

NO_x Sensor

P/N 56.03.005

Dimensions

- Length of probe 26.4 mm (1.04")
- Length of sensing element 85.4 mm (3.37")
- Evaluation unit (length x width x height) 107.6 mm x 81 mm x 29.1 mm (4.24" x 3.19" x 1.15")
- Length of connection cable 985 mm (38.78")

Measuring Ranges

- Nitrogen oxide (NO_x) 0 ppm to 3,012 ppm
- Measuring accuracy nitric oxide (NO)

Measurement	Measurement accuracy
0 ppm	± 5 ppm abs
10 ppm	± 7 ppm abs
100 ppm	± 7 ppm abs (± 7 % rel)
500 ppm	± 40 ppm abs (± 8 % rel)
1,500 ppm	± 150 ppm abs (± 10 % rel)
2,750 ppm	± 468 ppm abs (± 17 % rel)

- Cross sensitivity NO_x measurement Ammonia (NH₃) typ. 115 %
- Sensitivity NO_x measurement Nitrogen dioxide (NO₂) typ. 82 %
- Oxygen (O₂) 0 % to 20.95 %
- Measuring accuracy oxygen (O₂)

Measurement	Measurement accuracy	Gas composition
0 %	± 0.2 % abs	N ₂ with 1 % H ₂ O
5 %	± 0.25 % abs	5 % O ₂ in N ₂ ; 0 % H ₂ O
20.95 %	± 5 % rel	20.95 % O ₂ in N ₂ ; 0 % H ₂ O

- Exhaust gas measurement temperature range -40 °C to +850 °C (-40 °F to +1,562 °F)
- Exhaust gas velocity at supply voltage 10 m/s to 140 m/s at 13.8 V to 32 V
10 m/s to 60 m/s at 10.7 V to < 13.8 V
- NO₂ correction factor (K_{NO2}) 0.82 (set ex works)

Mechanical Data

- IP protection rating as per ISO 20653:2013 IP 6K9K with mating plug of same protection rating connected to evaluation unit and sensing element mounted in suitable welding boss from MOTORTECH
- Service life 15,000 operating hours

Climatic Environmental Conditions

- Operating temperature evaluation unit -40 °C bis +125 °C (-40 °F bis +257 °F)
- Operating pressure range 500 mbar abs to 2,000 mbar abs



Electrical Data

- Power supply 24 V DC (10.7 V DC to 32 V DC)
- Maximum power consumption 60 W
- Required current in measuring operation Max. 1.4 A_{rms}, 5.7 A_{peak}
- Connector evaluation unit 5-pole, connector, Hirschmann, MLK, variant 1, code A

Communication

- Interface CAN 2.0B
- Network protocol CAN SAE J1939
- Data rate CAN bus 250 kbit/s, 500 kbit/s

Overview Drawings
