

# CA/CV AC Current / Voltage Transducer

## FEATURES

- 1 Phase (1 I/O) or 3 Phase (3 I/O)
- Precision measurement even for distorted waveforms with our True RMS option
- Self-powered or loop-powered models available
- Output signal programmable by dip-switch
- Low output ripple
- High impulse & surge protection
- High stability & low cost
- High accuracy (<0.2% of F.S.) and 4kV isolation



## SPECIFICATIONS

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
	Self-Powered	0 ~ 10 A	≤ 1.50VA	50 Hz ± 1 Hz
		20%~100% of input range		60 Hz ± 1 Hz
Voltage	Aux. Powered & Loop Powered	0 ~ 150 V	≤ 0.15VA	50 Hz ± 3 Hz
		0 ~ 300 V		60 Hz ± 3 Hz
	Self-Powered	0 ~ 500 V	≤ 4.00VA	50 Hz ± 1 Hz
		20%~100% of input range		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	≥ 500 Ω	≤ 0.001 Ω	≤ 0.2%	Self-powered units can not be used for 4-20mA, 1-5V and 2-10V output.
0 ~ 5 V	≥ 500 Ω ; Self Powered: ≥ 2K Ω			
0 ~ 10 V	≥ 1000 Ω ; Self Powered: ≥ 2K Ω			
1 ~ 5 V	≥ 500 Ω			
0 ~ 1 mA	0 ~ 12K Ω	≥ 20M Ω	F.S.	
0 ~ 10 mA	0 ~ 1200 Ω ; Self Powered: ≥ 500	≥ 6M Ω		
0 ~ 20 mA	0 ~ 600 Ω ; Self Powered: ≥ 500			
4 ~ 20 mA	0 ~ 600 Ω			
Loop Powered 4 ~ 20 mA	Vs / (20 mA) - 900 Ω			

- Accuracy:** ≤ ±0.2% of F.S.
- Waveform effect** ≤ 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 ms
- Span adjustment:** ≤ ±5% of F.S.
- Zero adjustment:** ≤ ±2% of F.S.
- Output load effect:** Current output ≤ 0.1% of F.S.  
Voltage output ≤ 0.05% of F.S.
- Power supply:** ADH : AC 85~264V · DC 100~300V  
ADL : AC / DC 20~56V  
Loop powered DC 18 ~ 32V
- Power effect:** ≤ 0.05% F.S.
- Power consumption:** ≤ 10 VA(1P2W) ; ≤ 12 VA(3P3W)
- Mutual interference effect:** ≤ 0.1% R.O. between each element
- Magnetic field strength:** 400ATM ≤ 0.2% F.S.
- Operating temperature:** 0~60°C
- Operating relative Temperature coefficient:** 20~95 %RH, non-condensina  
≤ 100 PPM/°C
- Storage temperature:** -10~70°C
- Dielectric Strength:** IEC 414, IEC 688:1992, ANSI C37.90a  
Between Input / Output / Power / Case

Surge test:

AC 4KV, 50/60Hz, 1 minute  
IEC 255-4, ANSI C37.90a  
6KV, 1.2 x 50 μsec.

Insulation resistance:

Common mode & differential mode  
≥ 100MΩ, DC 500V

Safety:

IEC 414, BS 5458

Enclosure:

IEC 529 (IP50)

Certification Standards

IEC 60688

CE:

EMC:EN61326:2003

Safety(LVD):

EN61010:2001

Case material:

ABS Non-flammable (UL 94V-0)

Mounting:

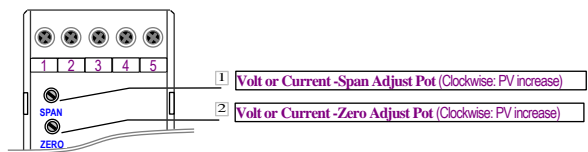
Wall or DIN rail (EN 50022)

Weight:

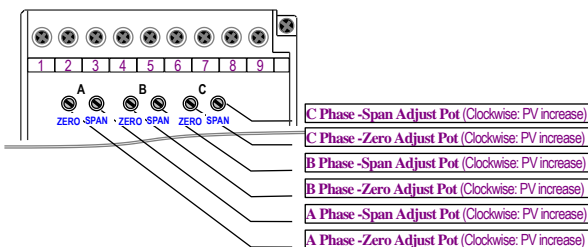
1P: approx. 500g, 3P: approx. 750g

## ADJUSTMENT

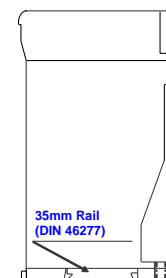
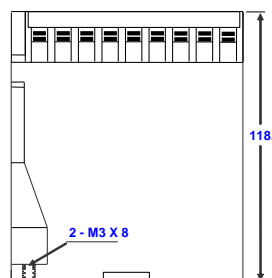
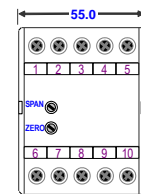
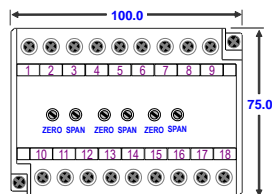
Volt or Current – 1 Phase



