

## Sensor and Detector Interface 36V 23mA 16-Pin CDIP Tube



Images are for reference only

[Inquiry](#)

**Manufacturer:** [Analog Devices, Inc](#)

**Package/Case:** CDIP16

**Product Type:** Drivers

**Lifecycle:** Active

### General Description

The AD694 is a monolithic current transmitter that accepts high level signal inputs to drive a standard 4-20 mA current loop for the control of valves, actuators, and other devices commonly used in process control. The input signal is buffered by an input amplifier that can be used to scale the input signal or buffer the output from a current mode DAC. Precalibrated input spans of 0 V to 2 V and 0 V to 10 V are selected by simple pin strapping; other spans may be programmed with external resistor.

The output stage compliance extends to within 2 V of VS and its special design allows the output voltage to extend below common in dual supply operation. An alarm warns of an open 4-to-20 mA loop or noncompliance of the output stage.

Active laser trimming of the AD694's thin film resistors results in high levels of accuracy without the need for additional adjustments and calibration. An external pass transistor may be used with the AD694 to off-load power dissipation, extending the temperature range of operation.

The AD694 is the ideal building block for systems requiring noise immune 4-20 mA signal transmission to operate valves, actuators, and other control devices, as well as for the transmission of process parameters such as pressure, temperature, or flow. It is recommended as a replacement for discrete designs in a variety of applications in industrial process control, factory automation, and system monitoring.

The AD694 is available in hermetically sealed, 16-pin CERDIP and plastic SOIC, specified over the -40°C to +85°C industrial temperature range, and in a 16-pin plastic DIP, specified over the 0°C to +70°C temperature range.

## Key Features

4-20 mA, 0-20 mA Output Ranges

Precalibrated Input Ranges: 0V to 2V, 0V to 10V

Precision Voltage Reference Programmable to 2.000 V or 10.000 V

Single or Dual Supply Operation

Wide Power Supply Range: 4.5V to 36V

Wide Output Compliance

Input Buffer Amplifier

Open-Loop Alarm

Optional External Pass Transistor to Reduce Self-Heating Errors

0.002% Typ Nonlinearity

## Recommended For You

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### AD8309ARUZ

Analog Devices, Inc

TSSOP16

### AD524BDZ

Analog Devices, Inc

CDIP-16

### AD8221BR

Analog Devices, Inc

SOP-8

### AD8221ARZ

Analog Devices, Inc

SOP8

### AD627BRZ

Analog Devices, Inc

SOP8

### AD622ANZ

Analog Devices, Inc

DIP8

### ADA4930-2YCPZ-R7

Analog Devices, Inc

LFCS24

### AD8034ARZ

Analog Devices, Inc

SOP8

### AD8561ARZ

Analog Devices, Inc

SOP8

### AD633JRZ

Analog Devices, Inc

SOP8

### AD632AH

Analog Devices, Inc

CAN10

### AD8422BRZ

Analog Devices, Inc

SOP8

### ADCMP600BKSZ-R2

Analog Devices, Inc

SC70-5

### AD620BN

Analog Devices, Inc

DIP8

### AD620BR

Analog Devices, Inc

SOP