

JTU1-C51 series

TRMS AC Voltage Transducer (DIN)



1. Brief introduction

JTU1-C51 AC voltage transducer uses voltage transformer principle to measure AC voltage with a DIN mounting case, It use a powerful TRMS (True RMS) chip to calculate the complex waveforms of the input AC voltage. The output signal could be standard DC signals that can be accepted by electronic circuit e.g. PLC. The primary input current and the output signal is highly electric isolated. It can be used in Power Utility, Telecom, Oil & Gas, and New energy fields.

- ★ AC voltage measurement ★ DIN rail mounting ★ TRMS calculated output
- ★ Good linearity ★ Galvanic isolation between primary and secondary circuit ★ Low power consumption
- ★ Compact size ★ Suitable for VFD and SCR

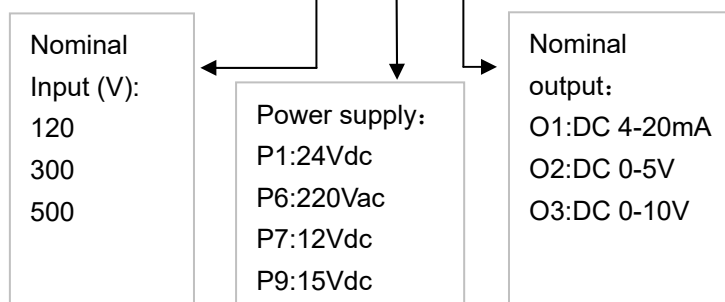
2. Order information (see right chart)

