

FEATURES

- Accuracy $\pm 0.2\%$ RO.
- Excellent long term stability(4~20mA, 750 Ω)
- Precision measurement even for distorted wave (AI-1T, AV-1T)
- High impulse & surge protection (5KV)
- The case can be mounted on a 35mm rail which complies with DIN 46277



SPECIFICATION

INPUT

Model	Input Range	Input Burden	Input Frequency	Max. Input Over Capability
AI-1 (AVG.) AV-1T (TRMS)	0~1A	$\leq 0.1VA$	50HZ ± 3 HZ or 60HZ ± 3 HZ	3 X rated continuous 10 X rated 10 sec. 50 X rated 1 sec.
	0~5A			
AI-1 (AVG.) AV-1T (TRMS)	0~150V	$\leq 0.2VA$		1.5 X rated continuous 2X rated 10 sec. 4X rated 2 sec.
	0~300V			

OUTPUT

DC Output Range	Load Resistance	Output Resistance	Output Ripple	Response Time
0~1V	$\geq 500 \Omega$	$\leq 0.05 \Omega$	$\leq 0.5\% \text{ RO. (peak)}$	$\leq 400\text{mS.}$ 0~99%
0~5V	$\geq 500 \Omega$			
1~5V	$\geq 500 \Omega$			
0~10V	$\geq 500 \Omega$			
0~1mA	0~15K Ω	$\geq 20\text{M} \Omega$		
0~10mA	0~1500 Ω	$\geq 5\text{M} \Omega$		
0~20mA	0~750 Ω			
4~20mA	0~750 Ω			

Remark: If DC Source, the output:
 0~1mA(0~10K Ω)
 0~10mA(0~1K Ω)
 0~20mA(0~500 Ω)
 4~20mA(0~500 Ω)

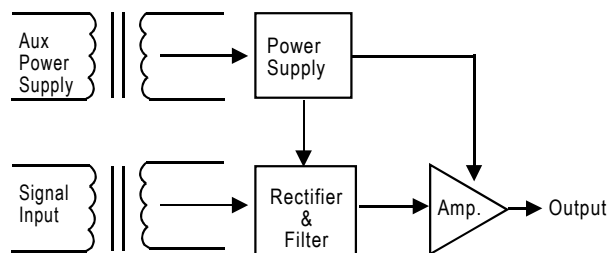
Accuracy: $\pm 0.2\%$ Rated of Output
 Aux. power supply: AC 110V $\pm 5\%$, 50/60HZ
 AC 220V $\pm 5\%$, 50/60HZ
 DC 24V, 48V, 110V, $\pm 15\%$, -10%
 Power effect: $\leq 0.1\%$ RO.
 Power consumption: $\leq 2.5VA$, $\leq DC 3W$
 Waveform effect: $\leq 0.2\%$ RO. at distortion factor 30%
 (DA-1T, DV-1T)
 Output load effect: current output $\leq 0.1\%$ RO.
 voltage output $\leq 0.05\%$ RO.
 400A/M. $\leq 0.2\%$ RO.
 Magnetic field strength: $\leq 5\%$ RO.
 Span adjustment range: $\geq 1\%$ RO.
 Zero adjustment range: $\geq 1\%$ RO.
 Operating temperature range: 0~60°C
 Storage temperature range: -10~70°C
 Temperature coefficient: $\leq 100PPM$ from 0 to 60°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)
 Impulse withstand test: AC 3KV, 60HZ, 1 min.
 (IEC 255-4, ANSI C37 90a)
 Performance: 5KV, 1.2 X 50us
 Common mode & differential mode
 Designed to comply with IEC688
 Safety requirements: IEC 414, BS5458

DESCRIPTION

Model: AI-1 for CURRENT input (AVG.)
 AV-1 for VOLTAGE input (AVG.)
 AI-1T for CURRENT input (TRMS)
 AV-1T for VOLTAGE input (TRMS)

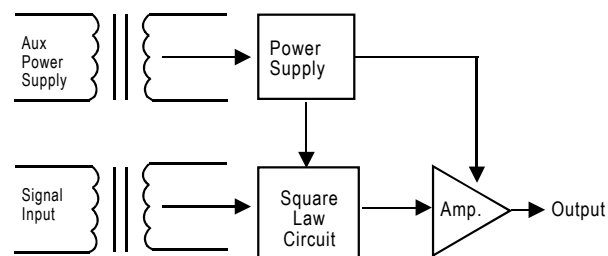
Sinusoidal Waveforms - AVG.

