



ACTIVE POWER (WATT) TRANSDUCER

S3-WD
SERIES

FEATURES

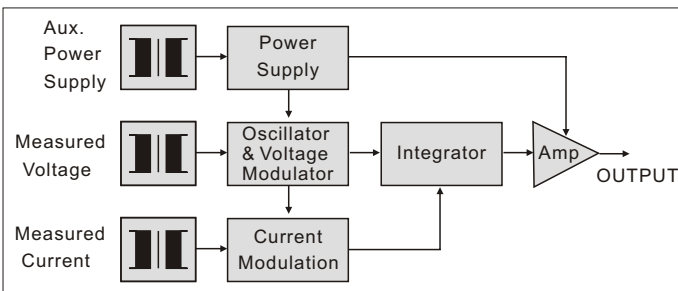
- Accuracy: $\pm 0.2\%$ RO.
- Excellent long term stability (4 ~ 20mA, 500 Ω)
- Precision measurement even for unbalance system
- Precision measurement even for distorted wave
- Measuring reverse watt is available
- High impulse & surge protection (5KV)
- The case can be mounted on a 35mm rail which complies with DIN 46277



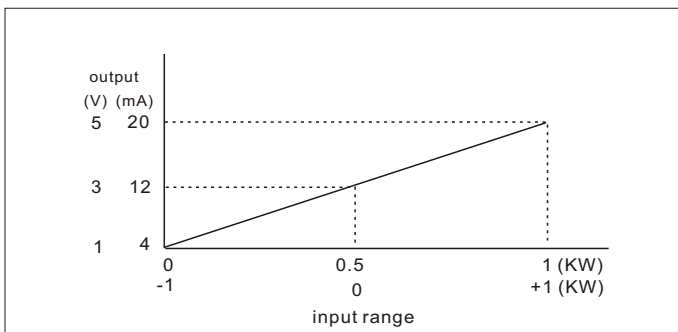
DESCRIPTION

Model: S3-WD-1 1 ϕ 2W, active power (WATT)
 S3-WD-3 3 ϕ 3W, active power (WATT)
 S3-WD-3A 3 ϕ 4W, active power (WATT)

A wide range of transducers to measure all forms of active power, in both balanced and unbalanced, single or 3 phase system. They utilize the well prove "time division multiplication" method of measuring instantaneous power over a wide range of input waveforms. The circuit diagram shown measured voltage is modulated by circuit of an oscillator. Square wave pulses from a multi-vibrator circuit, with a mark - space ratio varied by the measured voltage and amplified by the measured current, are fed to an integrator an output amplification circuit. The dc signal produced is then directly proportional to power input - Watts.



INPUT - OUTPUT CURVE



SPECIFICATION

INPUT

Input Range				Max. Input Over Capability
Circuit	Amp.	Voltage	Basic Watt	
Single Phase	5A	110V (120V)	0 ~ 0.5KW	Ampere: 3 x rated continuous 10 x rated 10 sec. 50 x rated 1 sec. Voltage: 2 x rated continuous
		220V (240V)	0 ~ 1KW	
3-Phase 3-Wire	5A	110V (120V)	0 ~ 1KW	
		220V (240V)	0 ~ 2KW	
3-Phase 4-Wire	5A	190V/110V (208/120V)	0 ~ 1.5KW	
		380V/220V (416/240V)	0 ~ 3KW	

OUTPUT

DC Output Range	Load Resistance	Output Resistance	Output Ripple	Response Time
0 ~ 1V	$\geq 1K\Omega$	$\leq 0.05\Omega$	$\leq 0.5\%$ RO. (Peak)	$\leq 400mS.$ 0 ~ 99%
0 ~ 5V				
1 ~ 5V				
0 ~ 10V				
0 ~ 1mA	0 ~ 10K Ω	$\geq 20M\Omega$		
0 ~ 10mA	0 ~ 1K Ω	$\geq 5M\Omega$		
0 ~ 20mA	0 ~ 500 Ω			
4 ~ 20mA				

