

LVDT Signal Conditioner 20-Pin SBCDIP Tube

Manufacturer:	Analog Devices, Inc
Package/Case:	CDIP
Product Type:	Drivers
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The AD598 is a complete, monolithic Linear Variable Differential Transformer (LVDT) signal conditioning subsystem. It is used in conjunction with LVDTs to convert transducer mechanical position to a unipolar or bipolar dc voltage with a high degree of accuracy and repeatability. All circuit functions are included on the chip. With the addition of a few external passive components to set frequency and gain, the AD598 converts the raw LVDT secondary output to a scaled dc signal. The device can also be used with RVDT transducers.

The AD598 contains a low distortion sine wave oscillator to drive the LVDT primary. The LVDT secondary output consists of two sine waves that drive the AD598 directly. The AD598 operates upon the two signals, dividing their difference by their sum, producing a scaled unipolar or bipolar dc output.

The AD598 uses a unique ratiometric architecture (patent pending) to eliminate several of the disadvantages associated with traditional approaches to LVDT interfacing. The benefits of this new circuit are: no adjustments are necessary, transformer null voltage and primary to secondary phase shift does not affect system accuracy, temperature stability is improved, and transducer interchangeability is improved.

Key Features

Single Chip Solution, Contains Internal Oscillator and Voltage Reference

No Adjustments Required

Insensitive to Transducer Null Voltage

Insensitive to Primary to Secondary Phase Shifts

DC Output Proportional to Position

20 Hz to 20 kHz Frequency Range

Single or Dual Supply Operation

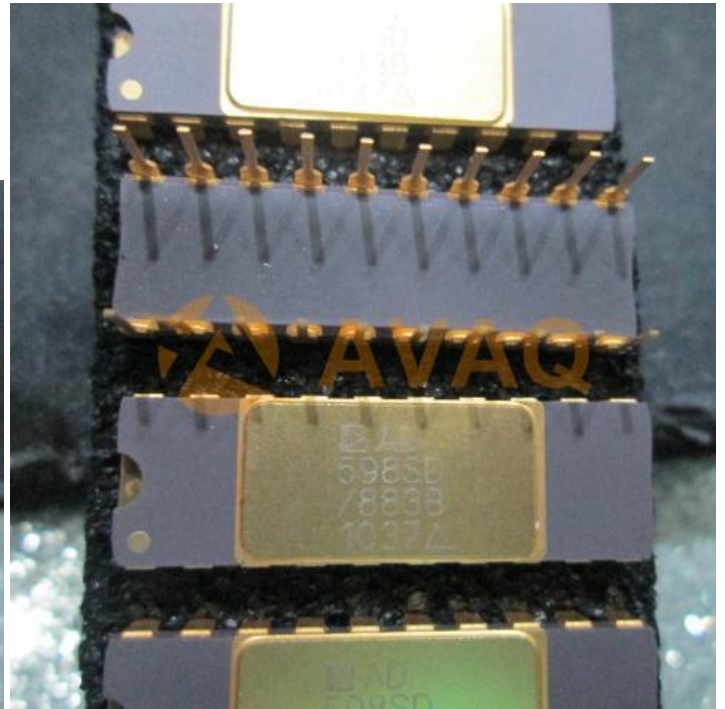
Unipolar or Bipolar Output

Will Operate a Remote LVDT at Up to 300 Feet

Position Output Can Drive Up to 1000 Feet of Cable

Will Also Interface to an RVDT

Outstanding Performance
Linearity: 0.05% of FS max
Output Voltage: ± 11 V min
Gain Drift: 50 ppm/ $^{\circ}$ C of FS max
Offset Drift: 50 ppm/ $^{\circ}$ C of FS max



Recommended For You

ADM3490EARZ

Analog Devices, Inc

SOP-8

ADuM3160BRWZ-RL

Analog Devices, Inc

SOP16

ADM3232EARUZ

Analog Devices, Inc

TSSOP-16

ADuM5211ARSZ

Analog Devices, Inc

SSOP20

ADuM1201BRZ-RL7

Analog Devices, Inc

SOP8

ADV7623BSTZ

Analog Devices, Inc

LQFP144

ADuM1410BRWZ

Analog Devices, Inc

SOP16

AD698APZ

Analog Devices, Inc

PLCC28

ADM3251EARWZ

Analog Devices, Inc

SOP20

ADM485ANZ

Analog Devices, Inc

DIP

ADuM6400ARWZ

Analog Devices, Inc

SOP16

ADuM1281BRZ

Analog Devices, Inc

SOP8

ADUM142E0BRZ

Analog Devices, Inc

SOP-16

ADuM1412BRWZ

Analog Devices, Inc

SOP16

ADV7622BSTZ

Analog Devices, Inc

TQFP144