Volt or Current – 3 Phases



## DIMENSIONS



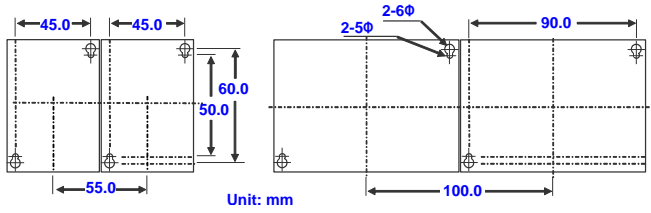
Unit: mm



**University**  
UNIVERSITY PATON INSTRUMENTS - THE EDUCATED CHOICE



## PANEL MOUNTING HOLES



## OUTPUT RANGE PROGRAMMING

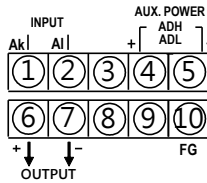
OUTPUT	Dip Switch							
	1	2	3	4	5	6	7	8
0 ~ 1 mA					on			
0 ~ 10 mA					on	on		
0 ~ 20 mA					on		on	
4 ~ 20 mA	on				on		on	
0 ~ 1 V		on	on	on				on
0 ~ 5 V			on	on				on
0 ~ 10 V				on				on
1 ~ 5 V	on		on	on				on

\* Pads: blank fields mean open.

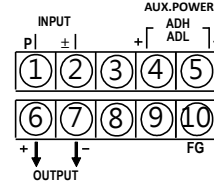
## CONNECTION DIAGRAM

### 1 Phase (Auxiliary Powered)

Current Input:

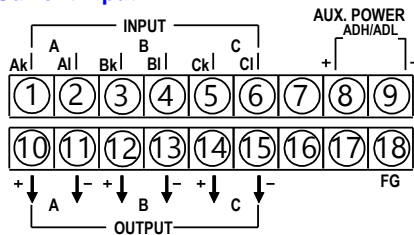


Voltage Input:

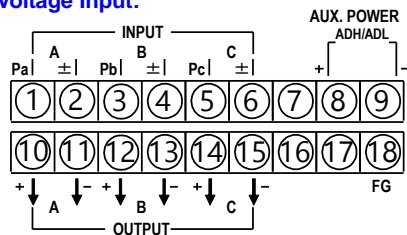


### 3 Phase (Auxiliary Powered)

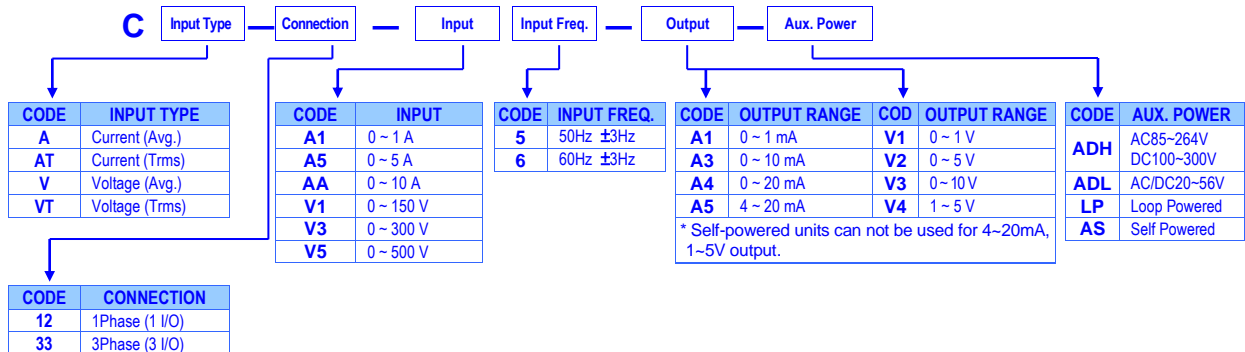
Current Input:



Voltage Input:

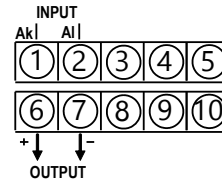


## ORDERING INFORMATION

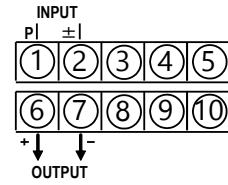


### 1 Phase (Self Powered)

Current Input:

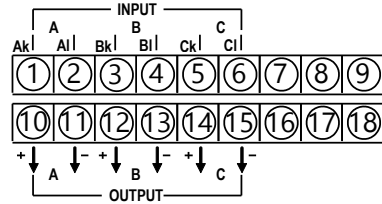


Voltage Input:

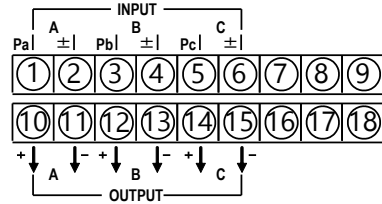


### 3 Phase (Self Powered)

Current Input:

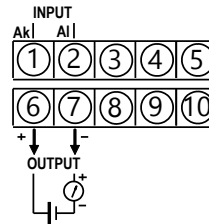


Voltage Input:



### 1 Phase (Loop Powered)

Current Input:



Voltage Input:

