

VARHOUR TRANSDUCER

ARH

FEATURES

- Accuracy $\pm 0.25\%$ RO.
- 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

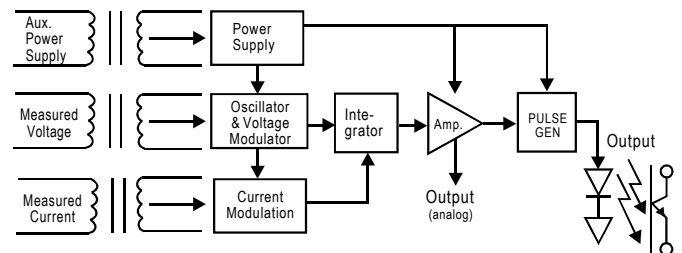
Output Range		Output Mode		
per 1KvH	100 counts	Pulse DC 15V, 10mA	Open Collect DC 30V, 100mA	Relay Contacts SPDT, AC 110V, 0.5A DC 24V, 1A
	1000 counts			
	10000 counts			
	100000 counts			

Accuracy: $\pm 0.25\%$ Rated of Output
 Input frequency: 50HZ or 60HZ
 Input frequency effect: $\leq 0.015\%$, per 0.01HZ
 Input burden: $\leq 0.2VA$ (ampere input)
 $\leq 0.1VA$ (voltage input)
 Aux. power supply: AC 110V $\pm 15\%$, 50/60HZ
 AC 220V $\pm 15\%$, 50/60HZ
 DC 24V, 48V, 110V, $+15\%$, -10%
 Power effect: $\leq 0.1\%$ RO.
 Power consumption: $\leq 4.5VA$, $\leq DC$ 3W
 Waveform effect: $\leq 0.01\%$ RO. at distortion factor 15%
 Electromagnetic balance effect: $\leq 0.1\%$ RO.
 Mutual interference effect: $\leq 0.1\%$ RO. between element.
 Magnetic field strength: 400A/M, 0.2% RO.
 Span adjustment range: $\geq 5\%$ RO.
 Zero adjustment range: $\geq 2\%$ RO.
 Operating temperature range: $0-60^{\circ}C$
 Storage temperature range: $-10-70^{\circ}C$
 Temperature coefficient: $\leq 100PPM$ $23^{\circ}C$ $10^{\circ}C$
 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 3KV, 60HZ, 1 Min.
 Impulse withstand test: 5KV, 1.2 X 50us
 (IEC 255-4, ANSI C37 90a) Common mode & differential mode
 Performance: Designed to comply with IEC688
 Safety requirements: IEC 414, BS5458

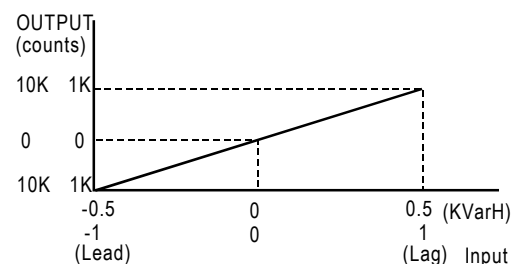
DESCRIPTION

Model : ARH-1 for 1 ϕ 2W, varhour
 ARH-3 for 3 ϕ 3W, varhour
 ARH-3A for 3 ϕ 4W, varhour

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



INPUT-OUTPUT CURVE



SPECIFICATION

INPUT

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

VARHOUR TRANSDUCER

ORDERING MODEL MAKE UP

ARH-1
ARH-3
ARH-3A

Model

ARH-1 for 1 ϕ 2W
ARH-3 for 3 ϕ 3W
ARH-3A for 3 ϕ 4W

Input Current

5: 5A
O: Option

Input voltage

1: 110V (120V)
2: 220V (240V)
3: 190V/110V (208/120V)
4: 380V/220V (416/240V)
O: Option

Input Frequency

5: 50HZ
6: 60HZ
o: Option

Output Range (per KVARH)

1.100 counts 3.10000 counts
2.1000 counts 4.100000 counts
5: Option

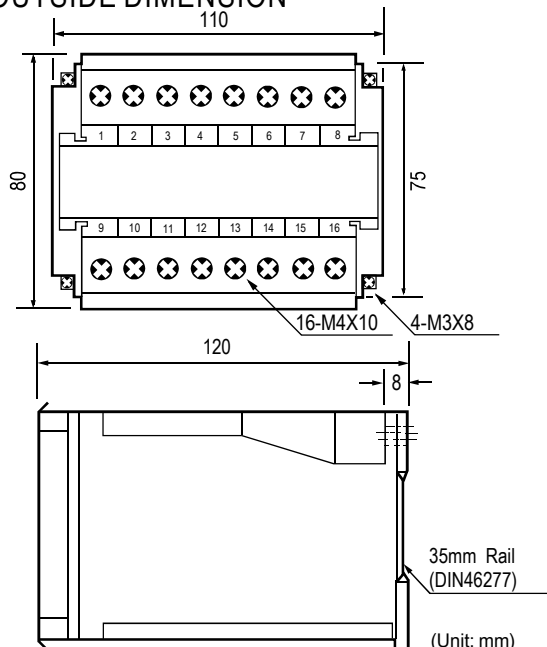
Output Mode

P: Pulse C: Open collect
R: Relay contact

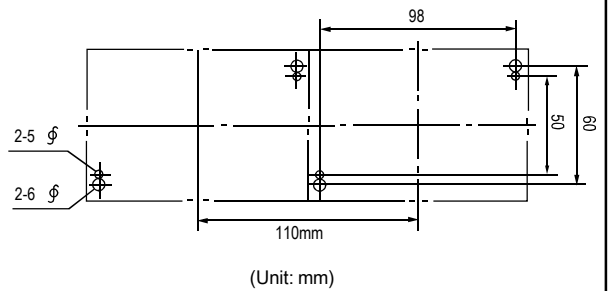
Aux. Power Supply

A: AC 110V C: DC 24V
B: AC 220V D: DC 48V
O: Option E: DC 110V

THE OUTSIDE DIMENSION

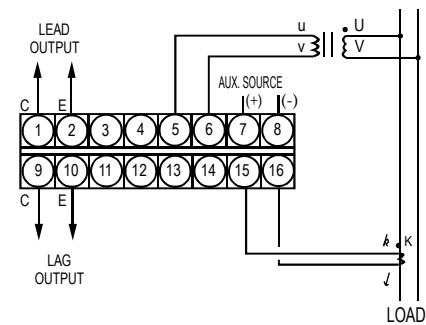


PANEL MOUNTING HOLES

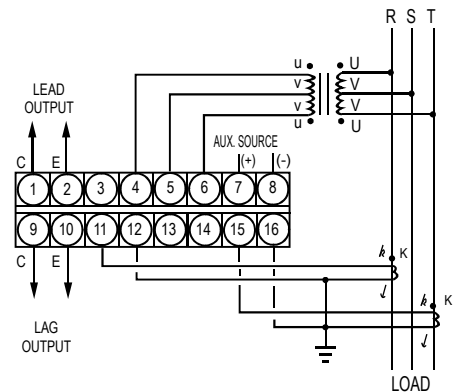


CONNECTION DIAGRAM

ARH-1 (1 ϕ 2W)



ARH-3 (3 ϕ 3W)



ARH-3A (3 ϕ 4W)

