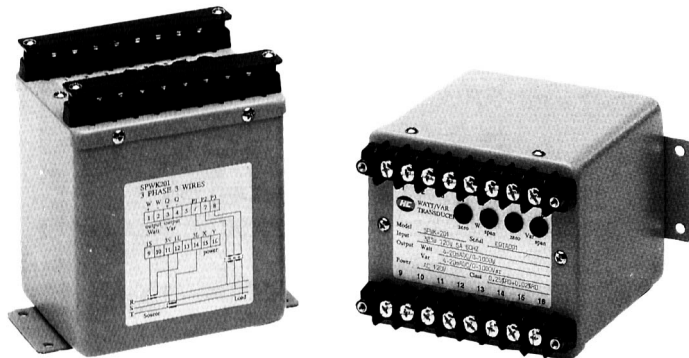


# AC Watt / Var Transducer

## Model SPWK



- ⊙ Standard output with 0 to 1 mAdc
- ⊙ Accuracy of reading base 0.25% reading + 0.02% ro
- ⊙ Dual isolated output watt / var eliminating ground loops effect
- ⊙ High magnetic field immunity
- ⊙ Meets IEEE SWC test

### MODEL...SPWK

- 101 – 1 phase 2 wires / 1 element
- 201 – 3 phase 3 wires / 2 elements
- 301 – 3 phase 4 wires / 3 elements

## Description

HC model SPWK watt / var transducers are compact, designed to be a very accurate mode with DC 1 mA output directly proportional to an AC rated input. output of watt & var are isolated each other to eliminate ground effect. for utility, the unit are useful including industry, laboratories & process control requiring accurate power or energy measurements.

## Specification

<b>1.Accuracy</b>	0.25% RD + 0.02%RO / 23 ± 3°C
<b>2.Input ( each element )</b>	
Range	Effective voltage 85–150V; current 0–6A
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	Watt 57–63Hz; Var 60Hz only
Protection	Full protection for SURGE, EMI & RFI
<b>3.Output ( isolated with input )</b>	
Range	Standard DC 0 to ±1 mA; option ± ( 0 – 1 / 0 – 5 / 0 – 10 ) Vdc DC 0 to ±1 mA calibration vs 0 to ± 500W / ± 500Var ... 1ø2W / 1 element 0 to ± 1000W / ± 1000Var ... 3ø3W / 2 elements 0 to ± 1500W / ± 1500Var ... 3ø4W / 3 elements
Outputload	Maximum 10Kohm for 0 to ±1 mA ouput
Outputimpedance	> 30 Mega ohm
Response time	< 400 ms from 0 to 99% RO at operating
Ripple	< 0.5% P–P RO
Longterm stability	< 0.1% RO per year ( typically )
Temperaturestability	< 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 prtecton ... SURGE, EMI, RFI
Magneticceffection	< 0.04% at center 400 A–T / M

#### 4. Power supply

AC115 ± 20%, 50-70Hz, < 6VA

#### 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	Watt - fundamental with 20% 3rd harmonics Var - 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 - 025ms / 1MHz )

### Terminal Connection

