



The DNA of tech.®

High-Reliability Isolation Amplifiers for Precision Applications

# Offer Industry-Leading 150 kV/ $\mu$ s CMTI, 400 kHz Bandwidth, and Low Gain Error of $\pm 0.3\%$



## ADVANTAGE

The isolation amplifiers are designed to deliver exceptional thermal stability and precise measurement capabilities

## KEY PRODUCT FEATURES

- ✓ Isolation test voltage of 5000 V<sub>RMS</sub>
- ✓ Wide temperature range from -40 °C to +125 °C
- ✓ Low gain error ( $\pm 0.3\%$ ) and minimal gain drift (15 ppm/°C) ensure calibration-free, precise measurements over time and temperature
- ✓ High bandwidth enables faster measurements compared to traditional opto-based isolation amplifiers
- ✓ Based on proprietary capacitive isolation technology



## MARKET & APPLICATIONS



### MOBILITY

- Automotive Electrification (e-Powertrain)



### ENERGY SECTOR

- Storage



### INDUSTRIAL

- Automation
- Drives and Tools
- Infrastructure

## RESOURCES



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## ADDITIONAL BENEFITS

- Differential input voltage:
  - 50 mV (VIA0050DD): ideal for precision isolated current measurements in space-constrained applications
  - 250 mV (VIA0250DD): allows for isolated current as well as voltage measurements
  - 0.02 V to 2 V (VIA2000SD): enables precise isolated voltage measurements for applications such as bus voltage monitoring and UPS
- High CMTI allows for accurate current and voltage measurements in robust environments
- Detection of common mode over voltage ensures device performance in high common-mode applications such as motor drives
- $V_{IORM}$  of 2121 V makes the VIA series suitable for applications based on 1500 V designs such as wind power and solar power inverters
- VIA series comes with a reinforced isolation providing excellent isolation quality in harsh environments

Precision isolated current and voltage measurements for bus voltage monitoring, AC motor controls, power and solar inverters, and UPS; high voltage potential dividers and precision shunts; industrial motor drives; renewable energy systems; and critical power systems



Part Number	VIA0050DD	VIA0250DD	VIA2000SD
Input Type	Differential	Differential	Single
Gain	41	8.2	1
Gain Error	$\pm 0.05\%$	$\pm 0.05\%$	$\pm 0.3\%$
Gain Error Drift	$\pm 15 \text{ ppm}/^{\circ}\text{C}$	$\pm 15 \text{ ppm}/^{\circ}\text{C}$	$\pm 45 \text{ ppm}/^{\circ}\text{C}$
Nonlinearity Drift	$\pm 1 \text{ ppm}/^{\circ}\text{C}$	$\pm 1 \text{ ppm}/^{\circ}\text{C}$	$\pm 1 \text{ ppm}/^{\circ}\text{C}$
Input Offset Drift	$1 \text{ }\mu\text{V}/^{\circ}\text{C}$	$1 \text{ }\mu\text{V}/^{\circ}\text{C}$	$1 \text{ }\mu\text{V}/^{\circ}\text{C}$
Bandwidth	250 kHz	250 kHz	400 kHz
CMTI	100 kV/ $\mu\text{s}$	150 kV/ $\mu\text{s}$	150 kV/ $\mu\text{s}$
Linear Input Voltage	$\pm 50 \text{ mV}$	$\pm 250 \text{ mV}$	0.02 V to 2 V
$V_{ISO}$	5000 V	5000 V	5000 V
$V_{IORM}$	2121 V	2121 V	2121 V