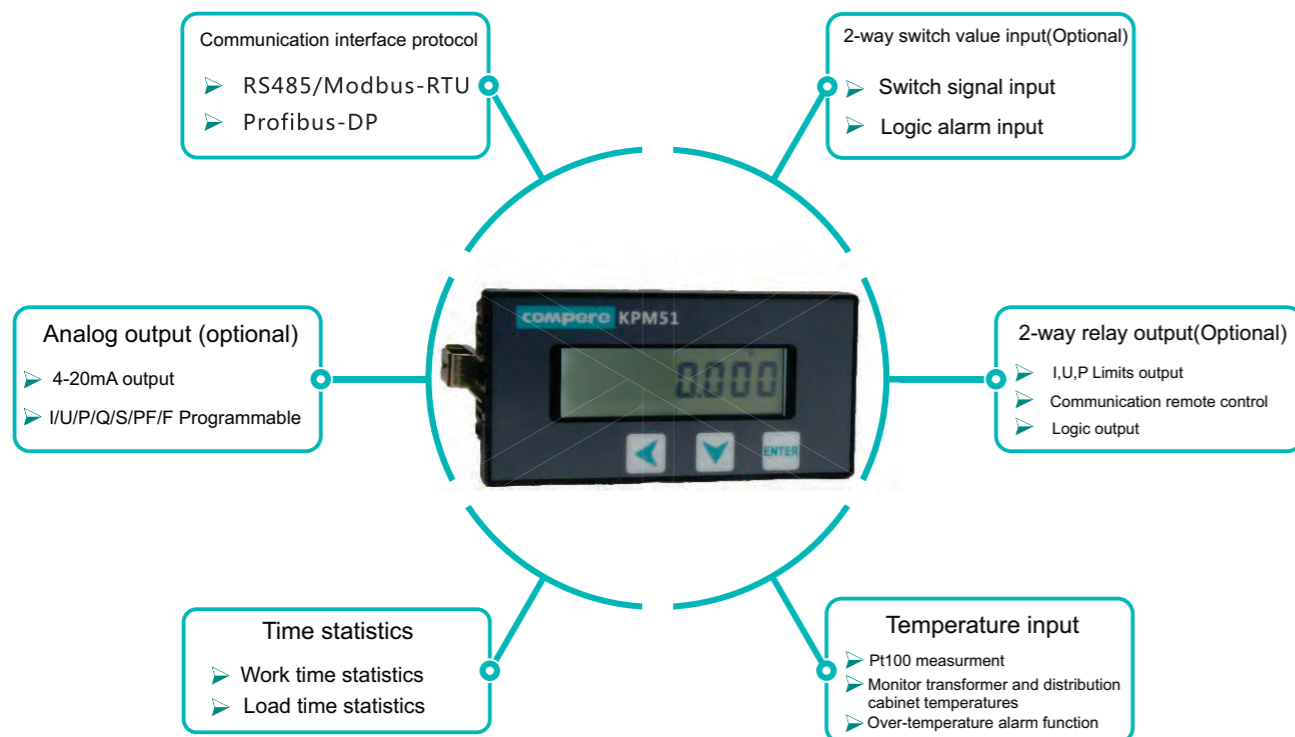


KPM51 Single-phase smart power meter



KPM51 is single-phase multifunction smart power meters, it is a collection of telemetry, remote communications, remote control, transmitter ,it with feature-rich, cost-effective, can be independently used in different occasions power measurement and display, helping customers save investment and use of space, it has been widely used in various industries.

