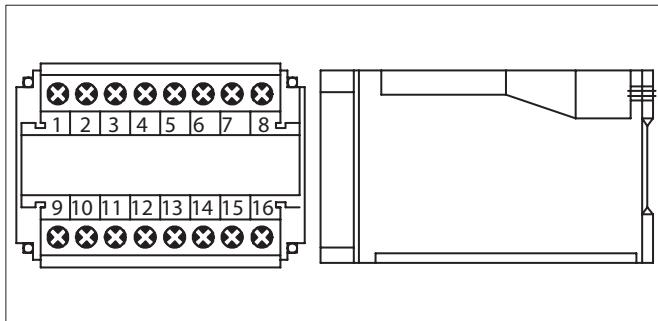


ACTIVE/REACTIVE POWER TRANSDUCER(WATT/VAR)

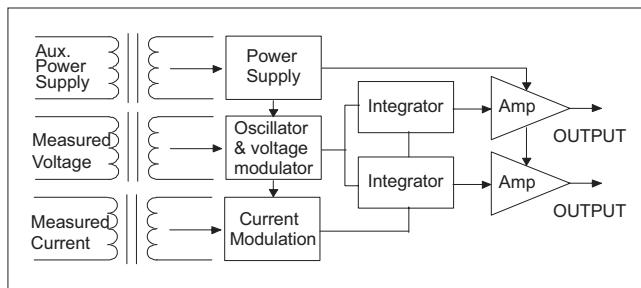
MODEL : DWR SERIES



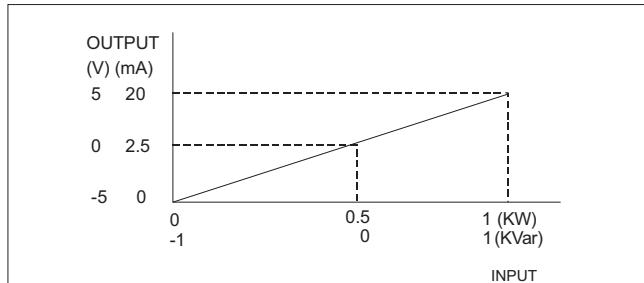
■ DESCRIPTION

- Model : DWR-1 for 1Φ 2W, watt/var
 DWR-3 for 3Φ 3W, watt/var
 DWR-3A for 3Φ 4W, watt/var

A wide range of transducers to measure all forms of WATT, VAR, 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 amplitude by the measured current, are fed to an integrator an output amplification circuit. The dc signal produced is then directly proportional to power input-Watt & Vars.



■ INPUT-OUTPUT CURVE



■ SPECIFICATION

• INPUT

Input Range				Max. Over Capability
Circuit	Amp.	Voltage	Basic Watt	
Single Phase	5A	110V(120V)	0 ~ 0.5KW	± 0.5KVar
		220V(240V)	0 ~ 1KW	± 1KVar
3-Phase 3-wire	5A	110V(120V)	0 ~ 1KW	± 1KVar
		220V(240V)	0 ~ 2KW	± 2KVar
3-Phase 4-wire	5A	190/110V (208/120V)	0 ~ 1.5KW	± 1.5KVar
		380/220V (416/240V)	0 ~ 3KW	± 3KVar

■ FEATURES

- Accuracy ± 0.2% RO.
- Watt, Var packaged in one case
- Precision measurement even for unbalance system
- Precision measurement even for distorted wave
- High impulse & surge protection (5KV)
- The case can be mounted on a 35mm rail which complies with DIN 46277

