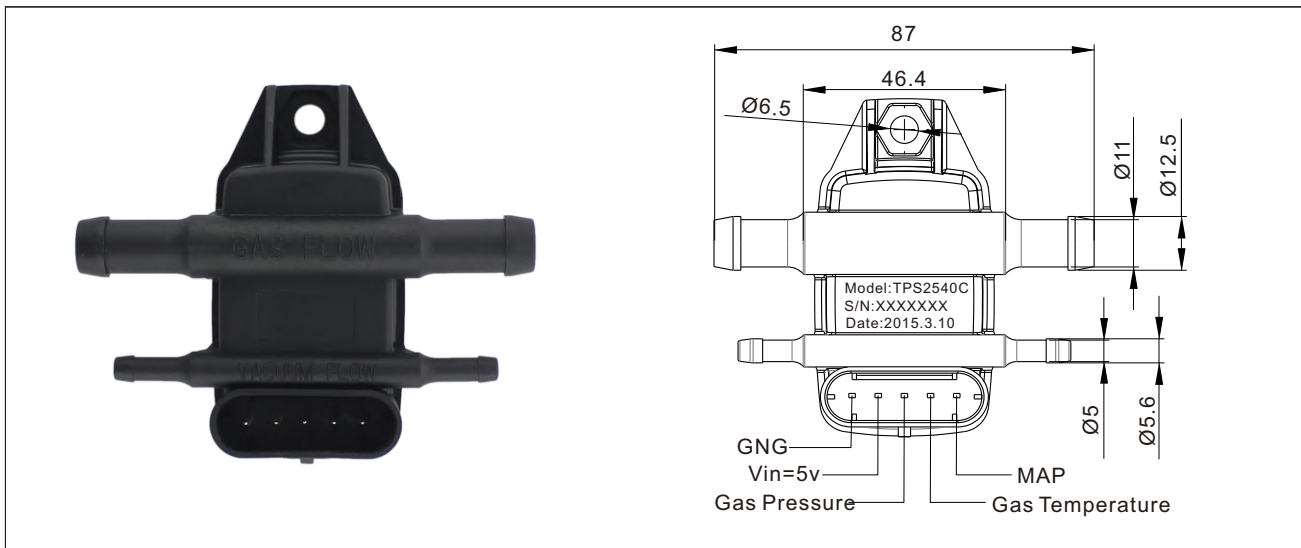


## TPS2540C MEMS Type - Automotive Class Temperature + Pressure + Map Sensor

- ☆ TPS2540C series is the sensor combined with gas temperature, gas pressure and MAP.
- ☆ Pressure and MAP signal is made by MEMS sensor circuitry and thin film resistor networks to provide a high output signal and temperature compensated.
- ☆ Temperature signal is made by a NTC thermistance.

\*All dimensions in MM.

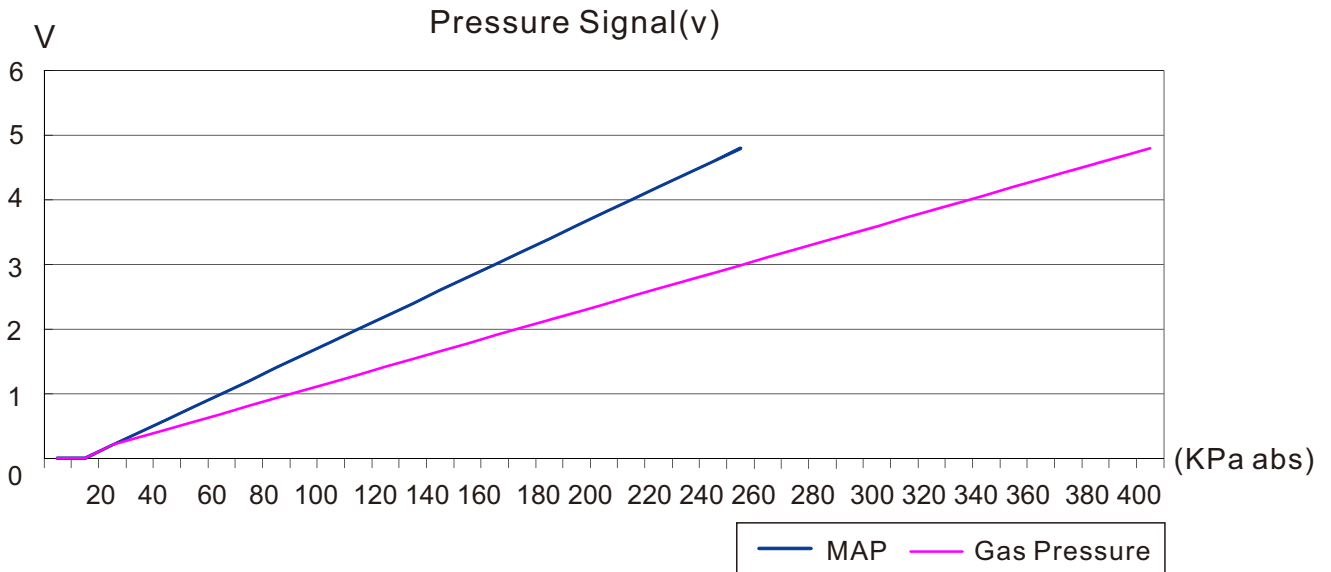


### Specification

Gas Pressure	Leakage testing pressure	520kPa
	Testing pressure	0-400kPa
	Working pressure	0-400kPa (Absolute Pressure)
	Burst pressure	1600kPa
	Pressure response time	5ms
MAP	Leakage testing pressure	330kPa
	Testing pressure	0-250kPa
	Working pressure	0-250kPa (Absolute Pressure)
	Burst pressure	1000kPa
	Pressure response time	5ms
Temperature	Temperature signal type	NTC resistance 10KΩ

## ► Output Types

Signal Code	Input Volt	Output Formular	Output Description
MAP	5v	$V_{out}=V_{in}(5v)*0.0040*P(kPa)-0.040$	20kPa=0.2v, 100kPa=1.8v, 250kPa=4.8v
Gas Pressure	5v	$V_{out}=V_{in}(5v)*(0.002421*P(kPa)-0.00842)$	20kPa=0.2v, 200kPa=2.38v, 400kPa=4.8v



Temperature / Resistance (KΩ)							
T(°C)	Output		T(°C)	Output		T(°C)	Output
-40	401.860		15	15.837		70	1.760
-35	281.577		20	12.535		75	1.492
-30	200.204		25	10.000		80	1.270
-25	144.317		30	8.037		85	1.087
-20	105.385		35	6.506		90	0.934
-15	77.898		40	5.301		95	0.805
-10	58.246		45	4.348		100	0.698
-5	44.026		50	3.588		105	0.606
0	33.621		55	2.978		110	0.529
5	25.925		60	2.486		115	0.463
10	20.175		65	2.086		120	0.407

Default=10KΩ B25/50:3950

### Customization:

- 1) different temperature signal available;
- 2) temperature response time of 2s available by MOQ 3000pcs.