

KP23x Integrated Pressure Sensor Barometric Air Pressure

Product: The KP23x automotive pressure sensor family is a miniaturized absolute pressure sensor IC based on the capacitive principle. It is surface-micro machined with a monolithic integrated fully digital signal conditioning circuit, implemented in state-of-the-art 0.5 micron BiCMOS technology with analog output signal, broken wire detection, optional clamping and other useful features.

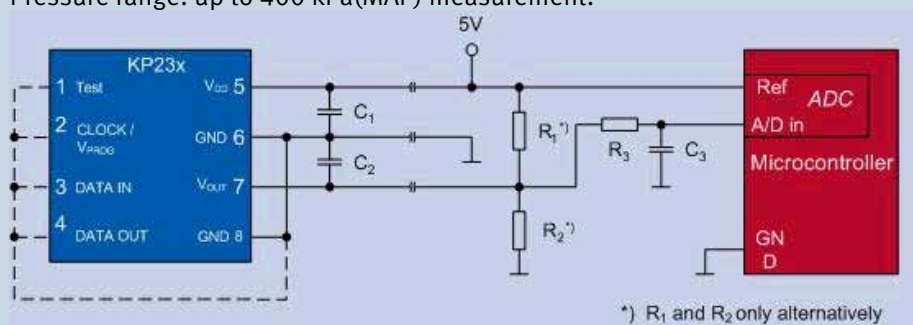
Application: The barometric air pressure (BAP) is an important parameter to compute the air-fuel ratio provided to the engine and for controlling spark advance to optimize engine efficiency for diesel and gasoline engines. Other automotive applications are Turbo protection or seat comfort using a virtual differential pressure measurement.

Package: PG-DSOF-8-16 with integrated lid.

Target Market: High accuracy and robust design makes this sensor family a perfect fit for automotive applications.

Availability: A Sample Kit is available (SP000753082).

Similar Products: KP21x / KP22x product family for automotive Manifold Air Pressure range: up to 400 kPa(MAP) measurement.



Typical Applicatons

- Engine Management
- Altimeters
- Industrial Controls
- Weather reporting devices
- Medical



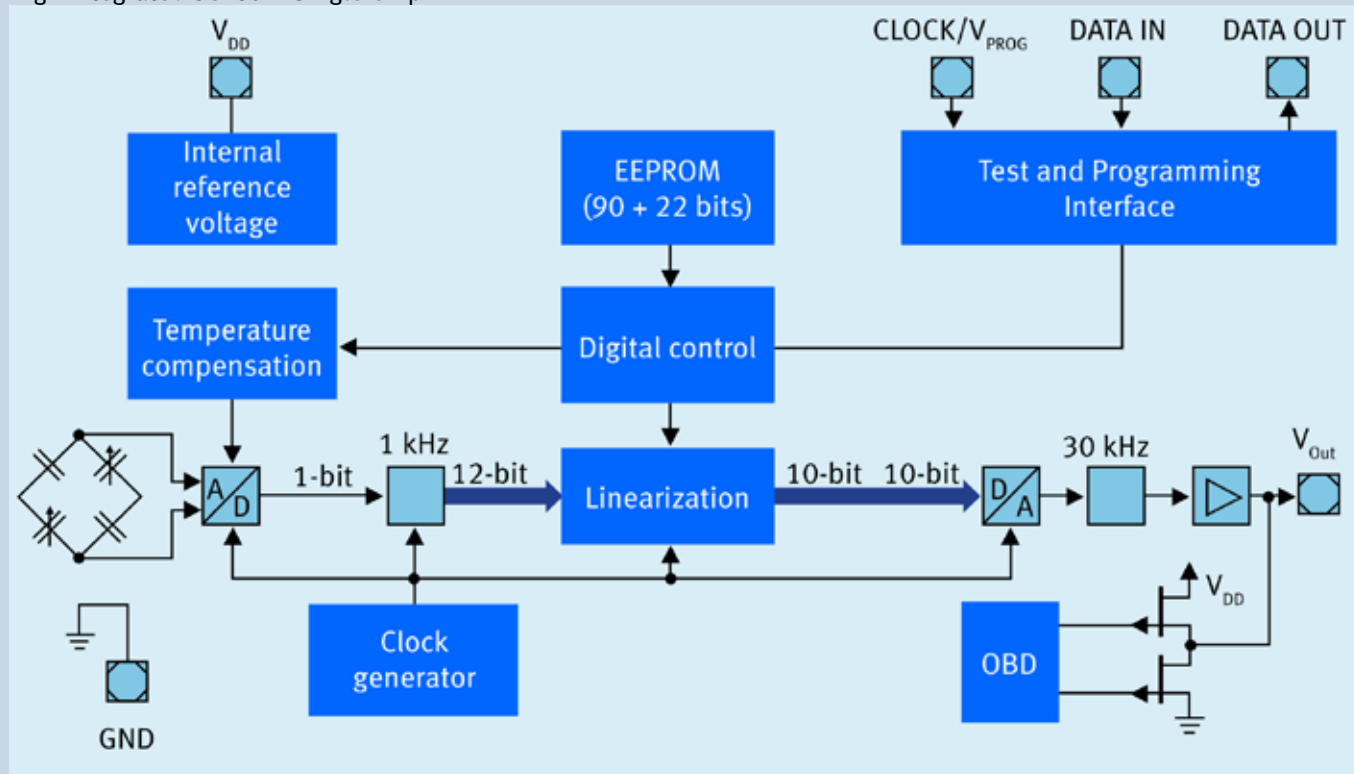
Feature

- Absolute air pressure measurement based on capacitive principle
- Excellent accuracy of 1.0 kPa over a large temperature range
- Ratiometric analog output proportional to the applied pressure
- Output clamping (optional)
- Pressure range from 40 to 165 kPa
- Temperature range from -40 to 125°C
- Open bond detection for supply and GND (OBD)
- Inverse polarity protection
- „Green SMD package (PG_DSOF-8-16)

KP23x Integrated Pressure Sensor

Barometric Air Pressure

High Integrated Sensor - Single Chip



INFINEON TECHNOLOGY offers an extensive product portfolio for diesel engine management systems from micromachined sensors to smart power ICs and microcontrollers. The KP23x an an integrated pressure sensor for barometric pressure measurement, is a benchmark in terms of reliability, performance and integrated level.

Parameter	Derivatives				Unit
	KP234	KP235	KP236	KP236 N6165	
Basic Accuracy	1,5% F:S	1,2	1,0	1,0	kPa
Transfer Function Pressure Min.	15	40	40	60	kPa
Transfer Function Pressure Mix.	115	115	115	165	kPa
Transfer Function Voltage Min.	0,2	0,5	0,5	0,2	V
Transfer Function Voltage Mix.	4,7	4,5	4,5	4,8	V
Order Code	SP000700772	SP000700776	SP000700780	SP000700784	

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