Model651:Manifold Absolute Pressure Sensor (MAP)

FEATURES

● 0.2 bar to 1.0 bar   0.2 bar to 2.0 bar   0.2 bar to 3.0 bar

● 1.5％FS Static Accuracy

● MEMS technology

● Programmable ASIC to meet customer specifications

● Low part count enhances reliability

● Amplified and temperature com

● EMI protection

●Combination of pressure and temperature sensor(MAP/MAT)

—MAP sensor precision with reliable thermistor output

—Two-in-one sensor yields cost reduction and space savings w/one fewer component, wire and connector

DESCRIPTIONS

651 incorporates MEMS technology and custom Application Specific Integrated Circuit (ASIC)technology in the design. It is specifically designed for tough automotive application.

The Temperature Manifold Air Pressure sensors in Model 651 provide tow separate outputs critical to air/fuel ratio optimization:

One voltage output proportional to engine intake manifold pressure

One resistance output proportional to manifold air temperature

Model 651 is designed to perform in the underhood harsh environment such as temperature extremes,vibration, thermal and mechanical shock, and corrosive chemical. Please contact us for special design to meet your requirements.

SENSOR SPECIFICATIONS

Electrical:

Supply Voltage	5.0±0.5 VDC
Supply Current	10 mA max
Maximum Output Current	Sink 1 mA
	Source 0.1 mA
Output Impedance	10 ohms max
Output Type	ratiometric
Output Voltage	0.25 to 4.85 VDC at 5VDC excitation

Sensor Operating Characteristics:

Range	0.2 bar to 1.0 bar
	0.2 bar to 2.0 bar
	0.2 ba r to 3.0 bar
Proof Pressure	200%FS
Static Accuracy (%FS)	1.5 typ.
Temperature Measurement Accuracy	±1℃ at 25℃

Environmental Effects:

Compensated Temperature Range	-40℃ to +135℃
Storage Temperature Range	-50℃ to +150℃

Mechanical:

Media Compatibility Media Compatible with Silicon

Temperature sensor specification :

R25℃	2000 Ω
Temperature Measurement Accuracy	±1℃ at 25℃

APPLICATION:

MARELLI	T-PRT04
SRAT	T-PRT04/B
SKODA	027 998 0411
VOLKSWAGEN	036 906 051,036 906 051
	027 998 0411,036 906 0510

Notes:

1. Static accuracy is the RSS of non-linearity, hysteresis, and non-repeatability
2. Please contact us for special design to meet your requirements.

Transfer Curve(Vin-5.0V)

Output voltage(V) vs Pressure(KPa)

4.85V

0.51V

0 20 32 50 67 85 102 120

Temperature Error Muliplier

Error Multiplier vs Temperature(°C)

3.0 2.5 2.0 1.5 1.0 0.5 0

-40 0 85 105

Alllowable pressure Error

Allowable Error(kpa) vs Pressure(KPa)

2.4 1.5 1.5 1.7

20 40 94 102 120

2.4 1.5 1.5 1.7