



HF/M-10

Hydrogen Fluoride Gas Sensor in Miniature Housing

Measurement

Operation Principle	3-Electrode Electrochemical
Nominal Range	0 - 10 ppm
Maximum Overload	100 ppm
Inboard Filter	-
Output Signal	- 110 ± 40 nA/ppm
Resolution (Electronics dependent)	< 1 ppm
T90 Response Time	< 60 s
Typical Baseline Range (pure air, 20°C)	-1 ppm to 1 ppm
Maximum Zero Shift (+20°C to +40°C)	0.2 ppm
Repeatability	< 2 % of signal
Output Linearity	Linear
Gain	-

Electrical

Rec. Load Resistor	10 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

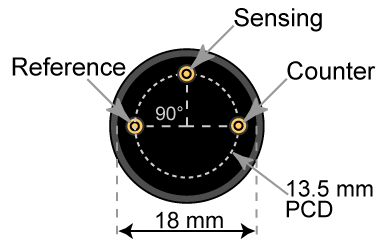
Lifetime

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

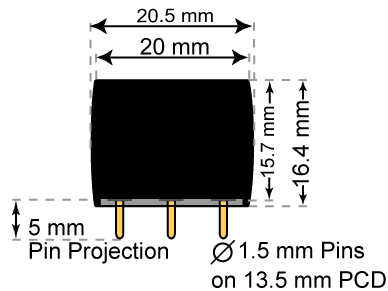


Miniature-Size Outline Dimensions

BOTTOM VIEW



SIDE VIEW



± 0.10 mm

Mechanical

Weight 5.5 g
Position Sensitivity None

Applications

Safety and Process Control
For Portable Gas Detectors

Cross Sensitivity Data

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

Interfering Gas	Concentration [ppm]	Reading [ppm]
CO	250	0
EtOH	60	< 5
H ₂	1000	0
H ₂ S	20	-57
HCl	21	4
NH ₃	80	-11
NO ₂	5	12
PH ₃	5	0.3
SiH ₄	20	0
SO ₂	10	> -50 ¹⁾

¹⁾ SO₂ exposure should be avoided.

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Phone: +41 43 311 72 00

Fax: +41 43 311 72 01

E-Mail: info@memrapor.ch

Website: www.memrapor.ch

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Memrapor AG

Birkenweg 2

CH-8304 Wallisellen

Switzerland

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

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