

# MEMBRAPOR SPECIFICATION SHEET

## H2/CB-1000



### Hydrogen Gas Sensor in Compact Housing

#### MEASUREMENT

Operation Principle	3-Electrode Electrochemical
Nominal Range	0 – 1'000 ppm
Maximum Overload	2'000 ppm
Inboard Filter	–
Output Signal	28.5 ± 11.5 nA/ppm
Resolution (Electronics dependent)	< 2 ppm
T90 Response Time	< 40 sec
Typical Baseline Range (pure air, 20°C)	< 10 ppm
Maximum Zero Shift (+20°C to +40°C)	N.D.
Repeatability	< 5 % of signal
Output Linearity	Linear
Gain	–

#### ELECTRICAL

Rec. Load Resistor	10 Ohm
Bias (V_Sens-V_Ref)	Not allowed
Conformity to RoHS directive	RoHS Compliance

#### ENVIRONMENTAL

Relative Humidity Range	15 % to 90 % R.H. non-condensing
Temperature Range	0 °C to 50 °C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	N.D.
Humidity Effect	none

#### LIFETIME

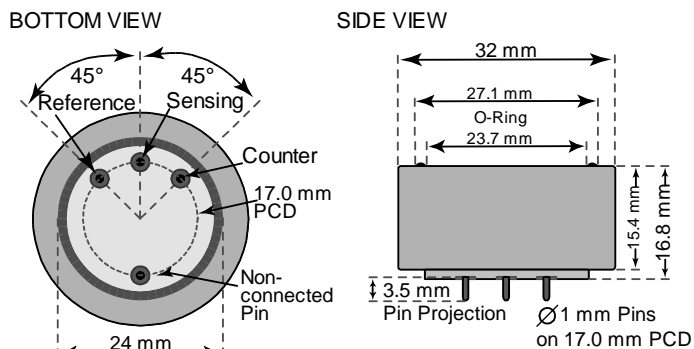
Expected Operation Life	2 years in air
Expected Long Term Output Drift in air	< 2% signal loss / month
Filter Life	–
Storage Life	6 months in container
Rec. Storage Temperature	5 °C – 20 °C
Warranty Period	12 months from date of dispatch

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

#### IMPORTANT NOTE

- Oxygen content in the gas sample must be > 2%
- CO cross sensitivity can be > 5% below 0 °C

#### Compact-Size Outline Dimensions



± 0.10 mm

#### MECHANICAL

Weight	13 g
Position Sensitivity	None

#### APPLICATIONS

Safety and Process Control  
H2 Detection in H2/CO-Mixtures  
Medical Applications

#### CROSS-SENSITIVITY DATA

The table below does not claim to be complete. Interfering gases should not be used for calibration.

Interfering Gas	Conc. ppm	Reading ppm
H <sub>2</sub> S	20	0
CO	600	< 18 <sup>4</sup>
Organic solvents		<sup>5</sup>

4) for temperature ≥ 20 °C

5) Sensor contains a protection, which reduces the impact on the BL

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## H2/CB-1000

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### TEMPERATURE DEPENDENCE

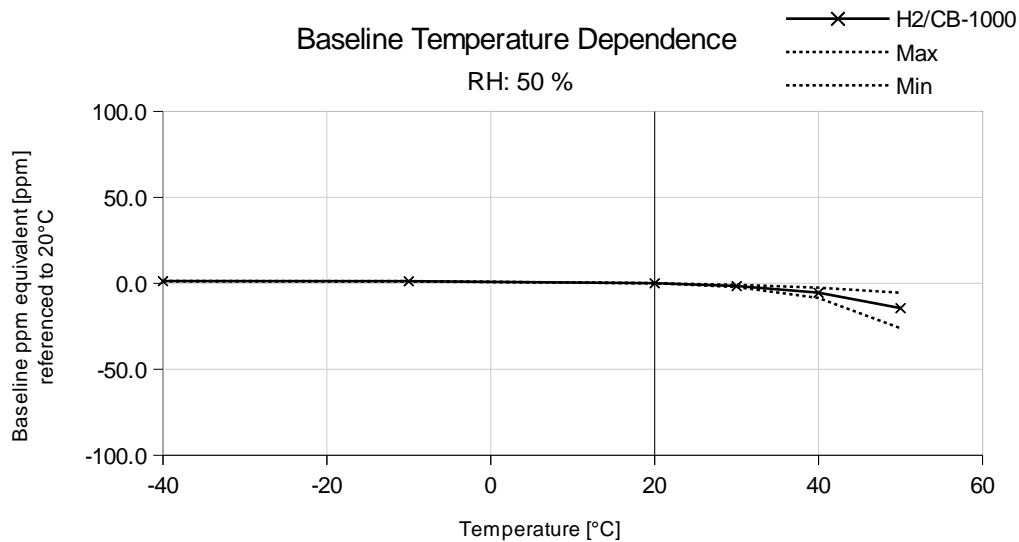


Figure 2: The shift in baseline shown in ppm referenced to 20 °C and a relative humidity of 50%.

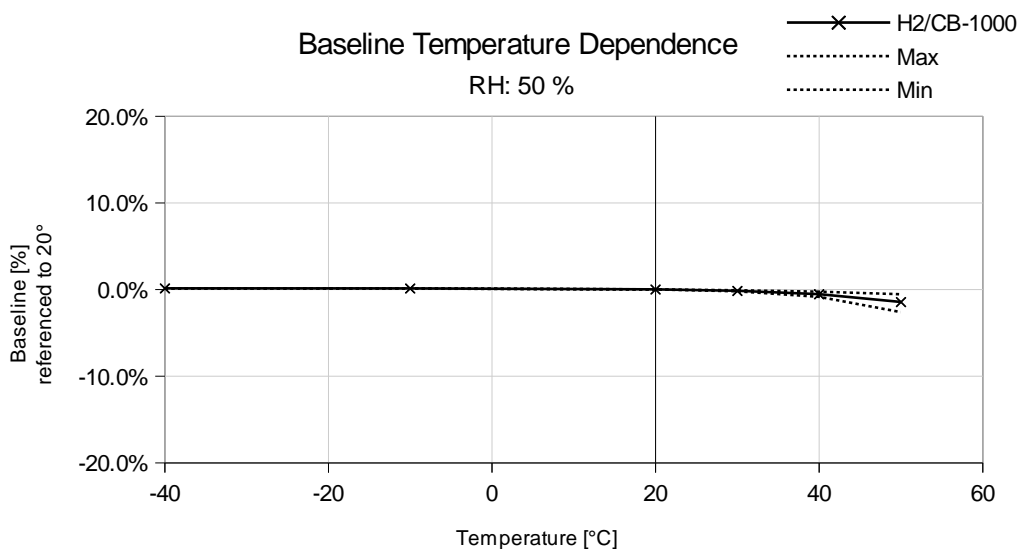


Figure 3: The shift in baseline expressed as percentage of the measurement range referenced to 20 °C and a R.H. of 50%.

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