

TECHNICAL DATA SHEET FOR D2 PTV1

Introduction

Minilec offers Power Line Transducers for measuring parameters like AC Voltage.

These Transducers provide galvanically isolated load independent output proportional to the input parameter range. Standardization of output assures complete compatibility with the most of recording, indicating, telemetering and control equipments. It also reduces maintenance and inventory problems. Use of latest circuit techniques and quality components ensures reliable operation over long periods.

Minilec Transducers are widely used in application areas where accurate and reliable monitoring of AC electrical parameters is essential such as in Power Utilities, State Electricity Boards, Steel, Cement, Chemicals, Fertilizers, and Petrochemicals industries.



AC Voltage Transducer

Salient Features

- Fully solid state compact design
- State of Art circuit techniques
- Rugged to withstand harsh environments
- Wide selection of input voltage
- Choice of standardised load independent output
- Complete galvanic isolation between Input, Output, Auxiliary Supply
- DIN Rail, Panel Wall mounting
- High long term stability and reliability

Applications

- Electrical Utilities
- Motor and Power Control Circuits
- Process Monitoring and Control Energy Management
- Feedback Control Elements
- Monitoring, Recording and Supervisory Control and Data Acquisition
- Telemetering
- Power Generation, Transmission and Distribution
- Captive Power Plants

Our Products Categories

- ▶ Phase Failure Relays
- ▶ V/I/F/Reveres power Monitoring Relays
- ▶ Electronic Timers
- ▶ EFR/ELR,CBCT Motor & Pump Protection Relay
- ▶ Liquid Level Controllers
- ▶ Multifunction Meter
- ▶ Twin AC controller
- ▶ Alarm Annunciators
- ▶ Booters Pump Controller
- ▶ V/I/F/KW/KVAR/Phase Angle/Bidirectional/DC Signal Isolator/ Tap Position/Resistance/Temp/ Multifunction Transducers

AC Voltage Transducer

Operations :

The input voltage signal is scaled down through interposing potential transformer. The scaled down signal is fed to a precision rectifier stage, its output is processed to provide DC Voltage / Current output proportional to input AC voltage. The output signal is calibrated for RMS value.

For HT application, Specify PT Ratio and Primary Side Range to derive corresponding Input Range.

Specifications :

Input Range	:	0 - 75 V AC, 0 - 125 V AC, 0 - 150 V AC, 0 - 250 V AC,	0 - 300 V AC, 0 - 500 V AC, 50 - 75 V AC, 50 - 150 V AC,	85 - 135 V AC, 175 - 275 V AC, 150 - 300 V AC, 300 - 500 V AC.
No. of Inputs	:	Single		
Measurement Type	:	Average, True RMS		
Output Range	:	0 - 1 mA DC, 0 - 10 mA DC,	0 - 20 mA DC, 4 - 20 mA DC,	0 - 5 V DC, 0 - 10 V DC
No. of Outputs	:	One No. / Two Nos.		
Auxiliary Supply	:	110, 240, 415 V AC $\pm$ 20%, 12, 24, 30, 48, 110, 220 V DC $\pm$ 20% 18 - 60 V DC, 80 - 300 V AC / DC		

Specifications

minilec[®]

Auxiliary Supply	18-60/24/30/48 VDC $\pm$ -20%, 80-300 VAC / DC, 50 Hz
Power Consumption	3.5 VA-AC, 4 VA-DC 24/30/48 VDC $\pm$ -20%
Input Value V in	63.5/110/240/415 V
DC Output (Single / Dual)	0-1, 0-10, 0-20, 4-20mA DC, 0-5, 0-10V DC Other Optional on request
No of Signal Output	Single (Optional Dual Output)
Response Time	Less than 500 milliseconds
Input / Output Isolation	Galvanic
Insulation Resistance	More than 100 MOhms at 500 V DC
Temperature	0°C to + 55°C
Humidity	Up to 95% Rh non condensing
Dimensions (L x W x D) in mm	75 mm x 56.5 mm x 117.5 mm.
WEIGHT	440 gms.

Common Specifications

Output Load Resistance (Rout) - For Current Output - For Voltage Output	Max. 10V / Iout (Optional Max.15 V / Iout) 10 KOhm (min)
Output Ripple	Less than 0.5% of Span (Peak to Peak)
Auxiliary Supply Burden	Less than 4 VA
Insulation Resistance	More than 100 MOhms at 500 V DC
Zero & Span Adjustment Potentiometers	Optionally Provided, Externally Accessible
Accuracy Class under Ref. Conditions	$\pm$ 0.2% / $\pm$ 0.5% of Span
Terminals	Suitable for 2.5 sq. mm Wires
Enclosure Type	ABS Plastic Enclosure, Ingress Protection Rating IP 40

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