CA/CV AC CURRENT / VOLTAGE Transducer

■ FEATURE

- FOR AC CURRENT 0~1/~5/~10A,
  VOLTS 0~150/~300/~500V
- 1Phase(1 I/O), 3Phases(3 I/O)
- Precision measurement even for distorted waveform
- Self powered or Loop powered models available
- Output signal programmable by dip-switch
- Low output ripple
- High impulse & Surge protection
- High stability & low cost

■ SPECIFICATION

INPUT: Current or Voltage

	AC Input		Input Burden	Input Frequency
Current	Aux. Powered & Loop Powered	0 ~ 1 A	≦0.10VA	50 Hz ± 3 Hz
		0 ~ 5 A		60 Hz ± 3 Hz
		0 ~ 10 A		
	Self Powered	20%~100% of input range	≦1.50VA	50 Hz ± 1 Hz
				60 Hz ± 1 Hz
Voltage	Aux. Powered & Loop Powered	0 ~ 150 V	≦0.15VA	50 Hz ± 3 Hz 60 Hz ± 3 Hz
		0 ~ 300 V		
		0 ~ 500 V		
	Self Powered	20%~100% of input range	≦4.00VA	50 Hz ± 1 Hz
				60 Hz ± 1 Hz

OUTPUT: Current or Voltage O/P Programming by Dip Switch inside

Output Range	Load Resistance	Output Resistance	Output Ripple	
0 ~ 1 V	≧500Ω	≦0.001Ω	≦0.2% R.O.	Self-powered units can not be used for 4~20mA, 1~5V and 2~10V output.
0 ~ 5 V	≧500Ω;Self Powered:≧2KΩ			
0 ~ 10 V	≧1000Ω;Self Powered:≧2KΩ			
1 ~ 5 V	≧500Ω			
2 ~ 10 V	≧1000Ω			
0 ~ 1 mA	0 ~ 12KΩ	≧ 20MΩ		
0 ~ 10 mA	0 ~ 1200Ω;Self Powered:≧500Ω	≧ 6MΩ		
0 ~ 20 mA	0 ~ 600Ω;Self Powered:≧500Ω			
4 ~ 20 mA	0 ~ 600Ω			
Loop Powered 4 ~ 20 mA	Vs / (20 mA) - 900 ohm			

※When Aux Powered is DC，The Load Resistance is about 70%

Accuracy : ≦ ±0.2% of F.S.
Self Powered≦ ±0.2% of F.S

Waveform effect (trms type): ≦ 0.2% of F.S. at 30% distortion

Max. input over capability: Voltage: 1.5 x rated continuous
2 x rated for 10 seconds
4 x rated for 2 seconds
Current: 3 x rated continuous
10 x rated for 10 seconds
50 x rated for 1 second

Response time: ≦ 250 msec.

Span adjustment: ≦ ±5% of F.S. (or ±20% of F.S. specify)

Zero adjustment: ≦ ±2% of F.S. (or ±20% of F.S. specify)

Output load effect: Current output ≦ 0.1% of F.S.
Voltage output ≦ 0.05% of F.S.

Power supply: AC 115/230V ±15%, 50/60 Hz
AC 380 or 415V ±15%, 50/60 Hz
Option: DC 24V, 48V, 110V, 220V ±10%
Loop powered DC 18 ~ 32V
Self Powered: Not required
ADH:AC 85~264V，DC 100~300V
ADL:AC/DC 20~56V

Power effect: ≦ 0.05% of F.S.

Power consumption: ≦ 2.5VA (1P2W models) ≦ 6.5VA (3P3W models)
≦9 VA(ADH / ADL)

Mutual interference effect: ≦ 0.1% R.O. between each element

Magnetic field strength: 400ATM ≦ 0.2% of F.S.

Operating temperature: 0~60 ℃

Operating relative humidity: 20~95 %RH, non-condensing

Temperature coefficient: ≦ 100 PPM/℃

Storage temperature: -10~70 ℃

Dielectric Strength: IEC 414, IEC 688:1992, ANSI C37.90a
Between Input / Output / Power / Case
AC 4KV, 50/60Hz, 1 min.

