

EasyNO_x – NO_x Monitoring

P/N 63.05.001-01/-02, P/N 63.05.002-01/-02

EasyNO_x Control Unit

Dimensions

- Length x width x height 305.6 mm x 230 mm x 86 mm (12.04" x 9.06" x 3.39")

Mechanical Data

- Weight 3.5 kg (7.8 lbs)
- IP protection rating IP 66

Climatic Environmental Conditions

- Permissible temperature range during operation 0 °C to +50 °C (+32 °F to +122 °F)
- Permissible temperature range for storage –20 °C to +70 °C (–4 °F to +158 °F)
- Permissible relative humidity during operation 5 % to 90 % without condensation with closed housing

Electrical Data

- Power consumption in measuring operation Max. 100 W
- Power supply 16 V DC to 32 V DC
- Nominal voltage 24 V DC
- Required current in measuring operation Max. 4.7 A

Display

- Screen diagonal 178 mm (7")
- Resolution 800 x 480 pixels

Communication

- Interfaces USB, 2x CAN (1x CANopen®, 1x J1939)



CAN Bus/NO_x Sensor Module P/N 63.05.015

Dimensions

- Length x width mounting plate 206.5 mm x 150 mm (8.13" x 5.91")
- Height mounting plate with CAN bus module 82 mm (3.23")

Mechanical Data

- Weight 1.53 kg (3.4 lbs)
- IP protection rating IP 66 with mating plug connected to evaluation unit of NO_x sensor and sensing element mounted in suitable welding boss from MOTORTECH

Climatic Environmental Conditions

- Permissible temperature range during operation –40 °C to +85 °C (–40 °F to +185 °F)
- Permissible temperature range for storage –40 °C to +75 °C (–40 °F to +167 °F)
- Permissible relative humidity during operation 5 % to 90 % without condensation with closed housing

CAN Bus Module

Thermocouple Inputs

- Quantity 2
- Supported thermocouple type Type K, Class 1 (IEC 584)
With cold junction compensation
- Measuring range -200 °C to $+1,200\text{ °C}$
(-328 °F to $+2,192\text{ °F}$)
- Measurement resolution 0.1 K
- Measuring accuracy $\pm 0.1\text{ K}$

Analog Inputs

- Quantity 2 (0–22 mA)
- Current range for measured values 4 mA to 20 mA
- Measurement resolution 0.001 mA
- Measuring accuracy 0.01 % FS

NO_x Sensor P/N 56.03.003

Dimensions

- Length of probe 24 mm (0.95")
- Length of sensing element 83.3 mm (3.28")
- Length of connection cable 980 mm (38.58")

Climatic Environmental Conditions

- Exhaust gas temperature range -40 °C to $+850\text{ °C}$
(-40 °F to $+1,562\text{ °F}$)
- Operating pressure range 600 mbar abs to 1,500 mbar abs

Measuring Ranges

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

Measurement	Accuracy new at O ₂ ≥ 1 vol%	Accuracy aged at O ₂ ≥ 1 vol%
0 ppm	$\pm 8\text{ ppm abs}$	$\pm 10\text{ ppm abs}$
90 ppm	$\pm 10\text{ ppm abs}$	$\pm 12\text{ ppm abs}$
1,500 ppm	$\pm 8\text{ % rel}$	$\pm 10\text{ % rel}$

- Cross sensitivity NO_x measurement Ammonia (NH₃) typ. 110 %
- Sensitivity NO_x measurement Nitrogen dioxide (NO₂) typ. 85 %
- Oxygen (O₂) 0 % to 20.95 %
- Measuring accuracy oxygen (O₂)

Measurement	Composition	Accuracy new	Accuracy aged
0 %	N ₂ with 1 % H ₂ O	$\pm 0.2\text{ % abs}$	$\pm 0.3\text{ % abs}$
8.29 %	N ₂ with 0 % H ₂ O	$\pm 6\text{ % rel}$	$\pm 8\text{ % rel}$
12 %	N ₂ with 0 % H ₂ O	$\pm 6\text{ % rel}$	$\pm 8\text{ % rel}$
20.95 %	N ₂ with 0 % H ₂ O	$\pm 6\text{ % rel}$	$\pm 8\text{ % rel}$

- Exhaust gas velocity 10 m/s to 100 m/s
- NO₂ correction factor 0.85 (set ex works)

**Mechanical Data**

- IP protection rating IP 6K9K with mating plug connected to evaluation unit and sensing element mounted in suitable welding boss from MOTORTECH
- Service life 8,000 operating hours with ambient temperature max. +90 °C (+194 °F) at evaluation unit