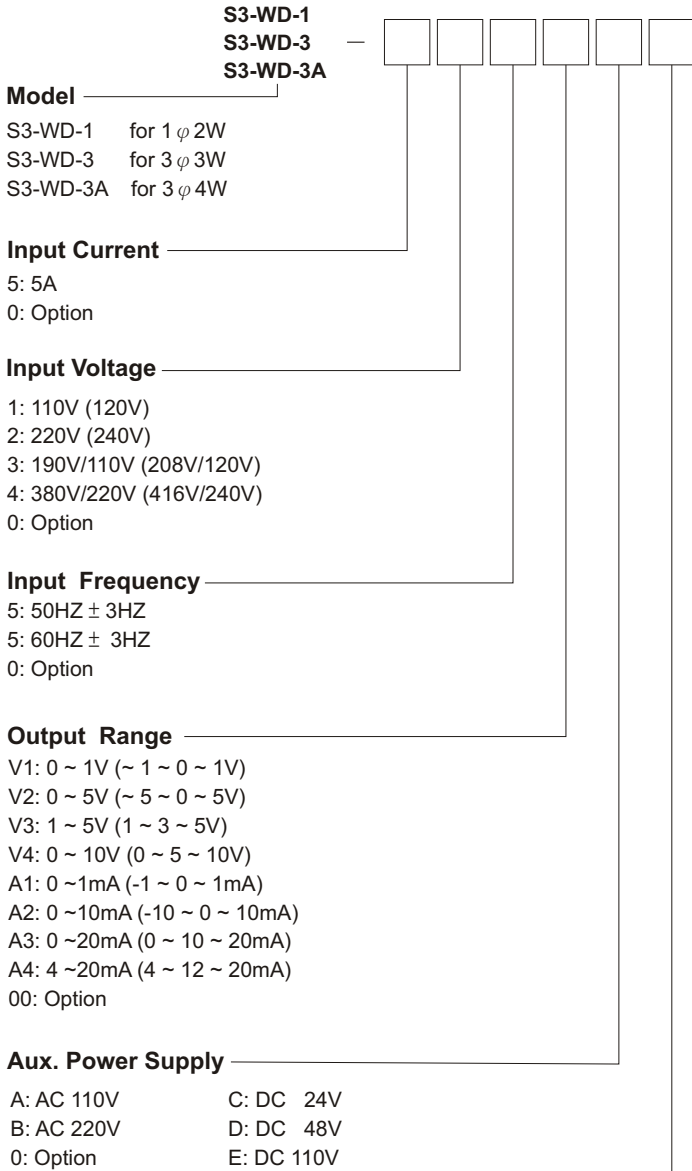
- Accuracy $\pm 0.2\%$ Rated of Output
- Input frequency 50HZ ± 3 HZ or 60HZ ± 3 HZ
- Input burden $\leq 0.1VA$ (ampere input)
 $\leq 0.2VA$ (voltage input)
- Aux. power supply AC 110V $\pm 15\%$, 50/60HZ
AC 220V $\pm 15\%$, 50/60HZ
DC 24V, 48V, 110V, $\pm 15\%$,
- Power effect $\leq 0.1\%$ RO.
- Power consumption $\leq 4VA$, $\leq DC 3W$
- Waveform effect $\leq 0.2\%$ RO. at distortion factor 15%
- Output load effect $\leq 0.05\%$ RO.
- Electromagnetic balance effect $\leq 0.1\%$ RO.
- Mutual interference effect $\leq 0.1\%$ Ro. between element
- Magnetic field strength $\leq 0.2\%$ Ro., 400A/M
- Span adjustment range $\geq 5\%$ RO.
- Zero adjustment range $\geq 1\%$ RO.
- Operating temperature range 0 ~ 60 $^{\circ}C$
- Storage temperature range -10 ~ 70 $^{\circ}C$
- Temperature coefficient $\leq 100PPM$ from 0 to 60 $^{\circ}C$
 $\leq 60PPM$, 25 $^{\circ}C \pm 10^{\circ}C$
- Max. relative humidity 95%
- Isolation Input/output/power/case
- Insulation resistance $\geq 100M\Omega$, DC 500V
- Dielectric withstand voltage Between input/output/power/case (IEC 414, 688,ANSI C37) AC 2.6KV, 60HZ, 1 min.
- Impulse withstand test 5KV, 1.2 X 50 μS (IEC 255-4, ANSI C37 90a) Common mode & differential mode
- Performance Designed to comply with IEC 688
- Safety requirements IEC 414, BS5458



