WATTHOUR/WATT TRANSDUCER AWHW

FEATURES

- Accuracy ±0.25% RO.
- Watthour, Watt packaged in one case
- 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 FOR WATT

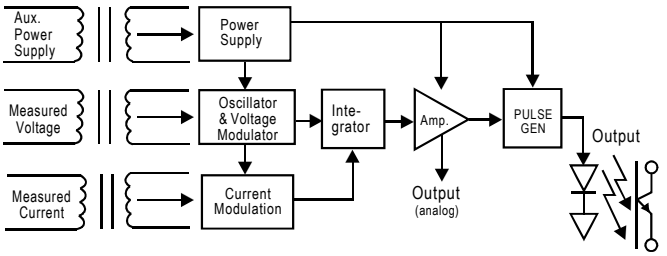
DC Output Range	Load Resistance	Output Resistance	Output Ripple	Response Time
0~1V	≥500 Ω	≤0.05 Ω	≤0.5% RO. (peak)	≤400mS. 0~99%
0~5V	≥500 Ω			
1~5V	≥500 Ω			
0~10V	≥500 Ω			
0~1mA	0~15K Ω	≥ 20M Ω		
0~10mA	0~1500 Ω	≥ 5M Ω		
0~20mA	0~750 Ω			
4~20mA	0~750 Ω			

Accuracy:	±0.25% Rated of Output
Input frequency:	50HZ± 3HZ or 60HZ±3HZ
Input burden:	≤0.2VA (ampere input) ≤0.1VA (voltage input)
Aux. power supply:	AC 110V±15%, 50/60HZ AC 220v±15%, 50/60HZ DC24V, 48V, 110V, ±15%
Power effect:	≤ 0.1% RO.
Power consumption:	≤4.5VA, ≤ DC 3W
Waveform effect:	≤0.01% RO. at distortion factor 15%
Output load effect:	Current output≤ 0.1% RO. Voltage output≤ 0.05% RO.
Mutual interference effect:	≤0.1% RO.
Electromagnetic balance effect:	≤0.1% RO. between element.
Magnetic field strength:	400A/M, ≤0.2% RO.
Span adjustment range:	≥5% RO.
Zero adjustment range:	≥2% RO.
Operating temperature range:	0~60°C
Storage temperature range:	-10~70°C
Temperature coefficient:	≤100PPM, 23°C ±10°C
Max. relative humidity:	95%
Isolation:	Input/output/power/case
Insulation resistance:	≥ 100MΩ, DC 500V
Dielectric withstand voltage: (IEC 414, 688, ANSI, C37)	Between input/output/power/case AC 3KV, 60HZ, 1 Min.
Impulse withstand test: (IEC 255-4, ANSI C37 90a)	5KV, 1.2 X 50us Common mode & differential mode
Performance:	Designed to comply with IEC688
Safety requirements:	IEC 414, BS5458

DESCRIPTION

Model: AWHW-1 for 1Ø2W, watthour/Watt
AWHW-3 for 3Ø3W, watthour/Watt
AWHW-3A for 3Ø4W, watthour/Watt

For kilowatt-hour measurement, we build in another Linear integrator Circuit. This circuit accepts signal from Watts portion and integrates with respect to time, to produce a pulsed output via volt free contacts, result in pulses proportional to kilowatt-hours.



SPECIFICATION

• INPUT

Input Range				
Circuit	**Amp**	**Voltage**	**Basic KWH**	**Basic Watt**
Single Phase	5A	110V(120V)	0~0.5KWH	0~0.5KW
		220V(240V)	0~1KWH	0~1KW
3-Phase 3-Wire	5A	110V(120V)	0~1KWH	0~1KW
		220V(240V)	0~2KWH	0~2KW
3-Phase 4-Wire	5A	190V/120V (208/120V)	0~1.5KWH	0~1.5KW
		380V/220V (416/240V)	0~3KWH	0~3KW

Max. Input Over Capability: Ampere: 3 X rated continuous
10 X rated 10 sec.
50 X rated 1 sec.
Voltage: 1.5 X rated continuous
2X rated 10 sec.
4X rated 2 sec.

