

Intake Manifold Air Pressure & Temperature Sensor (TMAP)

Model: TMAP Series

Product Overview

Combined piezoresistive MEMS absolute pressure sensor and NTC thermistor for automotive engine intake manifold airflow and turbo boost management.

Key Features

- Dual-function: absolute manifold pressure (MAP) and intake air temperature (IAT)
- High accuracy pressure sensing: $\pm 1.0\%$ FS across full operating range
- Fast thermal time constant with integrated fast-response NTC bead
- Ratiometric 0.5-4.5V pressure output and NTC resistance curve
- Integrated sealing O-ring and bayonet clip-in mounting

Typical Applications

- Automotive & Commercial Vehicles
- Industrial Machinery & Automation
- Electric Vehicles (EV & FCEV)
- Safety Interlocks & Control Systems

Technical Specifications

Parameter	Specification / Technical Value
Pressure Range	10 kPa to 250 kPa / 50 kPa to 400 kPa absolute
Temperature Range	-40°C to +130°C
Supply Voltage	5.0V $\pm$ 0.25V DC
Pressure Output	0.5V to 4.5V DC
Temperature NTC	R25 = 2.0 kOhm / 5.0 kOhm
Protection Rating	IP65