Product Features

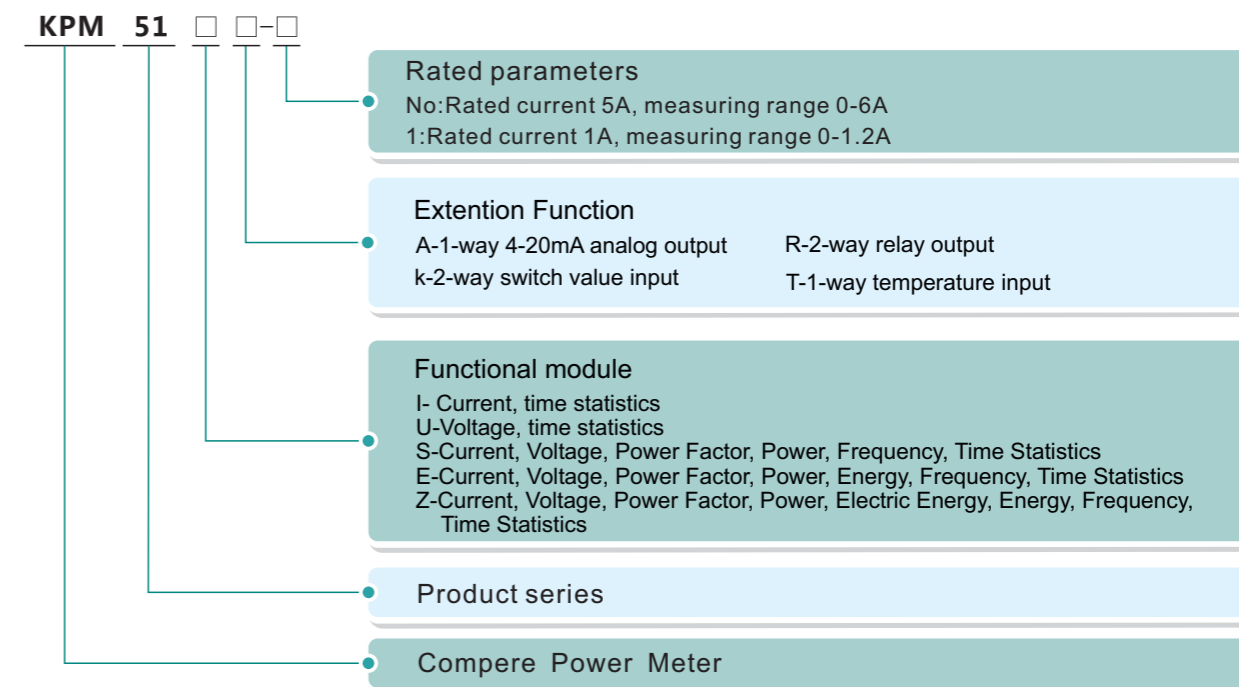


Function features



- Measuring single-phase AC voltage, current, active / reactive power, power factor, frequency
- Working hours, load time statistics
- 1-way RS485 communication interface, Modbus protocol
- Can be extended 2-way passive switch value input
- Can be extended 2-way relay output
- Can be extended 1-way 4-20mA analog output
- 1 road passive optical coupler collector active pulse output
- Can be extended 1-way PT100 temperature input
- Excellent temperature characteristics and work stability
- FSTN large screen LCD, bright LED backlight uniform display, in the bright light and large viewing angle environment to obtain a good visual effect

Products list



◆ Example: KPM 51Z-1: Rated current 1A, single-phase smart power meter.

Application occasion

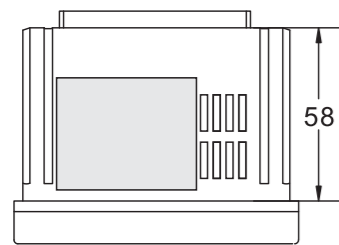
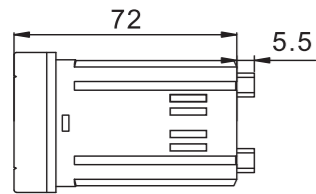
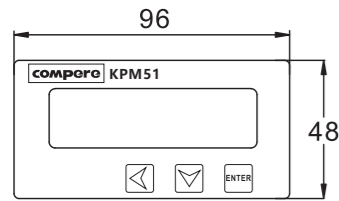
Alternative analog pointer table

Display and control of electrical parameters in distribution System

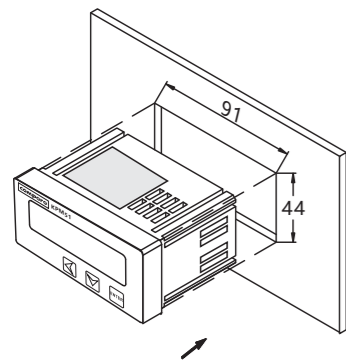
Collect energy consumption data that cost center analysis needs

