

AC CURRENT & VOLTAGE TRANSDUCERS

CA/CV

► FEATURES

- Measures AC AMPS or VOLTS. Single or 3 Phase
- True RMS option for distorted waveforms
- Self powered or Loop powered models available
- 0.2% fs Accuracy and 4kV/1min dielectric strength
- Output signal programmable by dip-switch
- Low output ripple
- High impulse & Surge protection
- High stability & low cost



► SPECIFICATION

INPUT:

| | AC Input | Input Burden | Input Frequency |
|---------|-----------------------------|-------------------------|------------------------------|
| Current | Aux. Powered & Loop Powered | 0 ~ 1 A | 50 Hz ± 3 Hz 60 Hz ± 3 Hz |
| | | 0 ~ 5 A / 10A | |
| | Self Powered | 20%~120% of input range | 50 Hz ± 1 Hz 60 Hz ± 1 Hz |
| Voltage | Aux. Powered & Loop Powered | 0 ~ 150 V | 50 Hz ± 3 Hz 60 Hz ± 3 Hz |
| | | 0 ~ 300 V | |
| | | 0 ~ 500 V | |
| | Self Powered | 20%~120% of input range | 50 Hz ± 1 Hz 60 Hz ± 1 Hz |

OUTPUT:

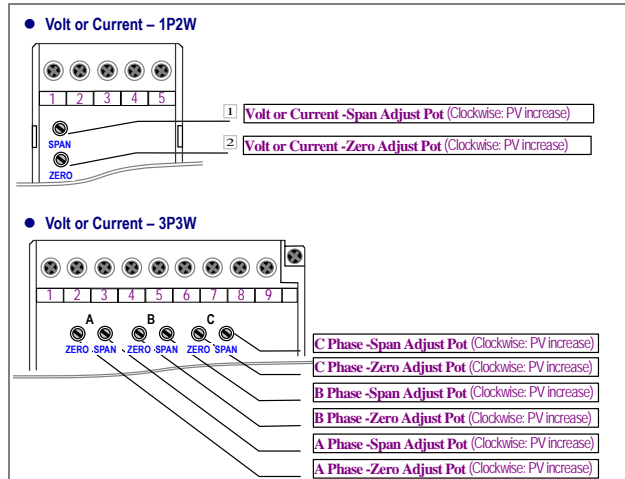
| Output Range | Load Resistance | Output Resistance | Output Ripple |
|--------------|------------------------|-------------------|---------------|
| 0 ~ 1 V | ≧ 50 ohm | ≧ 0.001 ohm | ≧ 0.2% R.O. |
| 0 ~ 5 V | ≧ 250 ohm | | |
| 0 ~ 10 V | ≧ 500 ohm | | |
| 1 ~ 5 V | ≧ 250 ohm | | |
| 2 ~ 10 V | ≧ 500 ohm | ≧ 20M ohm | |
| 0 ~ 1 mA | 0 ~ 15K ohm | | |
| 0 ~ 5 mA | 0 ~ 3000 ohm | | |
| 0 ~ 10 mA | 0 ~ 1500 ohm | | |
| 0 ~ 20 mA | 0 ~ 750 ohm | ≧ 6M ohm | |
| 4 ~ 20 mA | 0 ~ 750 ohm | | |
| Loop Powered | Vs / (20 mA) - 900 ohm | | |
| 4 ~ 20 mA | ohm | | |

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

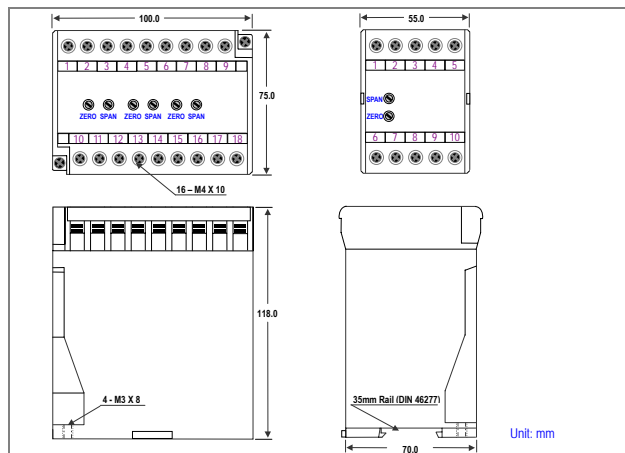
- Accuracy :** ≧ ±0.2% of F.S.
- Waveform effect (trms type):** ≧ 0.2% of F.S. at 30% distortion
- Max. input over capability:** Voltage: 1.5 x rated continuous
2 x rated for 10 seconds
4 x rated for 2 seconds
Current: 3 x rated continuous
10 x rated for 10 seconds
50 x rated for 1 second
- Response 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
- Power effect:** ≧ 0.05% R.O.
- Power consumption:** ≧ 2.5VA (1P2W models)
≧ 6.5VA (3P3W models)
- Mutual interference effect:** ≧ 0.1% R.O. between each element
- Magnetic field strength:** 400ATM ≧ 0.2% of F.S.
- Operating temperature:** 0~60 °C
- Operating relative humidity:** 20-95 %RH, non-condensing
- Temperature coefficient:** ≧ 100 PPM/°C
- Storage temperature:** -10~70 °C

