



NO₂/CA-2

Nitrogen Dioxide Gas Sensor in Compact Housing

PROVISIONAL

Measurement

Operation Principle	3-Electrode Electrochemical
Nominal Range	0 - 2 ppm
Maximum Overload	10 ppm
Inboard Filter	To remove O ₃
Maximum Short Term Filter Overload	1 ppm O ₃
Output Signal	- 350 ± 150 nA/ppm
Resolution (Electronics dependent)	< 0.02 ppm
T90 Response Time	< 30 s
Typical Baseline Range (pure air, 20°C)	-0.05 ppm to 0.05 ppm
Maximum Zero Shift (+20°C to +40°C)	N.D.
Repeatability	< 2 % of signal
Output Linearity	Linear
Gain	-

Electrical

Rec. Load Resistor	10 - 33 Ohm
Bias (V _{Sens} -V _{Ref})	not recommended
Conformity to RoHS directive	RoHS Compliance

Environmental

Relative Humidity Range	15 % to 90 % R.H. non-condensing
Temperature Range	-40 °C to 50 °C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	N.D.
Humidity Effect	None

Lifetime

Expected Operation Life	2 years in air
Expected Long Term Output Drift in air	< 2 % signal loss per month
Filter Life	> 2 years at daily maximum eight hour average of 110 µg/m ³ O ₃
Storage Life	6 months in container
Rec. Storage Temperature	5°C - 20°C
Warranty Period	12 months from date of dispatch

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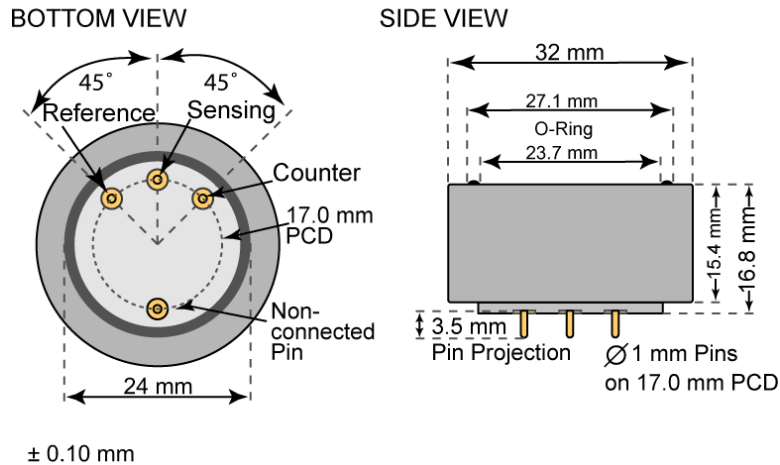
Switzerland

Performance data: 20 – 25°C, 50% RH, 1013 mbar

For further information about usage of Membrapor sensors, see application note [MEM1](#). The data contained in this document is for guidance only. Membrapor AG accepts no liability for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.



Compact-Size Outline Dimensions



Mechanical

Weight	13 g
Position Sensitivity	None

Applications

Continuous Air Quality Monitoring
Safety and Environmental Control

Cross Sensitivity Data

The table below does not claim to be complete. Interfering gases should not be used for calibration. Please contact Membrapor AG for further support regarding cross sensitivities.

Interfering Gas	Concentration [ppm]	Reading [ppm]
C ₂ H ₄	100	0
CH ₂ O	7	0
Cl ₂	20	15
CO	100	0
H ₂	100	0
H ₂ S	20	< -0.1
HCl	20	0
NH ₃	80	0
NO	1	0 ¹
O ₃	0.2	0
SO ₂	5	0

1 **Important Note:** NO readily forms NO₂ in the presence of O₂

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