

POWERLINE TRANSDUCERS

Overview

The **CANPWR 1.0 Powerline Transducers for Single Phase measurements** are useful in remote monitoring of Powerline parameters. These are intelligent Transducers designed with the latest state of art technology and provide flexibility of S/W configuring the parameters to suit the application requirements.

True RMS measurement of Input Voltage (Vac) & Current (Iac) ensures accuracy in measurement and computation of various parameters, **Viz. Vac, Iac, Frequency, Power Factor, Power (Active/Reactive/Apparent).**

The **CANPWR 1.0 Powerline Transducers** interface with AC voltage (e.g. 0-110/230/440 V) & AC Current (CT signals: 0-1A, 0-5A) inputs to provide isolated 0-10V/4-20mA DC output accurately proportional to the parameter to be measured. Provision is available for up to 2 nos. of Isolated 0-10V/4-20mA outputs to enable interface with multiple data acquisition systems. Additionally, RS485 Interface with MODBUS communication interface is provided for serial communication with remote systems.

High Isolation level (3.5KV) of Input signals allows measurement in the presence of High Common mode voltages at the input while ensuring safety of the measuring equipment.

The **CANPWR 1.0 Powerline Transducers** comply with the recommendations of IS 14570:2012 & IEC 60688:2002.



Features

- ✓ Used for measurement of:
- ✓ **AC Voltage (Vac)**
- ✓ **AC Current (Iac)**
- ✓ **Line Frequency (Hz)**
- ✓ **Phase Angle (Degrees)**
- ✓ **Power factor (cos Φ)**
- ✓ **Active Power (Watts)**
- ✓ **Reactive Power (VAR)**
- ✓ **Apparent Power (VA)**
- ✓ Analog Output: 0-10V/4-20mA
- ✓ Up to 2 nos. of 4-20mA op's
- ✓ RS485 MODBUS Interface
- ✓ Accuracy Class: 0.5
- ✓ Low Noise & Low drift for long term stability
- ✓ Isolation: 3.5KV for Inputs
- ✓ Designs comply with recommendations of IS 14570:2012 & IEC 60688:2002.

Applications

- **Power Systems parameter Measurement & Monitoring**
- **Smart Grid Systems**
- **Solar & Wind Power Systems**

Technical Specifications:		
AC Input Voltage Signal (From PT)	Input Options: 0-110/240/480 V _{AC}	Factory Set
AC Input Current Signal (From CT)	0-1/5/10 A _{AC}	Factory Set
Frequency	50/60Hz ±5Hz	Factory Set
C.T Burden		<0.5VA
Input Impedance	For Voltage	1M Ohm
DC Output Signal	Output Options: 0 – 10VDC/4 – 20mADC	Factory Set
	No. of Outputs	1/2 (Max. 2 nos.)
Load Resistance	0–10VDC Output	>1KOhms
	4–20mA Output	< 500 Ohms
Performance	Accuracy Class	0.5
	Linearity	0.1%
	Temperature Drift	0.01% / °C
	Response Time	< 350mSec
	Calibration	USB Interface for Setting O/P's.

General Specifications		
Isolation		3.5KV: Inputs (V & I) w.r.t. O/P's & Supply 2KV: O/P's w.r.t. Supply 2KV: Between O/P's
Power Supply		90-270V _{AC} , 50/60Hz, or 100-250V _{DC}
	Power Consumption	5VA Approx.
Enclosure ABS Plastic, 35 mm DIN Rail Mounted. IP40 Protection class.	Single /Dual Output	W – 70mm H – 75mm D – 110mm
Operating temp. range		0 – 55°C
Storage temp. range		-10 – +60°C
Relative Humidity		0– 90% RH Non-Condensing
Max. Altitude		3000 mts above MSL

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Ordering Information:

CANPWR X.X SERIES	Phase	Supply	Input	Output	No. of O/P's	Accuracy Class
	X	S	I	O	X	A
CANPWR 1.0 (Powerline Transducers with Fixed O/P)	Single: 1	90 – 270V _{AC} : U	Vrms: 0 Irms: 1 Frequency: 2 Angle: 3 Power factor: 4 Active Power (W): 5 Reactive Power (VAR): 6 Apparent Power (VA): 7	0–10VDC :10 4–20mADC: 42	Single: 1 Dual: 2	0.5
e.g. Single-phase Powerline Transducers having; I/P: Vrms; O/P: 4-20mADC & Dual O/P: CANPWR 1.0 – 1U0422 – 0.5 Single phase Powerline Transducers having; I/P: Irms; O/P: 4-20mADC & Dual O/P: CANPWR 1.0 – 1U1422 – 0.5						

Terminal Details: Current Input & Dual 4–20mA Outputs

PIN	Details	PIN	Details
1	NC	14	NC
2	NC	15	NC
3	NC	16	NC
4	NC	17	NC
5	–Vac	18	NC
6	–Vac	19	NC
7	–Iac	20	NC
8	–Iac	21	NC
9	NC	22	NC
10	NC	23	–Output 2
11	Phase	24	+Output 2
12	Neutral	25	–Output 1
13	Earth	26	+Output 1



About Us

CANOPUS INSTRUMENTS is engaged in the development & manufacturing of industrial automation and process control instrumentation products. The product areas cover mainly Analog Signal Conditioning Instruments for Process Automation, Embedded Systems & Ultrasonic Equipment for Non-Destructive Testing Applications.

All the CANOPUS range of products are designed and manufactured with special care, to ensure trouble free performance in Industrial applications where Electromagnetic Interference (EMI) & Harsh environmental conditions exist.

Today these products come to our customers with the quality assurance and tech-support in H/W & S/W, which has evolved with our experience of over 25 years, to ensure uninterrupted operation in field conditions. This has enabled us to successfully create an installed base of tens of thousands of units performing satisfactorily in a wide spectrum of Critical Real time Industrial applications all over India and in other parts of the world.

INNOVATION – QUALITY – RELIABILITY

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