

# AC Var Transducer

**SPK301**


- ⊙ Standard output with 0 to 1 mAdc
- ⊙ Accuracy of reading base 0.25% reading + 0.02% ro
- ⊙ High magnetic field immunity
- ⊙ Meets IEEE SWC test

## MODEL

301 - 3 phase 4 wires / 3 elements

## Description

HC model SPK-VAR transducer is designed to be an accurate unit, conversion by principle of time division multiplier as a function of sampling duty cycle as voltage & pulses amplitude as current. Rugged steel enclosure of magnetic field immunity & high electrical over capability, the units feature stable & reliable field operation as industry, laboratories & process control for power measurement.

## Specification

**1.Accuracy** 0.25% RD + 0.02%RO / 23 ± 3°C

### 2.Input ( each element )

Range Effective voltage 85-150V; current 0-6A  
Nominal voltage 120V current 5A

Over capability Voltage 200V continuous ; 250V ... 10sec / hour; 500V ... 2sec / hour  
Current 15A continuous ; 50A ... 10sec / hour; 250A...1sec / hour ;  
400A ... 0.5sec / hour

Burden Voltage < 0.1VA at 120V input; current < 0.2VA at 5A input

Frequency 60Hz only

Protection Full protection for SURGE, EMI & RFI

### 3.Output ( isolated with input )

Range DC 0 to ±1mA  
DC 0 to ±1mA calibration vs 0 to ± 1500VAR

Output load Maximum 10k ohm for 0 to ±1mA ouput

Output impedance > 30 Mega ohm

Response time < 400 ms from 0 to 99% RO at operating

Ripple < 0.5% P-P RO

Long term stability < 0.1% RO per year ( typically )

Temperature stability < 0.01% per degree C, from 0 to 55°C

Adjustment Span ± 5% / 10%; zero ± 2.5% / 5% on request

Protection No damage ... open or short; full protection ... SURGE, EMI, RFI

Magnetic effecton < 0.04% at center 400 A-T / M

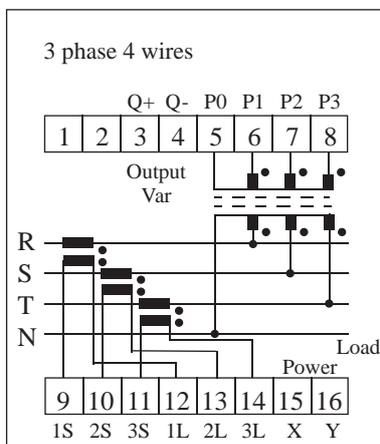
**4.Power supply** AC115 ± 20%, 50-70Hz, < 3VA

**5.Operation condition**

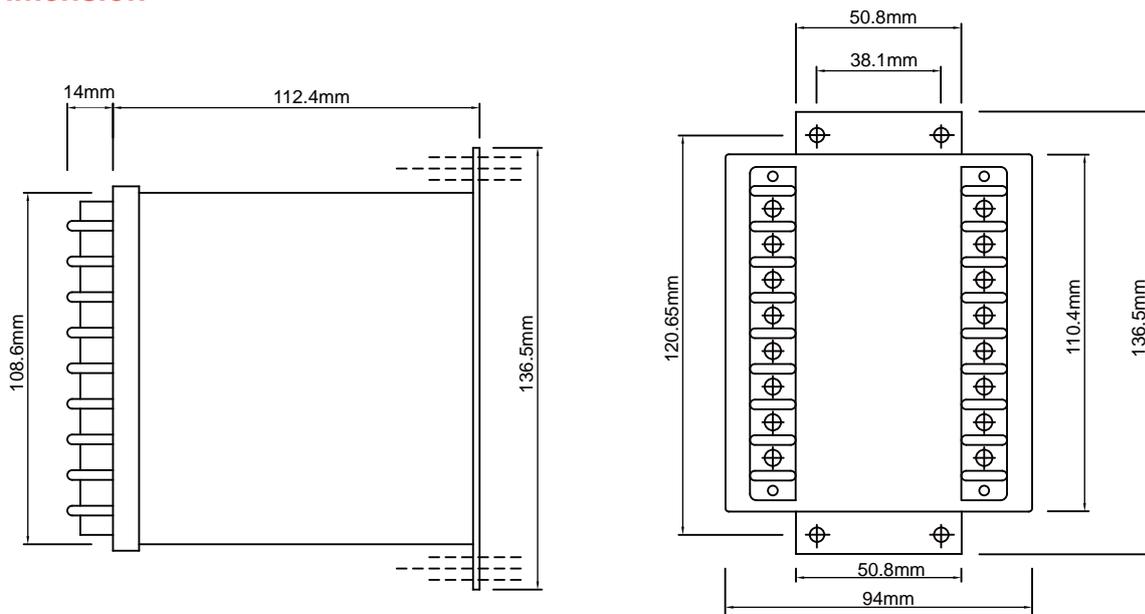
Environment

Temperature	-5 to 60°C
Humidity	20 to 99% RH non condensed
Elevation	Under 3000 meters
Magnetic field	500 A-T / M
Waveform	Sinusoidal
Power factor	Any
Dielectric strength	4KV AC rms 1 minute between input / output / power / case IEC 688
Impulse test	ANSI C37.90/1989, IEEE 587/1983, IEC 255-3, 6KV ( 1.2 x 50 us ), 3KA ( 8 x 20 us ) .... current only
Surge test ( ring wave)	IEEE 587/1983 ( 3KV - 0.5us / 100KHz) IEC 255-3 ( 2.5KV - 0.25ms / 1MHz)

**Terminal Connection**



**Dimension**



**HSIANG CHENG ELECTRIC CORP.**

4F., No.11, Ln. 235, Baoqiao Rd., Xindian Dist., New Taipei City 231, Taiwan  
 TEL : 886-2-2917-5865~9 E-mail : expo.sales@hc.com.tw  
 FAX : 886-2-2917-3946 http://www.hc.com.tw