Surge test: IEC 255-4, ANSI C37.90a
6KV, 1.2 x 50 µsec.
Common mode & differential mode

Insulation resistance: ≧ 100M ohm, DC 500V

Safety: IEC 414, BS 5458

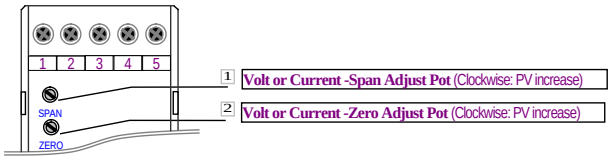
Enclosure: IEC 529 (IP50)

Mounting: Wall or DIN rail (EN 50022)

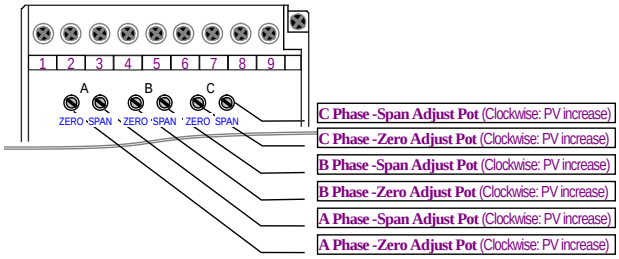
Weight: 1P: under 450g, 3P: under 650g

■ ADJUSTMENT

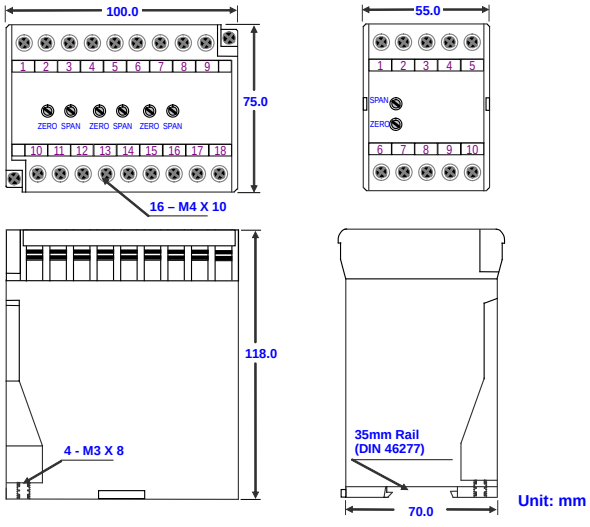
Volt or Current – 1 Phase



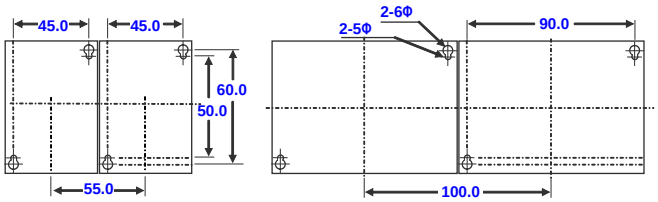
Volt or Current – 3 Phases



■ DIMENSIONS



■ PANEL MOUNTING HOLES



■ OUTPUT RANGE PROGRAMMING

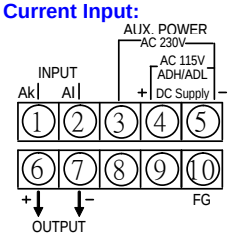
OUTPUT	Dip Switch							
	1	2	3	4	5	6	7	8
0 ~ 1 mA					on			
0 ~ 10 mA					on	on		
0 ~20 mA					on		on	
4 ~ 20 mA	on				on		on	
0 ~ 1 V		on	on	on				on
0 ~ 5 V			on	on				on
0 ~ 10 V				on				on
1 ~ 5 V	on		on	on				on
2 ~ 10 V	on			on				on

* Pads: blank fields mean open.

