

±15 V, Fault Protected, 4-Channel High Performance Analog Multiplexer; Package: SOIC;
No of Pins: 16; Temperature Range: Industrial

Manufacturers	Analog Devices, Inc
Package/Case	SOIC-16
Product Type	Interface - Switches, Multiplexers, Demultiplexers
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADG439FBRZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADG438F and ADG439F are CMOS analog multiplexers, with the ADG438F comprising eight single channels and the ADG439F comprising four differential channels. These multiplexers provide fault protection. Using a series n-channel, p-channel, and n-channel MOSFET structure, both device and signal source protection is provided in the event of an overvoltage or power loss. The multiplexer can withstand continuous overvoltage inputs from -40 V to +55 V. During fault conditions with power supplies off, the multiplexer input (or output) appears as an open circuit and only a few nanoamperes of leakage current flows. This protects not only the multiplexer and the circuitry driven by the multiplexer, but also protects the sensors or signal sources which drive the multiplexer.

The ADG438F switches one of eight inputs to a common output as determined by the 3-bit binary address lines, A0, A1, and A2. The ADG439F switches one of four differential inputs to a common differential output as determined by the 2-bit binary address lines, A0 and A1. An EN input on each device is used to enable or disable the device. When disabled, all channels are switched off.

Product Highlights

Fault Protection. The ADG438F and ADG439F can with-stand continuous voltage inputs up to -40 V or +55 V. When a fault occurs due to the power supplies being turned off, all the channels are turned off and only a leakage current of a few nanoamperes flows.

On channel saturates while fault exists.

Low RON.

Fast Switching Times.

Break-Before-Make Switching. Switches are guaranteed break-before-make so that input signals are protected against momentary shorting.

Trench Isolation Eliminates Latch-Up. A dielectric trench separates the p-channel and n-channel MOSFETs thereby preventing latch-up.

Improved Off Isolation. Trench isolation enhances the channel-to-channel isolation of the ADG438F/ADG439F.

Features

All switches off with power supply off

Analog Output of ON Channel Clamped within Power Supplies If an Overvoltage Occurs

Latch-up proof construction

Fault and Overvoltage Protection (-40 V + 55 V)

Fast switching timeston 250 ns maxtoff 150 ns max

Break-before-make construction

TTL and CMOS Compatible inputs

16-Lead DIP/SOIC Packages

Application

Data acquisition systems

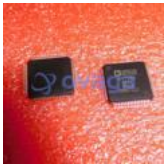
Industrial and process control systems

Avionics test equipment

Signal routing between systems

High reliability control systems

Related Products



[ADV7181CBSTZ](#)

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LQFP-64



[AD724JR](#)

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SOIC-16



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[ADV7341BSTZ](#)

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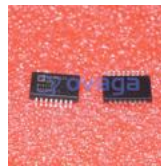
[ADV7393BCPZ](#)

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LFCSP-VQ-40



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