

HTIC-C21 series

TRMS Current Transducer



1. Brief introduction

HTIC-C21 current transducer uses Hall effect(open loop principle) to measure AC,DC and Mixed current and using a powerful TRMS (True RMS) chip to calculate the complex waveforms current . The output signal could be small current or low voltage that can be accepted by electronic circuit. The primary input current and the output signal is highly electric isolated. This kind of transducer has a compact size but with a $\Phi 32$ mm aperture hole. It can be used in Power Utility, Telecom, Oil & Gas, welding machine and New energy fields.

- ★ AC,DC and Mixed current measurement
- ★ Good overload capacity
- ★ TRMS calculated output
- ★ Good linearity
- ★ Galvanic isolation between primary and secondary circuit
- ★ Low power consumption
- ★ Compact size
- ★ Suitable for VFD and SCR waveforms measurement

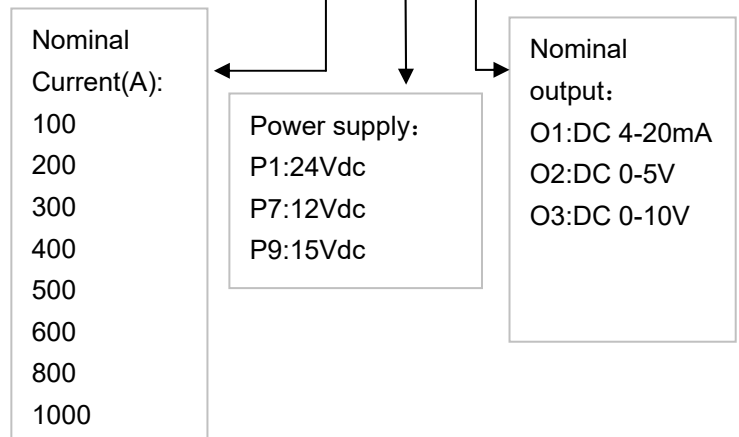
2. Order information (see right chart)

Nominal Current:
100 200 300 400 500 600 800 1000Arms

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

Power supply:
P1: 24Vdc P7: 12Vdc P9:15Vdc

HTIC-C21-xxxPx O_x



3. Eletrical data

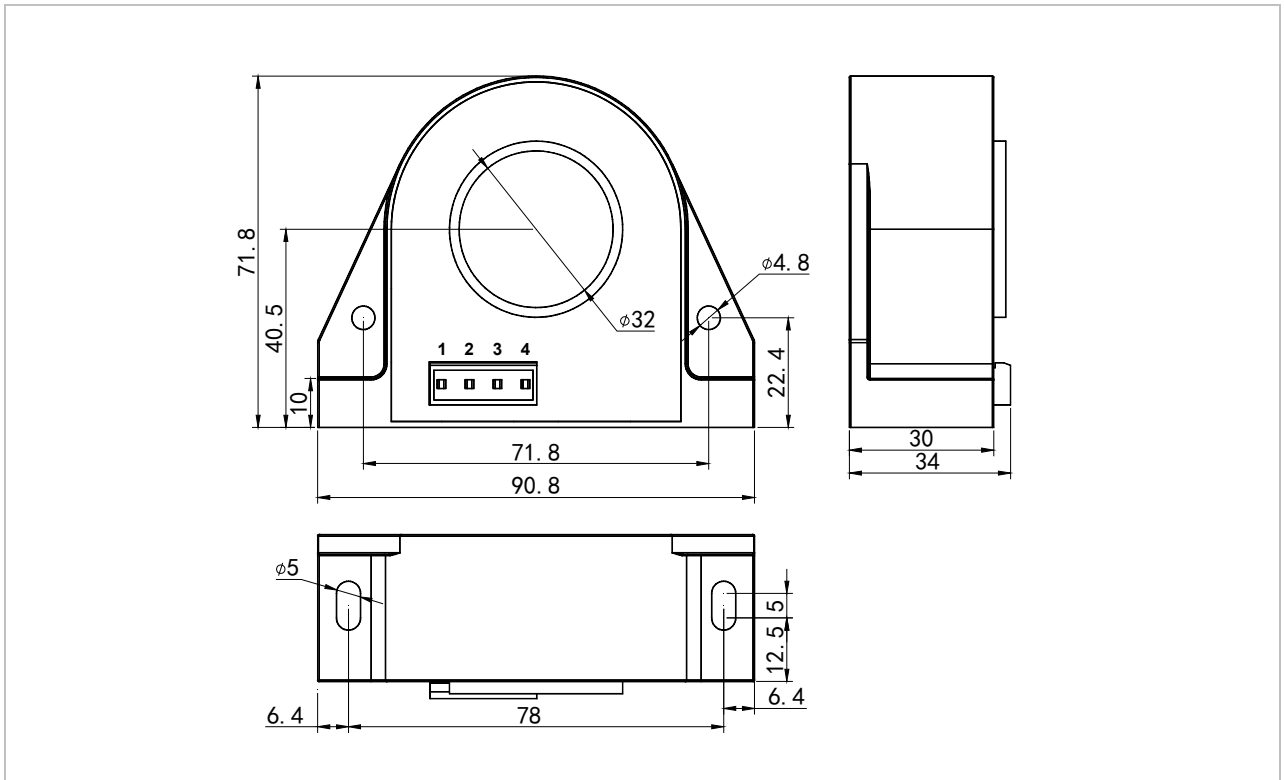
I _{pn}	Primary nominal current (Arms)	100 200 300 400 500 600 800 1000
I _p	Primary Current, measuring range(Arms)	120% x I _{pn}
I _{oc}	Over load capacity	3000Arms
V _{sn} (for voltage output)	Secondary Voltage output	DC0-5V, DC0-10V (TRMS) etc
I _{sn} (for current output)	Secondary Current output	DC 4-20mA,DC 0-20mA (TRMS) etc
X	Accuracy (Ta =+25°C)	≤1%
EL	Linearity error	≤0.5%
V _c	Power supply voltage	P _n (±5%)
V _{ofs} /I _{ofs}	Offset voltage/Offset current (Ta =+25°C)	≤ 50mV(for voltage output)/ ≤ 80uA (for current output)
Tr	Response time	≤ 150mS
f	Frequency bandwidth	DC, 20HZ-6KHZ
I _c	Current consumption	25mA (for current output : + I _s)

