

Bidirectional, Zero Drift, Current Sense Amplifier SP Amplifier

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SOP-8
Product Type	Amplifier ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD8418WBRZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD8418A is a high voltage, high resolution current shunt amplifier. It features an initial gain of 20 V/V, with a maximum  $\pm 0.15\%$  gain error over the entire temperature range. The buffered output voltage directly interfaces with any typical converter. The AD8418A offers excellent input common-mode rejection from  $-2$  V to  $+70$  V. The AD8418A performs bidirectional current measurements across a shunt resistor in a variety of automotive and industrial applications, including motor control, power management, and solenoid control.

The AD8418A offers breakthrough performance throughout the  $-40^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$  temperature range. It features a zero drift core, which leads to a typical offset drift of  $0.1 \mu\text{V}/^{\circ}\text{C}$  throughout the operating temperature range and the common-mode voltage range. The AD8418A is qualified for automotive applications. The device includes EMI filters and patented circuitry to enable output accuracy with pulse-width modulation (PWM) type input common-mode voltages. The typical input offset voltage is  $\pm 100 \mu\text{V}$ . The AD8418A is offered in 8-lead MSOP and SOIC packages.

## Features

Typical 0.1  $\mu\text{V}/^\circ\text{C}$  offset drift

Maximum  $\pm 200 \mu\text{V}$  voltage offset over full temperature range

2.7 V to 5.5 V power supply operating range

Electromagnetic interference (EMI) filters included

High common-mode input voltage range

Minimum DC common-mode rejection ratio (CMRR): 90 dB

Initial

Wide operating temperature range

AD8418AWB:  $-40^\circ\text{C}$  to  $+125^\circ\text{C}$

AD8418AWH:  $-40^\circ\text{C}$  to  $+150^\circ\text{C}$

Bidirectional operation

Available in 8-lead SOIC and 8-lead MSOP

Qualified for automotive applications

## Application

High-side current sensing in

Motor controls

Solenoid controls

Power management

Low-side current sensing

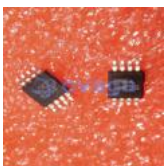
Diagnostic protection

## Related Products



### [AD8418BRMZ-RL](#)

Analog Devices, Inc  
MSOP-8



### [ADA4084-2ARMZ](#)

Analog Devices, Inc  
MSOP-8



### [AD8567ARUZ](#)

Analog Devices, Inc  
TSSOP-14



### [AD8022ARMZ](#)

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### [ADA4528-2ARMZ-R7](#)

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### [AD8062ARMZ](#)

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### [AD8628AUJZ](#)

Analog Devices, Inc  
SOP23



### [AD8041AR](#)

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