• OUTPUT

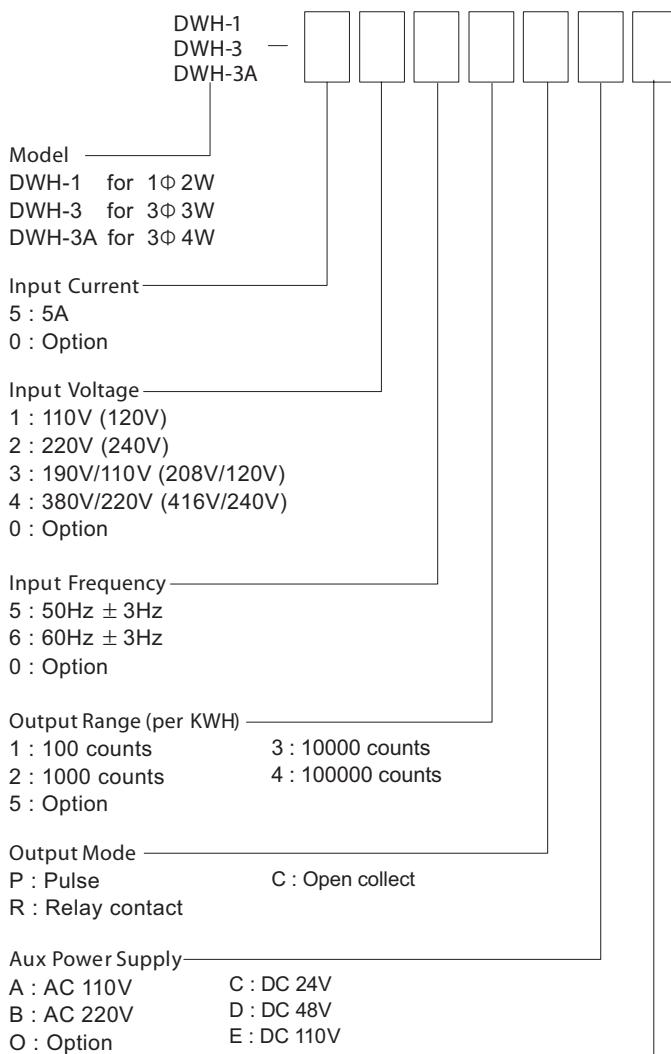
DC output Range	Load Resistance	Output Resistance	Output Ripple	Response Time
0 ~ 1V	≥ 1KΩ			
0 ~ 5V	≥ 1KΩ	≤ 0.05Ω		
1 ~ 5V	≥ 1KΩ			
0 ~ 10V	≥ 1KΩ			
0 ~ 1mA	0 ~ 10KΩ	≥ 20MΩ	≤ 0.5% RO. (peak)	≤ 400mS 0~99%
0 ~ 10mA	0 ~ 1KΩ			
0 ~ 20mA	0 ~ 500Ω			
4 ~ 20mA	0 ~ 500Ω	≥ 5MΩ		

Accuracy :	± 0.2% Rated of Output
Input frequency :	Watt 50Hz ± 3Hz or 60Hz ± 3Hz
Input frequency effect :	Var 50Hz or 60Hz
Input burden :	≤ 0.015%, per 0.01Hz (Only for VAR)
Aux. Power supply :	≥ 0.1VA (ampere input)
Power effect :	≤ 0.2VA (ampere input)
Power consumption :	≤ 0.1% RO
Waveform effect :	≤ 4.5VA, ≤ DC 3W
Output load effect :	≤ 0.2% RO, at distortion factor 15%
Electromagnetic balance effect :	current output ≤ 0.1% RO.
Mutual interference effect :	voltage output ≤ 0.05% RO.
Magnetic field strength :	≤ 0.1% RO. between element
Span adjustment range :	400A/M. ≤ 0.2% RO..
Zero adjustment range :	≥ 5% RO
Operating temperature range :	≥ 1% RO
Storage temperature range :	0 ~ 60 °C
Temperature coefficient :	-10~70 °C
Max. relative humidity :	≤ 100PPM from 0 to 60 °C
Isolation :	95%
Insulation resistance :	Input/output/power/case
Dielectric withstand voltage ;	≤ 100MΩ , DC 500V
(IEC 414, 688, ANSI, C37)	Between input/output/power/case
Impulse withstand test :	AC 3KV, 60Hz, 1min
(IEC 255-4, ANSI C37 90a)	5KV, 1.2x50μs
Performance :	Common mode & differential mode
Safety requirements :	Designed to comply with IEC688 IEC 414, BS5458

