



# Programmable Transducer

Instrument  
Division

## Single Phase Transducer - Voltage / Current



### DESCRIPTION

AE Transducers converts various electrical parameters viz. VOLTAGE(V), CURRENT(I) into DC Current output. The transducer gives galvanically isolated and load independent output. These are used in various electrical, thermal, chemical & other power plants to monitor processed data either locally or from remote using various devices such as indicating meters, data loggers, recorders, PLC systems. These transducers can also be used as external unit in conjunction in analog or digital indicators.

### FEATURES

- Fully Programmable CT/PT Ratio.
- 4 Digit 7 Segment LED Display.
- 0.5 accuracy class.
- Open & short circuit protection.
- Two galvanically isolated Outputs.
- Standard DC Current output are independent of load impedance.
- Password Protection.
- Continuous conversion of RMS current or voltage without constant component.

### APPLICABLE STANDARDS

<b>IEC 60688</b>	Electrical measuring transducers for converting A.C. and D.C. electrical quantities to analogue or digital signals.
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### ELECTRICAL SPECIFICATIONS

- TYPE : Programmable Transducer PT-r Series
- INPUT PARAMETER : AC: Voltage/Current
- INPUT PARAMETER RANGES
  - VOLTAGE : AC: 0 - 500V.
  - CURRENT : AC: 1A/5A.
- OUTPUT RANGE : 4-20mADC @ 500 ohm.
- OPEN CIRCUIT VOLTAGE : 24 VDC (± 2V)
- CT/PT PRIMARY : Programmable Through Front Switches
- CT/PT SECONDARY : Programmable Through Front Switches
- ACCURACY : ±0.5% of full scale value.
- AUX SUPPLY : 85-285 V AC/DC.



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- NOMINAL FREQUENCY : 50Hz  $\pm$ 10 %
- VA BURDEN : For Voltage  $\leq$ 0.1, For Current  $\leq$ 0.2, For AUX. Supply  $\leq$ 3 VA
- RIPPLE : Max. 0.5 % of span . < 0.5% peak to peak at full load.
- RESPONSE TIME :  $\leq$ 300 msec.
- DIAELECTRIC TEST : 2 kV RMS for 1 minute.
- IMPULSE VOLTAGE : 5 kV 1.2/50  $\mu$ sec.
- INSULATION RESI. :  $\geq$  20M ohm at 500V DC
- O/P ISOLATION : 500V RMS (2kV optional).

### INPUT OVERLOAD CAPACITY

Measured Quantity	No. of Applications	Duration of Applications	Interval between Two successive Applications
2 x I <sub>N</sub>	Continues	-----	-----
10 x I <sub>N</sub>	5	15 sec.	5 minute
40 x I <sub>N</sub>	1	1 sec.	-----
1.5 x I <sub>N</sub>	Continues	-----	-----
2 x U <sub>N</sub>	10	10 sec.	10 sec.
4 x U <sub>N</sub>	1	2 sec.	-----

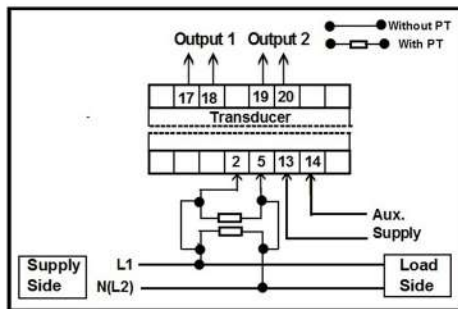
### INSTALLATION DATA

- MECHANICAL DESIGN : 130 X 70 X 108(h) mm.
- MATERIAL OF HOUSING : Engineering Plastic.
- MOUNTING : DIN Rail channel 35X7.5mm / Wall Mount with 2 Screw.
- WEIGHT : 300 gm
- CROSS SECTION OF WIRE : 2.5 sq.mm with rectangular fork type copper terminal lug (Insulated).
- Enclosure Protection : Case IP50/ Terminal IP30 Complies.

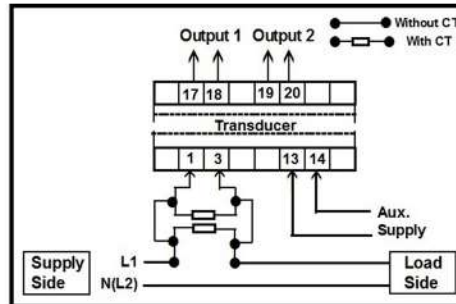
### ENVIRONMENTAL CONDITIONS.

- OPERATING TEMP : 0° TO 55°C
- STORAGE TEMP : -20° TO +70°C
- HUMIDITY : Up to 95% RH non condensing

### TYPICAL WIRING DIAGRAM.



VOLTAGE



CURRENT

### MECHANICAL SPECIFICATIONS:

MODEL - PT<sub>r</sub>

