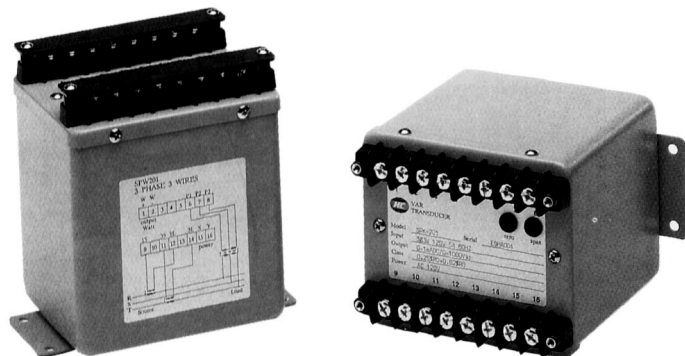


AC Watt & Var Transducer

Model SPW...WATT / Model SPK...Var



- ⊙ 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...SPW...SPK

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

Description

HC model SPW-WATT & SPK-VAR transducers are designed to be an accurate unit, conversion by principle of time division multiplier as a function of sampling duty cycle as voltage & 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
Over capability	Voltage 200V continuous 250V ... 10sec / hour; 500V ... 2sec / hour Current 15A continuous 50A ... 10sec / hour; 250A...1 sec / 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
3.Output (isolated with input)	
Range	DC 0 to ±1 mA 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 output
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 effect	< 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	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

*Terminal 1 & 2 for SPW-Watt only, terminal 3 & 4 for SPK-Var only