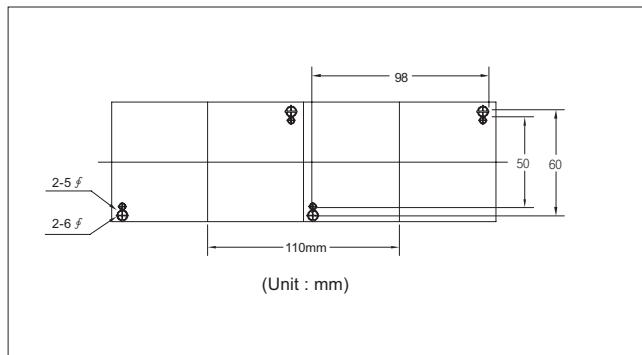
WATT HOUR TRANSDUCER

MODEL : DWH SERIES

■ ORDERING MODEL MAKE UP

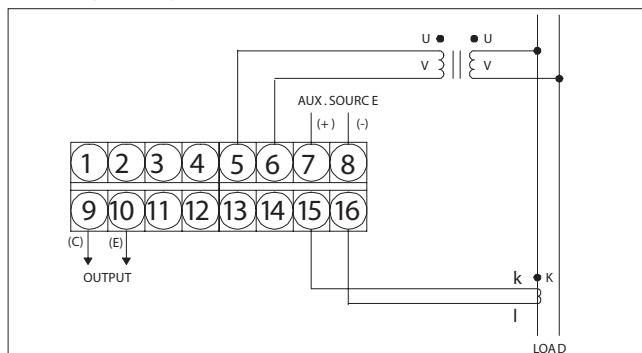


■ PANEL MOUNTING HOLES

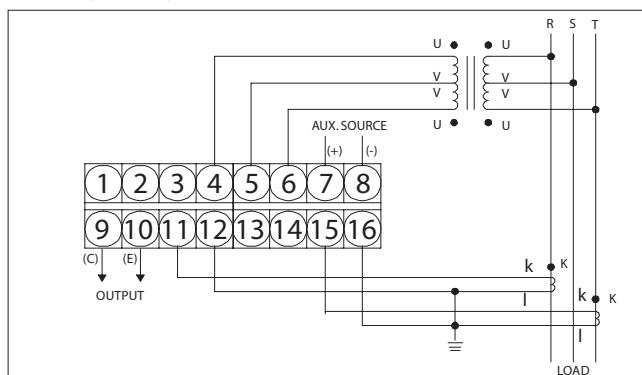


■ CONNECTION DIAGRAM

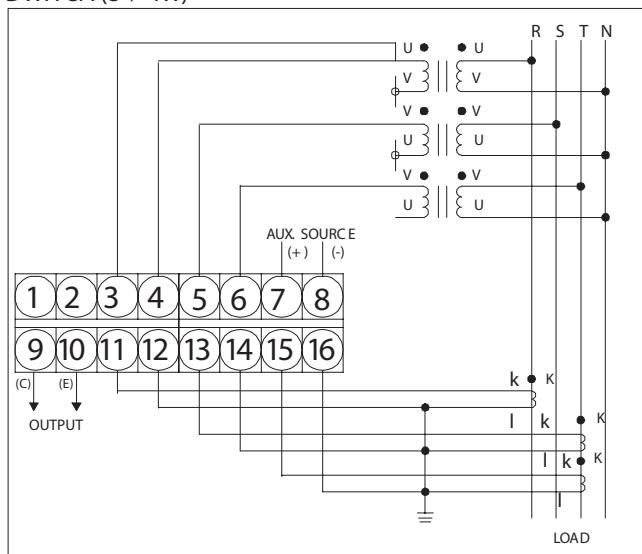
DWH-1 (1φ 2W)



DWH-3 (3φ 3W)



DWH-3A (3φ 4W)



■ THE OUTSIDE DIMENSION