AI-1, AV-1 Transducer converting a sinusoidal alternating current or voltage into a dc output, proportional to the RMS value of input. These units are average sensing, but RMS calibrated for a sine wave with less than 1% distortion. The input signal is converted to a dc voltage which then feeds to a single stage amplifier and a dc output produced.

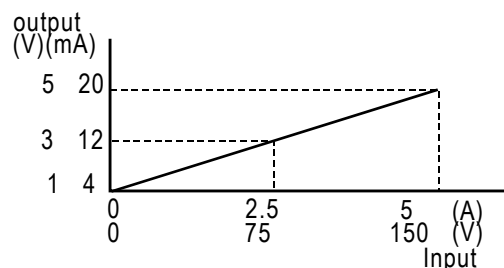


Non-Sinusoidal Waveforms - TRMS

AI-1T, AV-1T Transducer are designed for use on waveforms with up to 30% of 3rd harmonic content. The input signal is fed to an RMS detection circuit and the resultant dc volts produced are a linear function of the RMS value of input waveform. This dc voltage is converted to a milliamp outout via an output amplification circuit.



INPUT-OUTPUT CURVE



AC CURRENT, VOLTAGE TRANSDUCER(1Ø)

ORDERING MODEL MAKE UP

CURRENT TRANSDUCER

Model AI-1
AI-1T

Input Range 1
1: 0 ~ 1A
5: 0 ~ 5A
O: Option

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

Output Range V1
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

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

VOLTAGE TRANSDUCER

Model AV-1
AV-1T

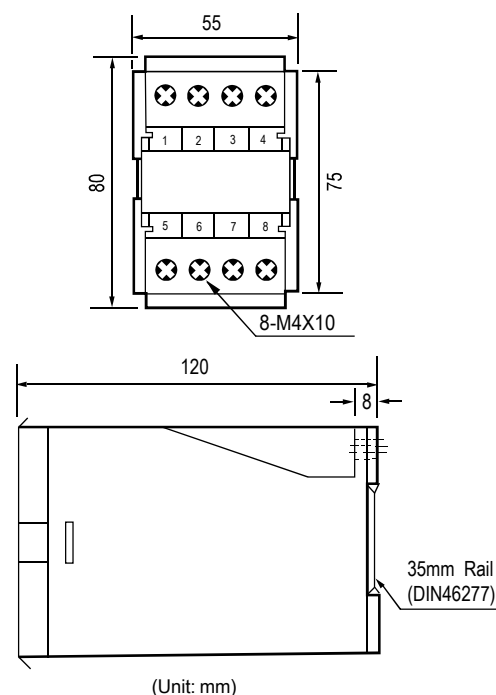
Input Range 1
1: 0 ~ 150V
5: 0 ~ 300V
O: Option

Input Frequency As AI-1, AI-1T

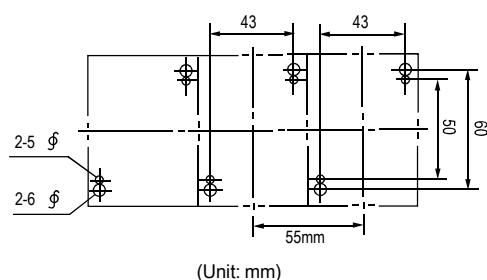
Output Range As AI-1, AI-1T

Aux. Power Supply As AI-1, AI-1T

THE OUTSIDE DIMENSION

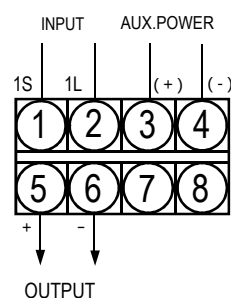


PANEL MOUNTING HOLES



CONNECTION DIAGRAM

AI-1, AI-1T



AV-1, AV-1T