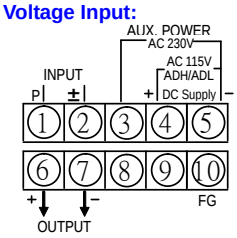
■ CONNECTION DIAGRAM

● 1 Phase (Auxiliary Powered)

Current Input:

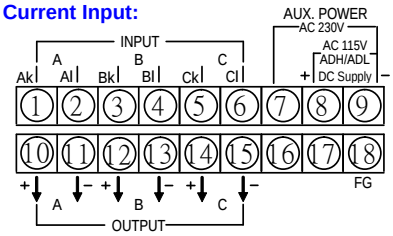


Voltage Input:

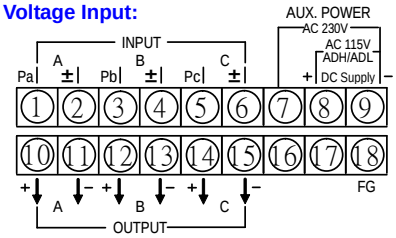


● 3 Phases (Auxiliary Powered)

Current Input:

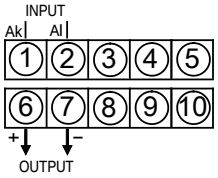


Voltage Input:

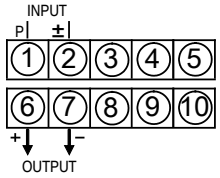


● 1 Phase (Self Powered)

Current Input:

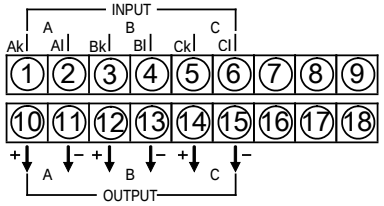


Voltage Input:

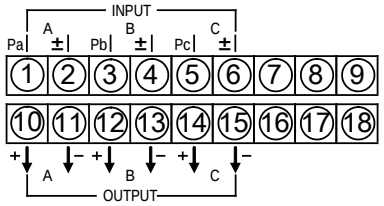


● 3 Phases (Self Powered)

Current Input:

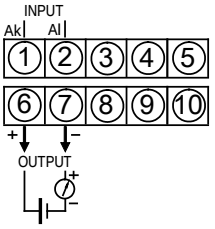


Voltage Input:

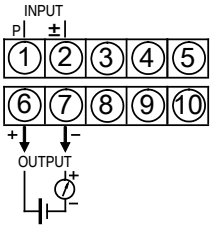


● 1 Phase (Loop Powered)

Current Input:



Voltage Input:



■ ORDERING INFORMATION

ADH&ADL only 1P2W can be selected

C — Input Type — Connection — Input — Input Freq. — Output — Aux. Power

CODE	INPUT TYPE
A	Current (Avg.)
AT	Current (Trms)
V	Voltage (Avg.)
VT	Voltage (Trms)

CODE	CONNECTION
12	1Phase (1 I/O)
33	3Phase (3 I/O)

CODE	INPUT
A1	0 ~ 1 A
A5	0 ~ 5 A
AA	0 ~ 10 A
V1	0 ~ 150 V
V3	0 ~ 300 V
V5	0 ~ 500 V
AO	Specify (A i/p)
VO	Specify (V i/p)

CODE	INPUT FREQ.
5	50Hz ±3Hz
6	60Hz ±3Hz
F	Specify

CODE	OUTPUT RANGE	CODE	OUTPUT RANGE
A1	0 ~ 1 mA	V1	0 ~ 1 V
A3	0 ~ 10 mA	V2	0 ~ 5 V
A4	0 ~ 20 mA	V3	0 ~ 10 V
A5	4 ~ 20 mA	V4	1 ~ 5 V
AO	Specify (mA o/p)	VO	Specify (V o/p)

* Self-powered units can not be used for 4~20mA, 1~5V and 2~10V output.

CODE	AUX. POWER
A1	AC 115/230 V
A2	AC 380 V
A3	AC 416 V
D2	DC 24 V
D4	DC 48 V
D1	DC 110 V
D3	DC 220 V
LP	Loop Powered
AS	Self Powered
DO	Specify DC
AO	Specify AC

ADH	AC85~264V ; DC100~300V
ADL	AC/DC 20~56V

TRMS measuring can not be used in Self Powered & Loop Powered type. And Loop Powered is only for 1 phase type.