



## Ethyne, Acetylene Gas Sensor C2H2/CF-200

C2H2 Gas Sensor in Compact Housing

### Applications

- Discontinuous Measurement
- Chemical Synthesis
- Welding and Cutting Processes

For further information about usage of Memrapor sensors, see application note [MEM1](#).

### Measurement

Operation Principle	3-Electrode Electrochemical
Nominal Range	0 - 200 ppm
Maximum Overload	1000 ppm
Inboard Filter	-
Output Signal	500 ± 100 nA/ppm
Resolution (Electronics dependent)	< 0.1 ppm
T80 Response Time	< 60 s
Typical Baseline Range (pure air, 20°C)	-0.2 ppm to 0.8 ppm
Maximum Zero Shift (+20°C to +40°C)	2 ppm
Repeatability	< 2 % of signal
Output Linearity	Linear
Gain (Only applies to 4-Electrode sensors)	-

#### **Performance data recorded at 20 – 25 °C, 30 - 50% RH, 900 - 1100 mbar**

The data contained in this document is for guidance only. Memrapor 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.



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### Electrical

Rec. Load Resistor	10 - 33 $\Omega$
Bias (V_Sens-V_Ref)	not recommended
Conformity to RoHS directive	RoHS Compliance

### Environmental

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

### Lifetime

Expected Operation Life	3-5 years in air, application based, see MEM1
Expected Long Term Output Drift	< 15 % signal loss per year
Filter Life	N.D.
Storage Life	6 months in container
Recommended Storage Temperature	-10°C - 30°C
Warranty Period	3 years from date of dispatch

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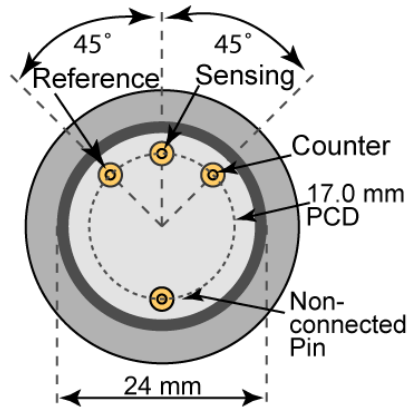
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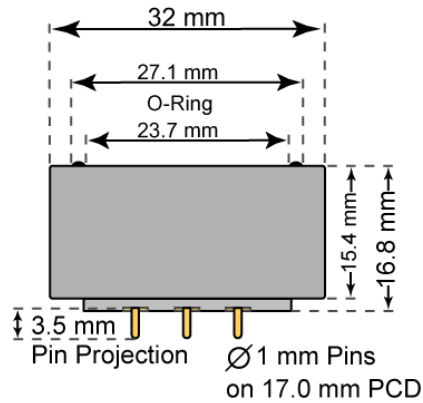
#### Compact-Size Outline Dimensions

BOTTOM VIEW



± 0.10 mm

SIDE VIEW



#### Mechanical

Weight	13 g
Orientation	Any
Housing material	Polycarbonate

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### Cross Sensitivity Data

The table below does not claim to be complete. We recommend using the target gas for calibration purposes. Using surrogate (interfering) gases can result in inaccuracies in the final calibration. Please contact Membrapor AG for further support regarding cross sensitivities.

Interfering Gas	Concentration [ppm]	Reading [ppm]
C <sub>2</sub> H <sub>4</sub>	50	~ 19
CO	200	55
H <sub>2</sub>	200	~ 10
H <sub>2</sub> S	500	0
SO <sub>2</sub>	20	4

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