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ORDERING INFORMATION

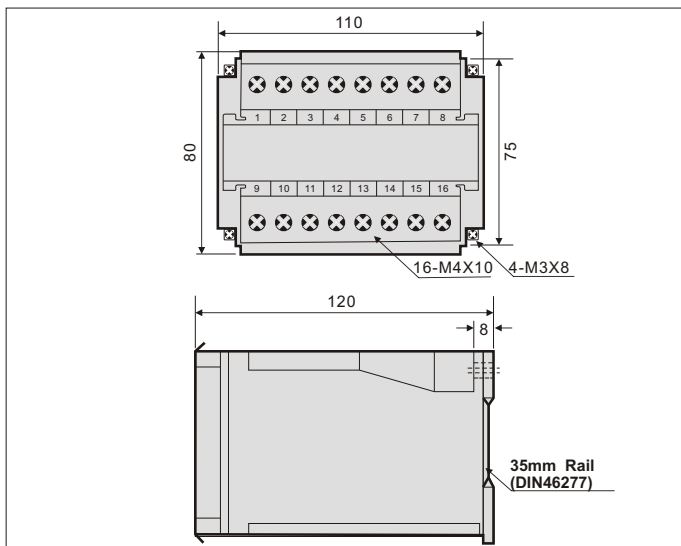


Reverse Required

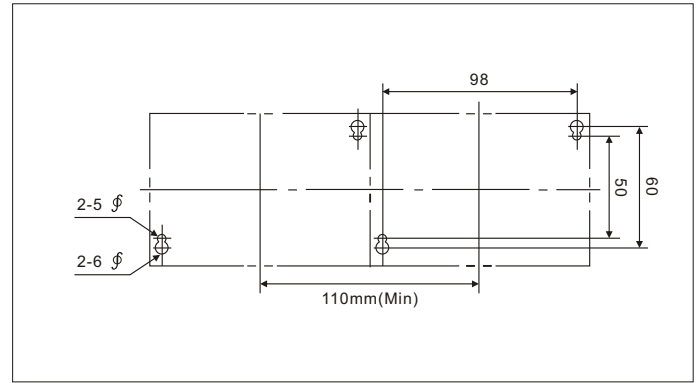
Y: Yes
N: No

*Remark: The value in parentheses is the output or reverse Watt be required

THE OUTSIDE DIMENSION (UNIT:mm)

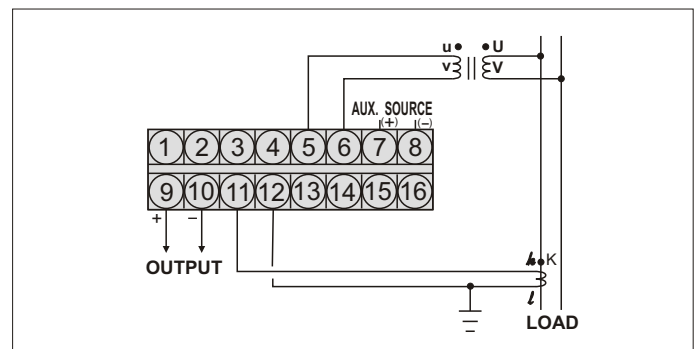


PANEL MOUNTING HOLES (UNIT:mm)

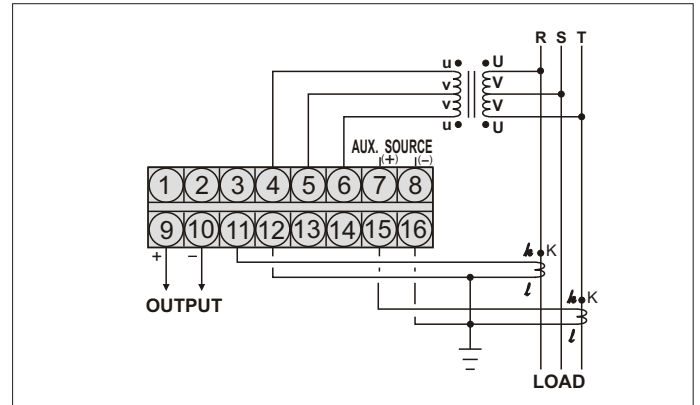


CONNECTION DIAGRAM

S3-WD-1 (1 ϕ 2W)



S3-WD-3 (3 ϕ 3W)



S3-WD-3A (3 ϕ 4W)

