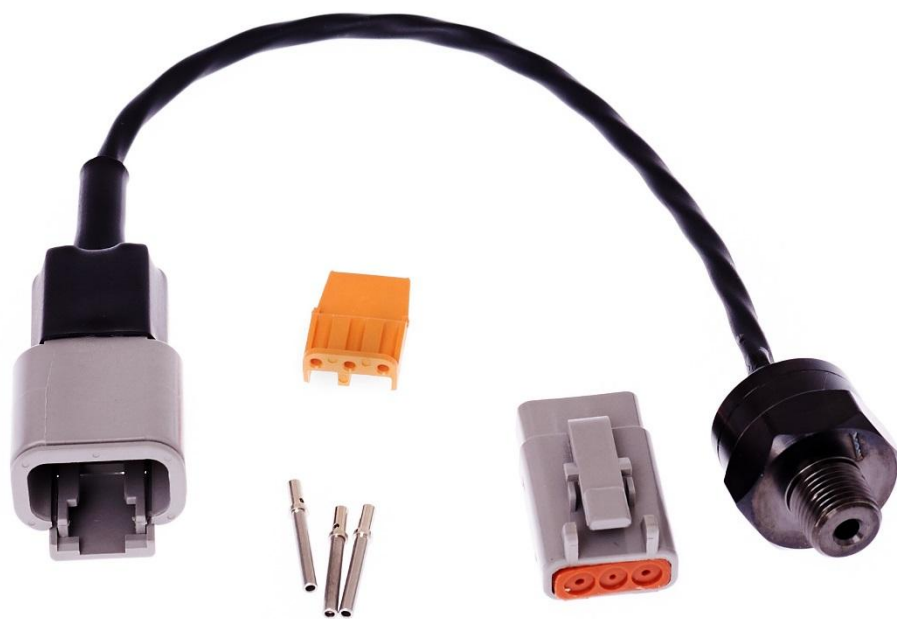


# Emtron 4.0 Bar MAP Sensor

PRODUCT  
DATASHEET

Rev 1.0



4.0 BAR

**EMtron**  
Australia

The Emtron 4.0 Bar MAP Sensor uses a state-of-the-art piezoresistive transducer from NXP Semiconductors. It is highly accurate, providing a high level analog output signal that is proportional to the applied pressure.

## Features

- Genuine NXP Sensor
- Pressure Range: 20kPa to 400kPa
- Max Supply Voltage: 4.70 to 5.30 Volts DC
- Current Supply 6.0mA
- Protective Silicone Gel prevents sensor damage from airborne contaminants like oil, petrol and methanol.
- Fully calibrated and temperature compensated from -40 DegC to +125 DegC
- Response time 1ms
- Compact Design
- Stainless Steel 303 body for durability then coated in black nickel for superior abrasion resistance
- Fully potted for a waterproof seal and resistance to shock and vibration
- 1/8 NPT Thread
- Deutsch 3 Way Connector(mating end also supplied)

## Calibration

**Transfer Function:**  $V_{out} = \text{Sensor-Supply} \times (0.002421 \times P - 0.00842)$

Sensor-Supply allows for ratiometric correction. Set to 5.000V when not required.

$$P = 400\text{kPa: } V_{out} = 5.00 \times (0.002421 \times 400.0 - 0.00842) = 4.8\text{V}$$

$$P = 20.0\text{kPa: } V_{out} = 5.00 \times (0.002421 \times 20.0 - 0.00842) = 0.200\text{V}$$

Voltage (V)	Pressure (kPa)
0.200	20.0
4.8	400.0

This calibration option is available from Emtune. Select “Emtron 4.0 Bar” option from the Predefined Calibration list on any Analog Channel Input.

## Pinout

### Deutsch 3 Way Connector Pinout

Pin	Function
1	0V
2	Signal
3	5V

Connect the MAP Sensor 0V (Pin 1) to the ECU Sensor Ground or Analog Sensor 0V Reference pin. **DO NOT** connect the MAP Sensor 0V directly to the ECU ground or engine block.

## Ordering Information

Product	Part Number
Emtron MAP Sensor 4.0 Bar	1301-40A

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(See the [www](http://www.emtron.world) for contact information)

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