- Dielectric Strength:** IEC 414, IEC 688:1992, ANSI C37.90a
Between Input / Output / Power / Case
AC 4KV, 50/60Hz, 1 min.
IEC 255-4, ANSI C37.90a
6KV, 1.2 x 50 µsec.
Common mode & differential mode
- Surge test:**
- Isolation:** ≧ 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

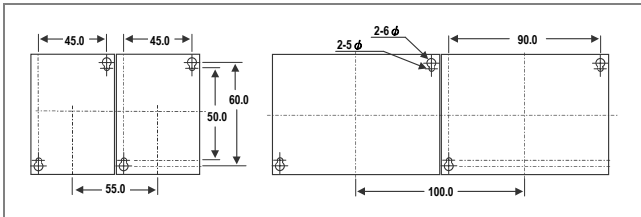
► ADJUSTMENT



► DIMENSIONS



▶ PANEL MOUNTING HOLES



▶ OUTPUT RANGE PROGRAMMING

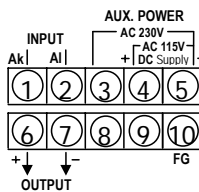
| OUTPUT | Dip Switch | | | | | | | | Pads | |
|-----------|------------|----|----|----|----|----|---|----|---------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | JP6(3P) | JP7(1P) |
| 0 - 1 mA | | | | on | | | | | | |
| 0 - 5 mA | | | | on | on | | | | ■ | ■ |
| 0 - 10 mA | | | | on | on | | | | | |
| 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 | | |
| 2 - 10 V | on | | on | | | | | on | | |

* Pads: (1) ■ closed by soldering. (2) blank fields mean open.

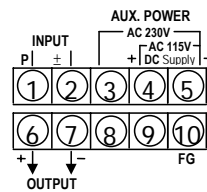
▶ CONNECTION DIAGRAM

● 1Φ2W (Auxiliary Powered)

Current Input:

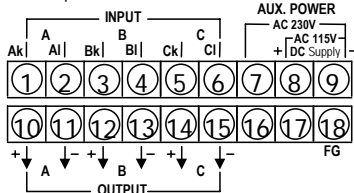


Voltage Input:

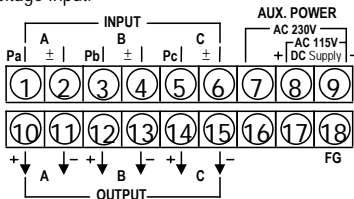


● 3Φ3W (Auxiliary Powered)

Current Input:

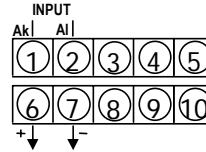


Voltage Input:

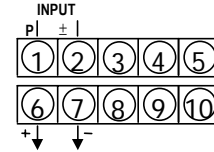


● 1Φ2W (Self Powered)

Current Input:

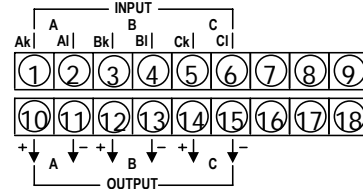


Voltage Input:

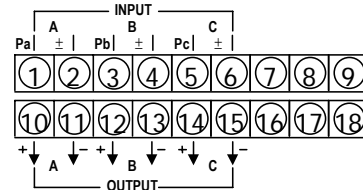


● 3Φ3W (Self Powered)

Current Input:

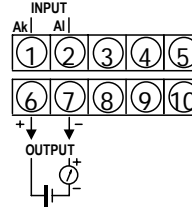


Voltage Input:

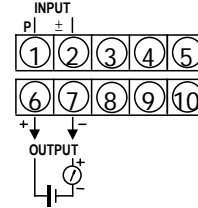


● 1Φ2W (Loop Powered)

Current Input:



Voltage Input:



▶ ORDER CODING

TRMS measurement cannot be used in Self Powered & Loop Powered models.

