MEMBRAPOR

SPECIFICATION SHEET FOR NO $_2$ SENSOR TYPE NO $_2$ /S-20-S

PERFORMANCE CHARACTERISTICS

Nominal Range0 - 20 ppmMaximum Overload200 ppmExpected Operation Life2 years in airOutput Signal- 1200 ± 200 nA/ppmResolution0,1 ppmTemperature Range- 20 °C to 45 °CPressure RangeAtmospheric ± 10%Pressure CoefficientNo dataT ₉₀ Response Time< 60 secRelative Humidity Range15 % to 90 % R.H. non-condensingTypical Baseline Range (pure air, 20°C)< 0.1 ppmMaximum Zero Shift (+20°C to +40°C)- 0,2 ppmLong Term Output Drift< 2% signal loss/monthRecommended Load Resistor10 - 33 OhmBias VoltageNot requiredRepeatability< 2 % of signalOutput LinearityLinear		
Expected Operation Life2 years in airOutput Signal $-1200 \pm 200 \text{ nA/ppm}$ Resolution $0,1 \text{ ppm}$ Temperature Range $-20 \degree C$ to $45 \degree C$ Pressure RangeAtmospheric $\pm 10\%$ Pressure CoefficientNo dataT ₉₀ Response Time< 60 sec	Nominal Range	0 – 20 ppm
Output Signal $-1200 \pm 200 \text{ nA/ppm}$ Resolution0,1 ppmTemperature Range $-20 \degree C$ to 45 °CPressure RangeAtmospheric $\pm 10\%$ Pressure CoefficientNo dataT_{90} Response Time< 60 sec	Maximum Overload	200 ppm
Resolution0,1 ppmTemperature Range- 20 °C to 45 °CPressure RangeAtmospheric ± 10%Pressure CoefficientNo dataT ₉₀ Response Time< 60 sec	Expected Operation Life	2 years in air
Temperature Range- 20 °C to 45 °CPressure RangeAtmospheric ± 10%Pressure CoefficientNo dataT ₉₀ Response Time< 60 sec	Output Signal	- 1200 \pm 200 nA/ppm
Pressure RangeAtmospheric \pm 10%Pressure CoefficientNo data T_{90} Response Time< 60 sec	Resolution	0,1 ppm
Pressure CoefficientNo data T_{90} Response Time< 60 sec	Temperature Range	- 20 °C to 45 °C
T_{90} Response Time< 60 secRelative Humidity Range15 % to 90 % R.H. non-condensingTypical Baseline Range (pure air, 20°C)< 0.1 ppm	Pressure Range	Atmospheric ± 10%
Relative Humidity Range15 % to 90 % R.H. non-condensingTypical Baseline Range (pure air, 20°C)< 0.1 ppm	Pressure Coefficient	No data
non-condensingTypical Baseline Range (pure air, 20°C)< 0.1 ppm	T ₉₀ Response Time	< 60 sec
Typical Baseline Range (pure air, 20°C)< 0.1 ppmMaximum Zero Shift (+20°C to +40°C)- 0,2 ppmLong Term Output Drift< 2% signal loss/month	Relative Humidity Range	15 % to 90 % R.H.
air, 20°C)AnnotationMaximum Zero Shift (+20°C to +40°C)- 0,2 ppmLong Term Output Drift< 2% signal loss/month		non-condensing
Maximum Zero Shift (+20°C to +40°C)- 0,2 ppmLong Term Output Drift< 2% signal loss/month		< 0.1 ppm
to +40°C)		
Long Term Output Drift< 2% signal loss/monthRecommended Load Resistor10 – 33 OhmBias VoltageNot requiredRepeatability< 2 % of signal		- 0,2 ppm
Recommended Load Resistor10 – 33 OhmBias VoltageNot requiredRepeatability< 2 % of signal	to +40°C)	
Bias VoltageNot requiredRepeatability< 2 % of signal	Long Term Output Drift	< 2% signal loss/month
Repeatability < 2 % of signal	Recommended Load Resistor	10 – 33 Ohm
	Bias Voltage	Not required
Output Linearity Linear	Repeatability	< 2 % of signal
	Output Linearity	Linear

CROSS-SENSITIVITY DATA

Interfering Gas	Concentration	Reading
CO	300 ppm	0 ppm
SO ₂	5 ppm	0 ppm
NO	35 ppm	0 ppm
H ₂	300 ppm	0 ppm
Ethylene	100 ppm	0 ppm

Performance data conditions: 20 °C, 50% RH and 1013 mbar

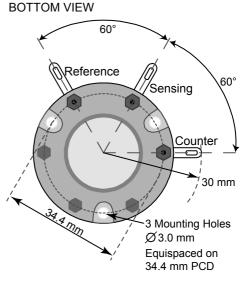
APPLICATIONS

Continuous Air Quality Monitoring Safety and Environmental Control

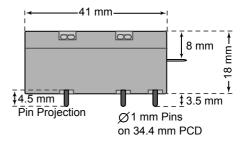
PHYSICAL CHARACTERISTICS

Weight	~ 27 g
<u> </u>	None
Position Sensitivity	
Storage Life	Six months in
	container
Recommended Storage	5 °C – 20 °C
Temperature	
Warranty Period	12 months from date
-	of dispatch

Slim-Size Outline Dimensions







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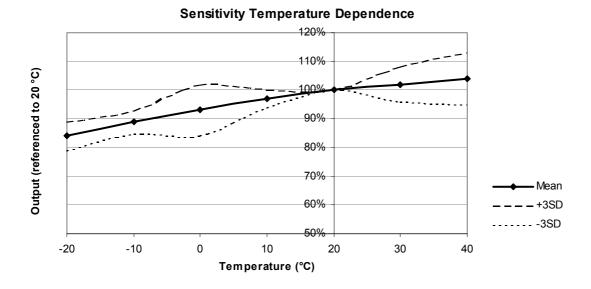
MEMBRAPOR AG Rautistrasse 164 CH-8048 Zürich Switzerland

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SPECIFICATION SHEET FOR NO2 SENSOR TYPE NO2 /S-20-S

TEMPERATURE DEPENDENCE

The output of an electrochemical sensor varies with temperature. The graphs below show the variation in output with temperature for this type of sensor. The results are shown in the graphs as a mean for a batch of sensors, along with confidence intervals corresponding to ± 3 times the standard deviation. The sensitivity dependence is expressed as a percentage of the signal at 20 °C.



The baseline is virtually not affected by changes in temperature.

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 the information contained within it. The data is given for guidance only. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.

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