R _L	Load resistance	>5KΩ(for voltage output)/ ≤450Ω(for current output)
V _d	Isolation test(50HZ,1min)	5KV

4. General data :

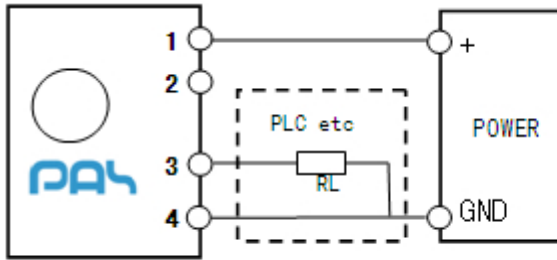
T _a	Ambient operating temperature	-40 - +70 °C
T _s	Ambient storage temperature	-55 - +85 °C
W	Mass	250g
St	Standards	IEC688:1992;EN61326
Ha	Ambient operating humidity	20-90% RH
	Case material	According to UL94-V0

5. Dimensions

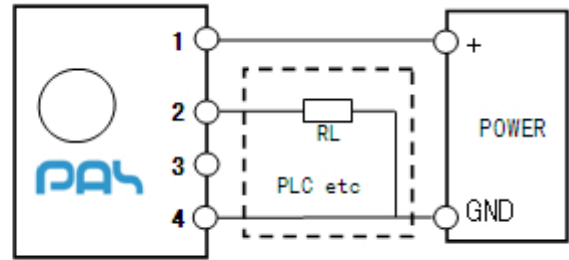


General tolerance	± 1mm	
Primary hole size	Φ32mm	
Fastening	Bottom: 2 x Φ5mm	Side: 2 x Φ4.8mm

6. Connection



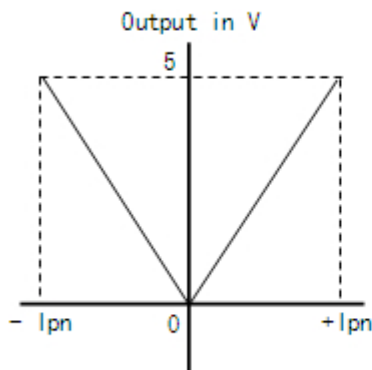
Voltage output connection



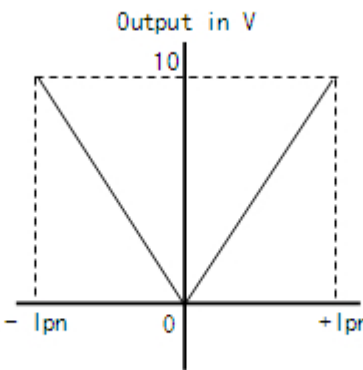
Current output connection

Pin	Definition
1	Supply voltage+
2	Current signal output
3	Voltage signal output
4	Supply voltage GND

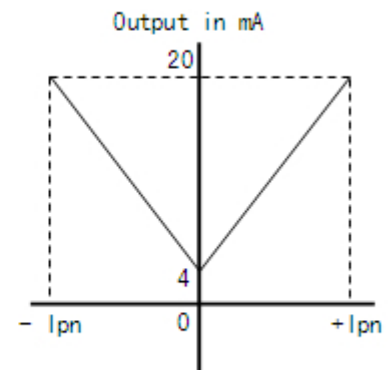
7. Output figure



DC0-5V output



DC0-10V output



DC4-20mA output

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.