

Isolated AC voltage sensor

CDA02-1000V

OVERVIEW

Applications and usage

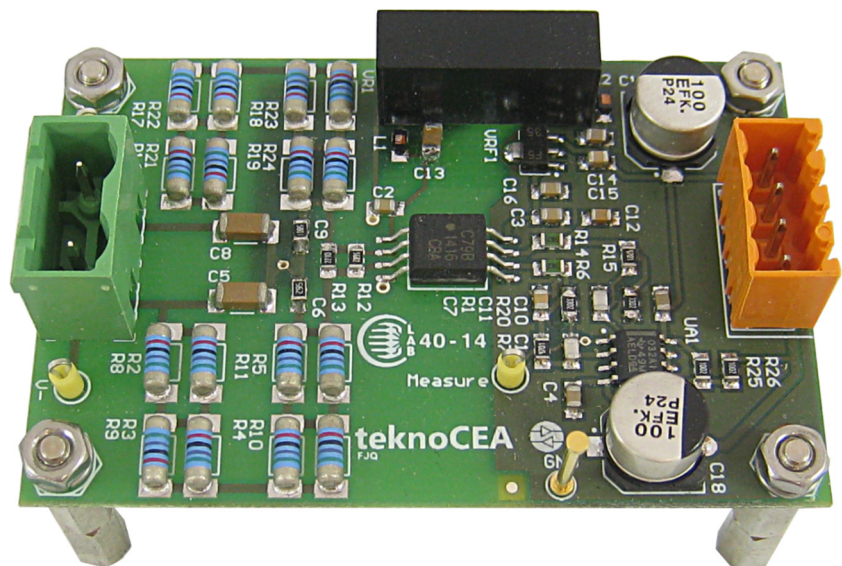
- *Isolated AC and DC voltage measurement with high common—mode components*
- *Grid connected converters*
- *Multi input—multi output converter systems*

The CDA02-1000V isolated voltage sensor can be used to measure AC or DC voltage up to $\pm 1000 V_{pp}$. The input range can be adjusted. The analog output ranges from $-10 V$ to $10 V$, with a 5% accuracy and a high common-mode rejection ratio. Its design provides a high voltage isolation, up to $3000 V_{DC}$ for 1 second and $1500 V_{AC}/50 Hz$ for 1 minute.

Due to its compact design, this sensor can be fitted and stacked in any application. It is the perfect voltage measurement solution in switched power electronics applications that require to measure isolated voltages with high common-mode components, such as renewables and motor drives.

Main features

- $1000 V_{pp}$ isolated voltage measurements
- 1 second isolation: $3000 V_{DC}$
- 1 minute isolation: $1500 V_{AC}/50 Hz$
- Configurable input and output voltages
- High CMRR (Common-Mode Rejection Ratio)
- Compact design



CDA02-1000V general view

FUNCTIONAL DESCRIPTION

FEATURES

The CDA02-1000V isolated voltage sensor is based on the ACPL-C79B isolation amplifier from AVAGO.

Input voltage range can be adjusted by changing the attenuation of the resistor voltage divider.

The ACPL-79B isolation amplifier has a differential output and a 8,2 gain.

The output stage is used to ground and amplify the signal up to ± 10 V. A second order Sallen-Key filter with a 100 kHz of cut-off frequency is also implemented.

GENERAL SPECIFICATIONS

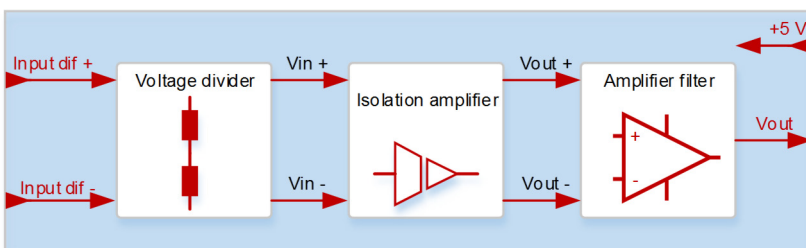
Parameter	Value
Input range	-1000 V to 1000 V
Output range	-10 V to 10 V
Bandwidth	15 kHz
Accuracy	$\pm 5\%$
Gain	0,01

Contact Us

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CDA02-1000V Functional layout