Nominal Voltage Input:
120 300 500 Vrms

Nominal output:
O1:DC 4-20mA O2:DC 0-5V O3:DC 0-10V

Power supply:
P1:24Vdc P6:220Vac P7: 12Vdc P9:15Vdc

JTU1-C51-xxxPx O_x



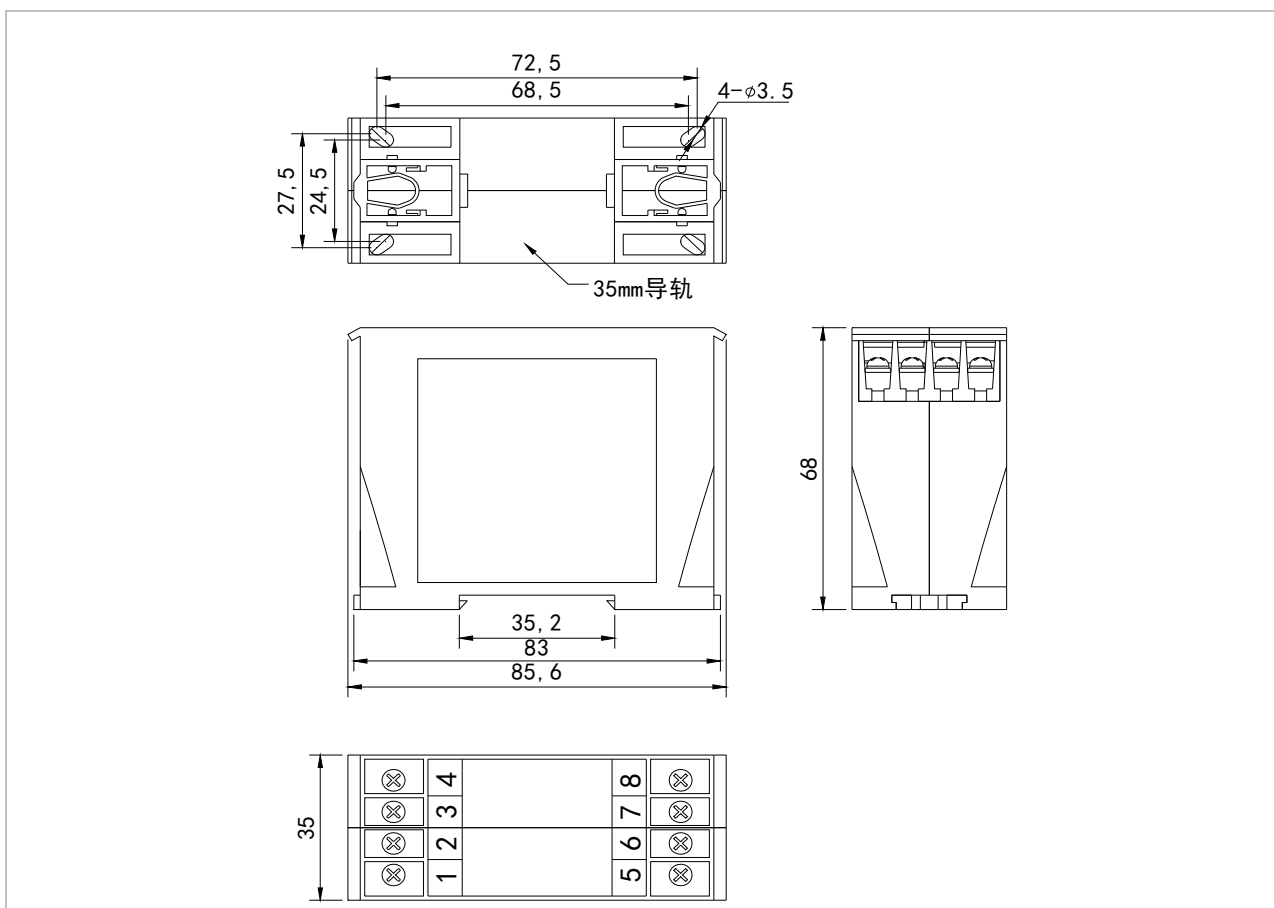
3. Eletrical data

V _{pn}	Primary nominal current (Vrms)	120 300 500
V _p	Primary Voltage, measuring range Vrms)	120% x V _{pn}
V _{oc}	Over load capacity	200% x V _{pn}
V _{sn} (for voltage output)	Secondary Voltage output	DC0-5V, DC0-10V etc
I _{sn} (for current output)	Secondary Current output	DC 4-20mA, DC 0-20mA etc
X	Accuracy (Ta =+25℃)	≤0.5%
EL	Linearity error	≤0.2%
V _c	Power supply voltage	Pn(±5%)
V _{ofs} /I _{ofs}	Offset voltage/Offset current (Ta =+25℃)	≤20mV(for voltage output)/ ≤80uA (for current output)
Tr	Response time	≤ 300mS
f	Frequency bandwidth	40-5KHZ
I _c	Current consumption	20mA (for current output : + I _s)
R _L	Load resistance	>5KΩ(for voltage output)/ ≤450Ω(for current output)
V _d	Isolation test(50HZ,1min)	3KV

4. General data :

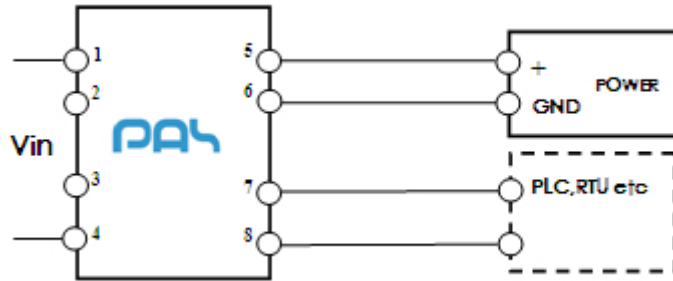
Ta	Ambient operating temperature	-25 - +70 °C
Ts	Ambient storage temperature	-40 - +85 °C
W	Mass	200g
St	Standards	IEC688:1992;EN61326
Ha	Ambient operating humidity	20-90% RH
	Case material	According to UL94-V0

5. Dimensions



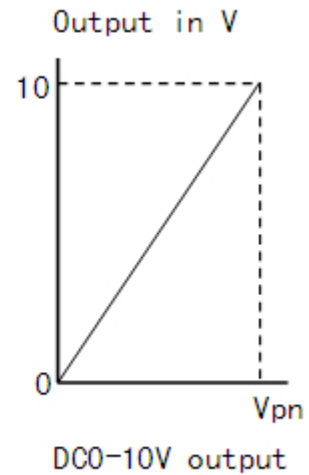
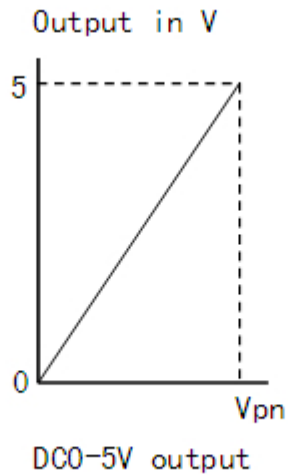
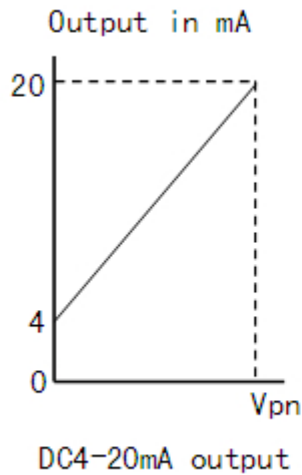
General tolerance	± 1mm
Primary hole size	No holes
Fastening	Bottom: 4 x Φ3.5mm

6. Connection



PIN	Defines	PIN	Defines
1	Input	5	Supply voltage +
2	NC	6	Supply GND
3	NC	7	Output signal +
4	Input	8	Output signal -

7. Output figure



8. Safety items



1. Only qualified people can operate with such electrical products.
2. Wrong connection may destroy the products.
3. ESD protection is necessary, please follow the correct process.
4. Do not use in the environment with conductive dust and corrosive gas.
5. The Potentiometers on the product are used by PAS internal, the user can not calibrate.
6. Strong vibration and very high temperature may damage the products.



1. After the installation, the bus bar may be connected to the high voltage equipment, please do not touch the exposed parts of the transducers to avoid electric shock!

Note: 1.Passion technology company reserves the right to modify the datasheets at any time without previous notifications.



2. Any question about the datasheet, please contact our TCS.