• OUTPUT FOR WATTHOUR

Output Range		Output Mode		
per 1KWH	100 counts	Pulse DC 15V, 10mA	Open Collect DC 30V, 100mA	Relay Contacts SPDT, AC 110V, 0.5A DC 24V, 1A
	1000 counts			
	10000 counts			
	100000 counts			

WATTHOUR/WATT TRANSDUCER

ORDERING MODEL MAKE UP

AWHW-1
AWHW-3
AWHW-3A — [ ][ ][ ][ ][ ][ ][ ][ ]

Model
AWH-1 for 1φ2W
AWH-3 for 3φ3W
AWH-3A for 3φ4W

Input Current
5 : 5A
0 : Option

Input voltage
1 : 110V (120V) 2 : 220V (240V)
3 : 190V/110V 4 : 380V/220V
0 : Option

Input Frequency
5 : 50HZ ± 3HZ 6 : 60HZ ± 3HZ
O : Option

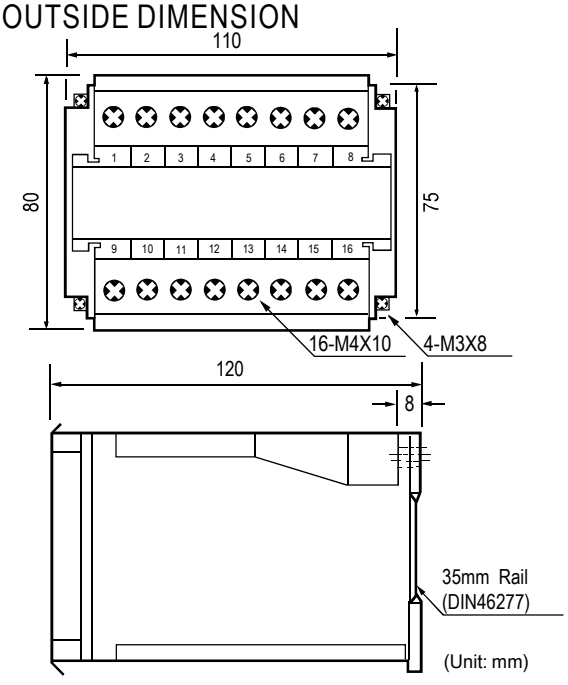
Output Range (Watt)
V1 : 0 ~ 1V A1 : 0 ~ 1mA
V2 : 0 ~ 5V A2 : 0 ~ 10mA
V3 : 1 ~ 5V A3 : 0 ~ 20mA
V4 : 0 ~10V A4 : 4 ~20mA
O: Option

Output Range (per KWH)
1.100 counts 3.10000 counts
2.1000 counts 4.100000 counts
5 : Option

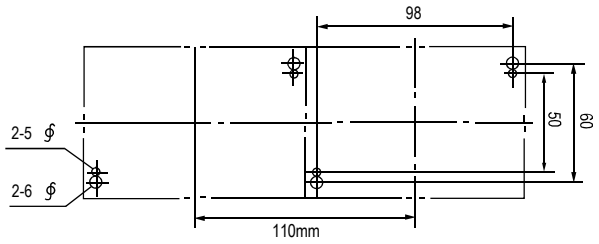
Output Mode
P : Pulse C : Open collect
R : Relay contact

Aux. Power Supply
A : AC 110V C : DC 24V
B : AC 220V D : DC 48V
O : Option E : DC 110V

THE OUTSIDE DIMENSION



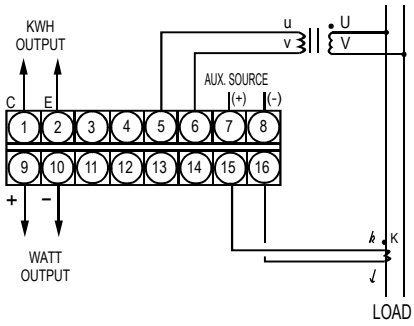
PANEL MOUNTING HOLES



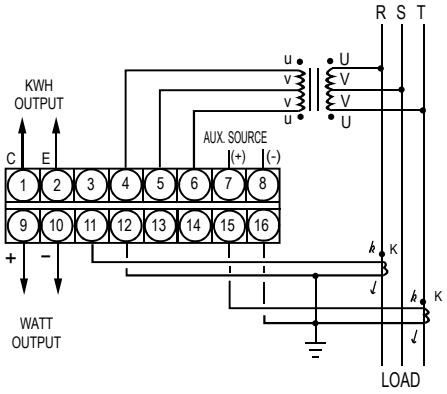
(Unit: mm)

CONNECTION DIAGRAM

AWHW-1 (1φ2W)



AWHW-3 (3φ3W)



AWHW-3A (3 φ4W)