

## Precision 8-Channel, Differential 4-Channel, 36V Analog Multiplexers

The PS508 and PS509 are modern, complementary metal-oxide semiconductor (CMOS), 36V high voltage analog multiplexers. The PS508 offers an 8:1 single-ended channel, whereas the PS509 offers a differential 4:1 or a dual 4:1 single-ended channel.

The PS508 and PS509 work equally well with either dual supplies ( $\pm 5V$  to  $\pm 18V$ ) or a single supply (10 V to 36 V). They also perform well with symmetric supplies (such as  $VDD = 12V$ ,  $VSS = -12V$ ), and un-symmetric supplies (such as  $VDD = 12V$ ,  $VSS = -5V$ ).

All digital control inputs have TTL-logic compatible thresholds, ensuring both TTL and CMOS logic compatibility when operating in the valid supply voltage range.

The target applications for the PS508 and PS509 are data acquisition cards, multi-channel data acquisition systems and process control and instrumentation.



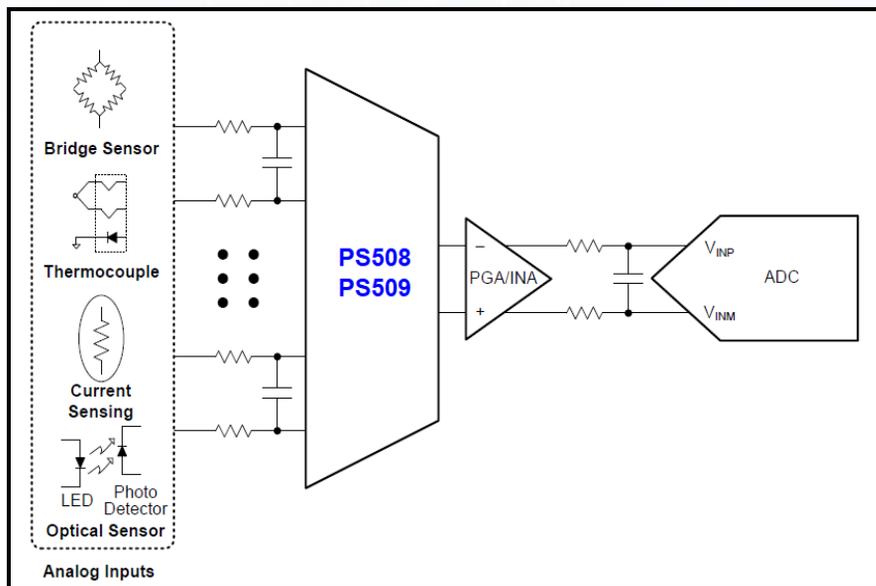
### The Diodes Advantage

- Lower On Resistance, Leakage Current, Charge Injection and Total Harmonic Distortion**  
 Prevents signal loss and degradation, reduces the error on output signals, and improves the signal quality for backend ADC analysis
- Lower Turn On/Off Time**  
 Reduces the propagation delay from the control input to the operation of the analog switch and improves the channel switch time
- First Vendor To Offer a Reliable and Smaller QSOP Package in the Market.**  
 Helps to reduce PCB area
- Operates from Either a Single Supply Voltage 10V to 36V or Dual Supplies  $\pm 5V$  to  $\pm 18V$**   
 Provides wide range high voltage signal input support for various signal inputs

### Applications

- Data Acquisition Cards
- Multichannel Data Acquisition Systems
- Factory Automation and Process Control
- Digital Multimeters
- Battery Monitoring Systems

## Typical Application Circuit



## Ordering Information

Part Numbers	Package Code	Package	Reel Size	# per Reel
PS508LEX	L	TSSOP-16	13"	2,500
PS508WEX	W	SOIC-16	13"	2,500
PS508QEX	Q	QSOP-16	13"	2,500
PS509LEX	L	TSSOP-16	13"	2,500
PS509WEX	W	SOIC-16	13"	2,500
PS509QEX	Q	QSOP-16	13"	2,500

## Cross Reference

Competitor	Part#	Package	Diodes Ordering Part#
TI	MUX50x	PW	PS50XLE
		ID	PS50XWE
ADI	ADG50xA	AKR	PS50XWE
Vishay	DG50xB	EY-T1-E3	PS50XWE
		EQ-T1-E3	PS50XLE