

PZ2566 Series Programmable Digital Type Meter



1 Product overview

PZ2566 serial programmable digital type meter is a new generation intelligent meter that is mainly used for real-time measurement and indication of many electrical parameters such as voltage, current and frequency of electrical line. The meter uses a special high-precision application specific integrated circuit (ASIC) for electric energy measurement and high-performance single-chip microprocessor, and is designed with digital signal processing technique and SMT process in the modular mode, and the switching output (upper and lower limit alarm) module, analog output module, and RS485 digital communication module are provided for selection by user. Each module is designed in the plug-in way for quick combination, increasing and decreasing of functions of meter according to the user's different requirements. With the meter keyboard, the parameters of meter such as transformer multiple, upper and lower limit alarm value (or range) and alarm differential gap, communication address and communication baud rate, transmitter output way and transmitter range, digital filter coefficient can be set very easily.

2 Product parameters

2.1 Measurement range

Voltage measuring range

Direct measurement: AC0-600V

External device: AC0-380kV (external $\ast/100V$ voltage transformer; the transformer multiple can be programmed and set at any time)

Current measuring range

Direct measurement: AC0-10A

External device: AC0-999.9kA (external $\ast/5A$ current transformer; the transformer multiple can be programmed and set at any time)

Frequency measuring range: 45-65Hz

Power measuring range: 0- ± 9999 kW.

2.2 Measurement accuracy: $\pm 0.5\%FS \pm 1$ word

2.3 Sampling rate: About 3 times/s.

2.4 Display method: Three-row four-bit LED Nixie tube.

2.5 Current display resolution: Highest bit 0.001A; decimal point shifts automatically; automatic change-over of A/kA unit.

2.6 Voltage display resolution: Highest bit 0.1V; decimal point shifts automatically; automatic change-over of V/kV unit.

2.7 Frequency display resolution: 0.01Hz.

2.8 Power display resolution: Highest bit 1W; decimal point shifts automatically; automatic change-over of W/kW unit.

2.9 Input circuit power: $< 0.5VA$, voltage $< 1VA$.

2.10 Auxiliary power: AC/DC: 85-270V.

2.11 Auxiliary power consumption: $< 4VA$.

2.12 Overflow indication: display the characters "HHHH".

2.13 Polar indication: To display the reverse power, and display "-" automatically for negative signal.

2.14 Transmitter output: Three-way transmissions corresponding to three-way measured electric energy respectively, with 0~20mA or 4-20mA can be set freely with an accuracy of $\pm 0.5\%FS$; there is an electrical isolation between the signal input and the auxiliary power port.

2.15 Transmitter output load resistance: Current $\leq 500\Omega$, voltage $\geq 1k\Omega$.

2.16 Alarm output: One-way alarm or three-way alarm output can be selected, and the upper and lower limits (indicated by range percentage) of each-way alarm can be defined respectively. When one-way alarm is selected, the upper and lower limit alarms of all measured electric energies use the same relay contact output, and six indicators are used to indicate its alarm status; when three-way alarm is used, three relays are used for output respectively. The output statuses correspond to three-way measured electric energies, respectively. The capacity of alarm contact is AC250V/2A, DC30V/2A.

2.17 Communication interface: RS485 serial communication, with MODBUS_RTU communication protocol is used.

2.18 Communication address setting range: 0-100.

2.19 Communication baud rates: With 1200bit/s, 2400bit/s, and 9600bit/s optional.

2.20 Output ways: To support five outputs such as simultaneous output of three-way transmitters, simultaneous output of three-way alarm contacts (three relays), same relay output of three-way alarm, RS485 communication output, same relay output of three-way alarm + RS485 communication output.

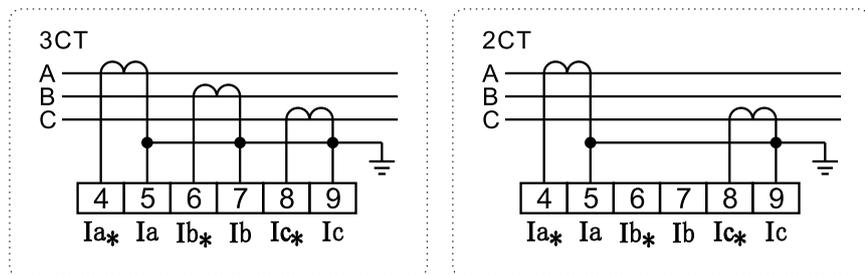
2.21 Working environment: No-corrosive occasions with temperature ranged $-20^{\circ}C$ to $55^{\circ}C$ and with humidity $\leq 90\%RH$.

PZ2566 Series Programmable Digital Type Meter

3 Cautions

- 3.1 Before power-on, confirm that the auxiliary power, input signal and wiring are correct.
- 3.2 The meter shall be heated for 15 minutes for accurate measurement.
- 3.3 The meter shall not be affected by knock, impact, and severe vibration, and the use environment shall meet the technical requirements.
- 3.4 The range of the meter has been set consistent with the specification parameter provided when ordering in factory. Before use, please check that the set value of the range of meter is consistent with the specification of the transformer or shunt provided by user. If found inconsistent, please reset the meter range.

4 Wiring terminal and description

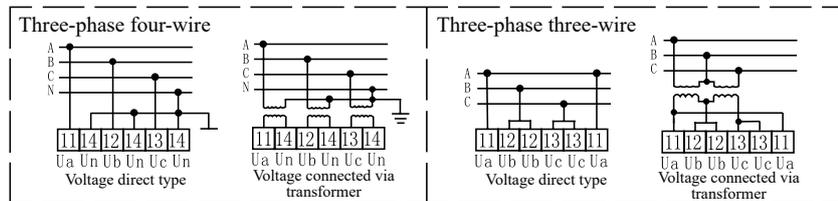


Auxiliary power supply		RS485		Current signal input					
L	N	A	B	Ia*	Ia	Ib*	Ib	Ic*	Ic
1	2	58	59	4	5	6	7	8	9

Three-phase current and voltage combination

4	5	6	7	8	9	31	30
Ia*	Ia	Ib*	Ib	Ic*	Ic	A01+	A01-
Current signal input						Analog output	

Note: Terminal with current marked with "*" refers to input terminal.



Auxiliary power supply	
L	N
1	2

RS485	
A	B
58	59

Voltage signal input					
11	12	12	13	13	11
11	14	12	14	13	14

5 Order information

Please specify the product model, specification and quantity before ordering. For special requirements, please contact the manufacturer.