

## Product Brief

# KP275

## dTurboTMAP with SENT output and temperature sensor interface

With an accuracy of 0.77%, the KP275 is the most accurate digital Turbo MAP sensor which enables customers to achieve the targets of new CO<sub>2</sub> legislative requirements. Protected against aggressive media like Iodine, the KP275 guarantees high quality and long life time, even in harsh conditions. Using a SENT interface, the KP275 is easy to use and fast in communication. With an integrated NTC functionality the pressure sensor acts as a hub for an external NTC temperature sensor. So it's possible to have pressure and temperature signal on only one digital interface. In this context products of the developed MAP sensor family KP27x are the optimum solution for turbo diesel and gasoline engines management systems.

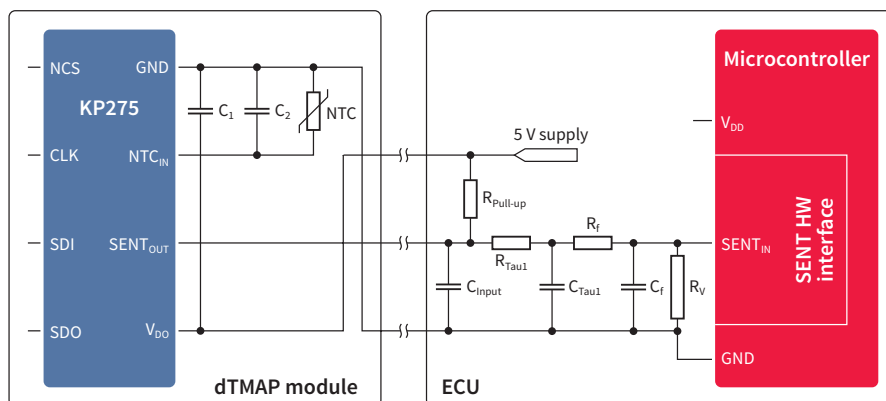
### Key features

- > **Increased media robustness** for current automotive requirements
- > **High accuracy** pressure sensing ( $\pm 0.77\%$  FSS)
- > Integrated signal processing for external temperature sensor
- > **SENT** protocol interface
- > Real **12-bit** pressure resolution
- > Real **12-bit** temperature resolution
- > **Self diagnostic** features
- > "Green" 8 pin SMD housing
- > Automotive qualified

### Typical applications

- > Automotive applications, industrial control
- > Consumer applications, medical applications

### Application circuit for the pressure sensor system

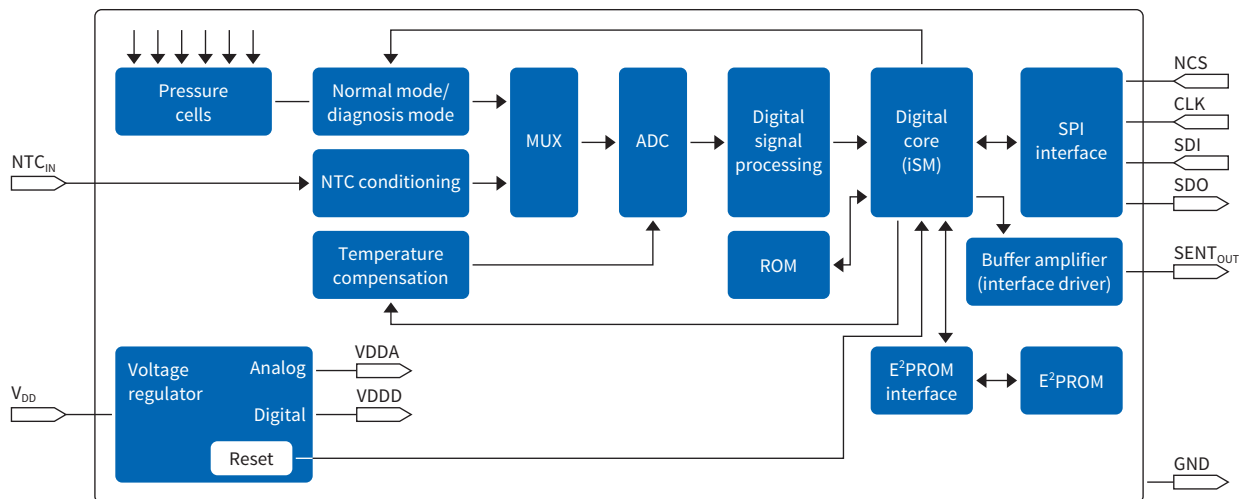


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### Highly integrated sensors – single chip

Infineon offers an extensive broad product portfolio for gasoline and diesel engine management systems from micro-machined sensors to smart power ICs and microcontrollers. The KP27x pressure sensor as an integrated pressure sensor for manifold pressure measurement is a benchmark in terms of reliability, performance and integration level.



### Product summary

Parameter	Range			Unit
	Min.	Typ.	Max.	
Accuracy			0.77	% FS
Pressure range	10		400	kPa
Supply voltage	4.5	5	5.5	V
Output current			10	mA
Output	1		4087	LSB
Operating temperature	-40		150, 170 peak	°C
<b>Programmable transfer functions</b>				
Transfer function pressure	10		400	kPa
Transfer function pressure output	193		3896	LSB
Transfer function temperature	-50		170	°C
Transfer function temperature output	185		1945	LSB
Clamping level	0		4088	LSB

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