DC/Green building or DC

Product size **Technical Parameters**



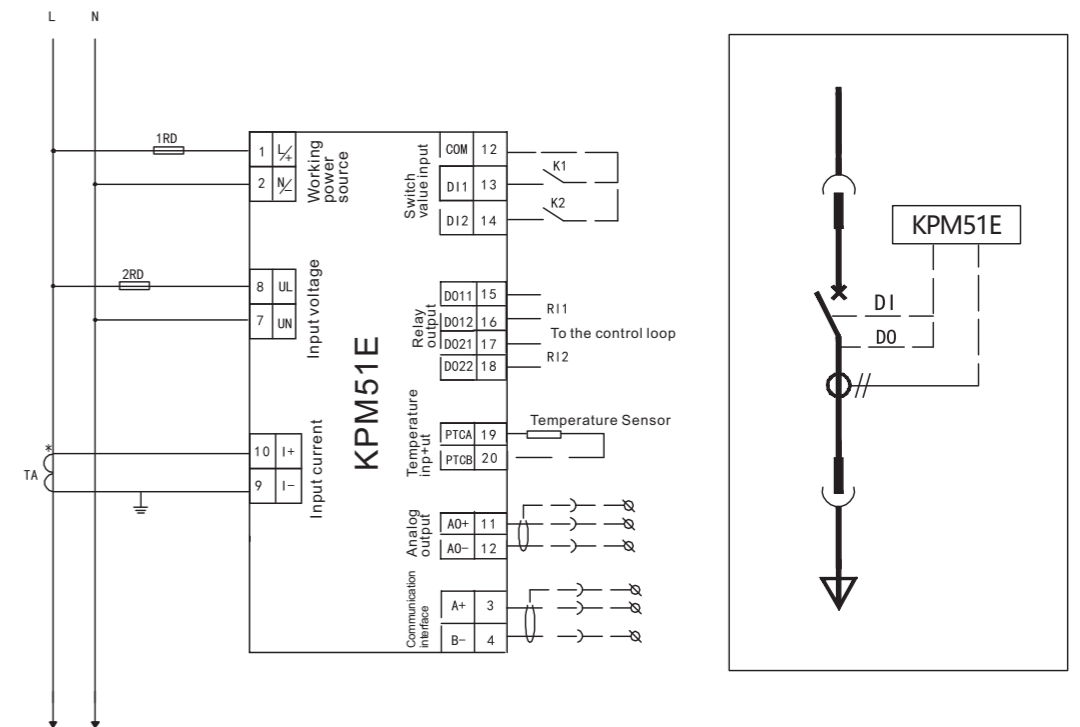
Installation instructions



Working power source	Operating Voltage	AC 85-265V/DC 80-300V
	Rated power	< 3VA
Input voltage	Rated voltage	220V
	Sill value	5V
	Overload capacity	1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1second
	Power consumption	< 0.5VA/phase (rated)
	Measurement range	5~260VAC
	Frequency range	45~65Hz
Input current	Rated current	Default 5A,Input range 1-6A;Optional 1A,Input range 1-1.2A
	Sill value	5A Configuration,5mA ;1A Configuration,0.8mA
	Overload capacity	1.2 times rated current allowed, continuous work; 20 times the rated current allowed 1 second
	Power consumption	< 0.75VA/phase (Rated current 5A) ;<0.25VA/phase (Rated current 1A)
Input output	Frequency range	45~65Hz
	Switch value input	2-way passive main line contact DI input, internal supply DC24V power source
	Relay output	2-way DO output,Contact capacity 250VAC/5A,30VDC/5A
	Analog output	Output range 4~20mA,overload allows 1.2times
Power quality monitor	Temperature input	Measure range 0°C~100°C
	Harmonic measurement	Voltage/current2~51th harmonic distortion rate, total harmonic distortion rate.
	Harmonic distortion rate	Phase voltage, line voltage
Measurement accuracy	Imbalance rate	Voltage, current
	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.5%(0.1W)
	Reactive power	±2.0%(0.1kvar)
	Active energy	±0.5%(0.1kWh)
	Reactive energy	±2.0%(0.1kvarh)
	Power factor	±0.5%(0.001)
Communication	Frequency	±0.02Hz(0.01Hz)
	Temperature	±1°C (1°C)
	Communication interface	RS485,Photoelectric isolation interface
	Communication protocol	Modbus-RTU,1200~38400bps;
Electrical insulation	Power frequency withstand voltage	AC2kV/min-1mA Input-output-power source (GB/T 13729)
	Insulation resistance	>50MΩ (GB/T 13729)
Working environment	Impact voltage	5kV (Peak),1.2/50us (GB/T 13729)
	Operating temperature	-25°C ~ +70°C
	Relative humidity	5%~95% No condensation
	Storage temperature	-30°C ~ +75°C
Electromagnetic Compatibility (EMC)	Altitude	No more than 4000m
	Electrical fast transient/burst immunity test	IEC61000-4-4,Level4
	Surge immunity test	IEC61000-4-5,Level4
	Electrostatic discharge immunity	IEC61000-4-3,Level4
Electromagnetic Compatibility (EMC)	Power frequency magnetic field immunity	IEC61000-4-8,Level4

Typical wiring

KPM51E Low-voltage single-phase typical wiring diagram



Explanation:

- 1.Working source:AC85-265V/DC80-300V
- 2.Terminal that without function description is invalid
- 3.The function of dotted lines is optional
- 4.The final interpretation belongs to Compere