

# AC Var Transducer

**SPK201**


- ⊙ 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**

201 - 3 phase 3 wires / 2 element

## 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 ± 1000VAR

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

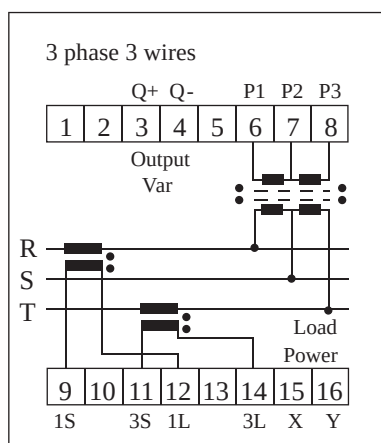
AC115  $\pm$  20%, 50-70Hz, < 3VA

#### 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 ),<br>3KA ( 8 x 20 us ) .... current only |
| Surge test ( ring wave) | IEEE 587/1983 ( 3KV - 0.5us / 100KHz )<br>IEC 255-3 ( 2.5KV - 0.25ms / 1MHz )                           |

#### Terminal Connection



#### Dimension