I/O Communication Module BPlus (EXTENDED Package)**Dimensions**

- Length x width x height 100 mm x 97 mm x 48 mm
(3.94" x 3.82" x 1.89")

Mechanical Data

- Weight without harnesses 320 g (0.71 lbs)
- IP protection rating IP 20

Climatic Environmental Conditions

- Permissible temperature range -40 °C to +85 °C (-40 °F to +185 °F)
- Permissible relative humidity Max. 85 % without condensation

Electrical Data

- Power consumption 0.72 W (outputs unloaded)
- Power supply 8 V DC to 32 V DC
- Nominal voltage 24 V DC
- Required current 30 mA at 24 V (outputs unloaded)

Inputs and Outputs

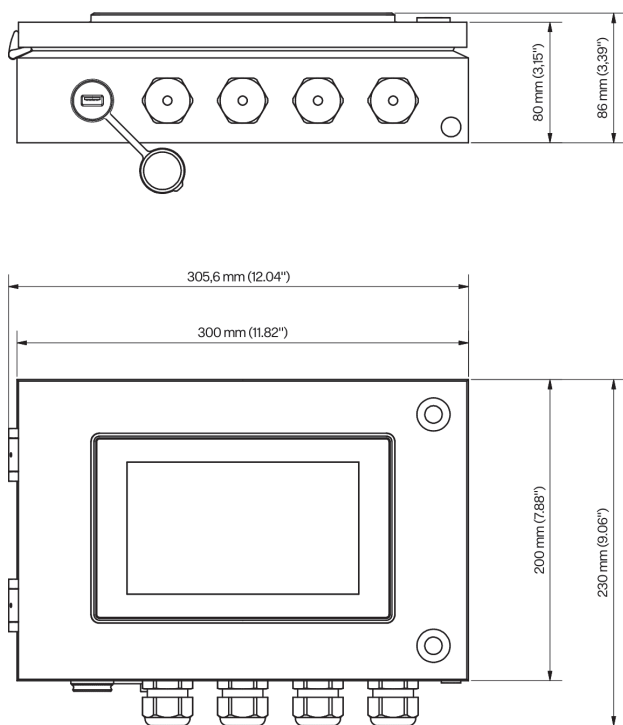
- Binary inputs 1
- Binary outputs 3
- Analog inputs 1 (4-20 mA)
- Analog outputs 1 (4-20 mA)

Communication

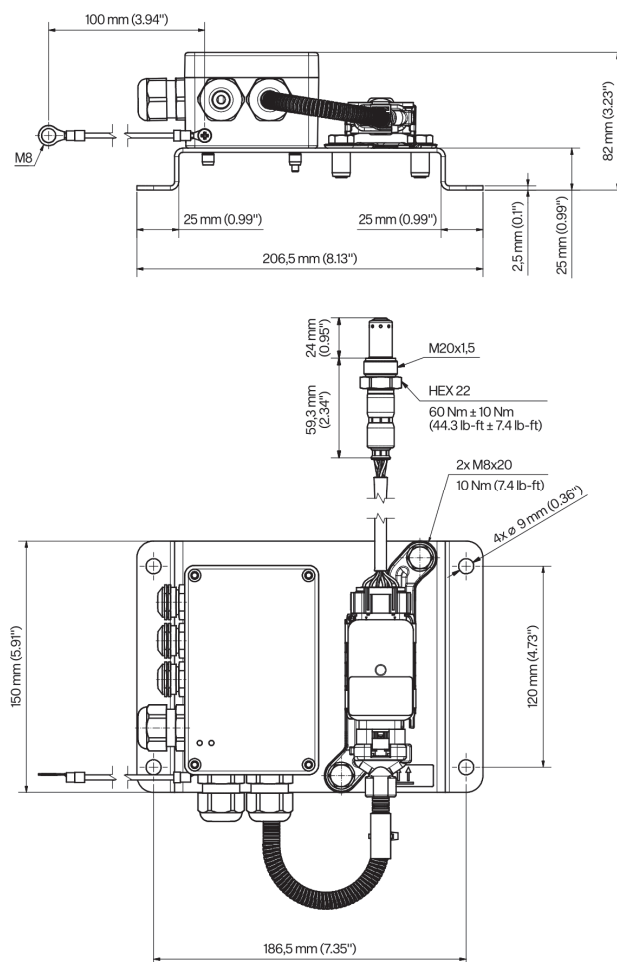
- Interface CAN (CANopen®)

Overview Drawings

EasyNO_x Control Unit



CAN Bus/NO_x Sensor Module P/N 63.05.015



I/O Communication Module BPlus (EXTENDED Package)

