

MEMBRAPOR SPECIFICATION SHEET

ETO/C-20



Ethylene Oxide Gas Sensor in Compact Housing

MEASUREMENT

Operation Principle	3-Electrode Electrochemical
Nominal Range	0 – 20 ppm
Maximum Overload	100 ppm
Inboard Filter	–
Output Signal	2500 ± 600 nA/ppm
Resolution (Electronics dependent)	< 0.1 ppm
T90 Response Time	< 140 sec
Typical Baseline Range (pure air, 20°C)	0 ppm to 1 ppm
Maximum Zero Shift (+20°C to +40°C)	N.D.
Repeatability	< 2 % of signal
Output Linearity	Linear
Gain	–

ELECTRICAL

Rec. Load Resistor	10 Ohm
Bias (V_Sens-V_Ref)	+300 mV
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

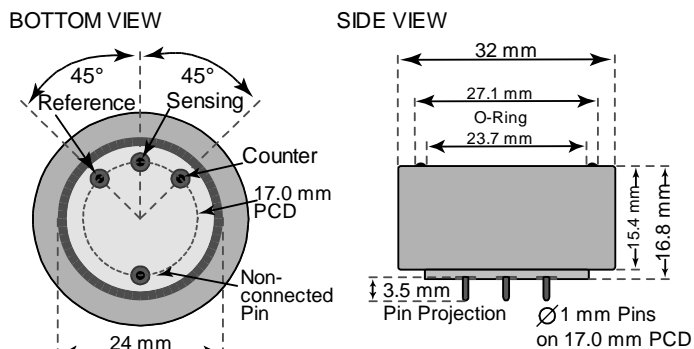
Expected Operation Life	2 years in air
Expected Long Term Output Drift in air	< 2 % per month
Filter Life	–
Storage Life	6 months in container
Rec. Storage Temperature	5 °C – 20 °C
Warranty Period	12 months from date of dispatch

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

IMPORTANT NOTE

1) Fresh sensors with bias need 24-72 h for stabilization of the baseline

Compact-Size Outline Dimensions



± 0.10 mm

MECHANICAL

Weight	13 g
Position Sensitivity	None

APPLICATIONS

Sterilization Processes
Fruit Ripening

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
CO	100	45
Ethanol	30	21
Formic Acid	42	42 ± 3
Aromatic Hydrocarbons	30	< 15

REV.: 10/2018

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TEMPERATURE DEPENDENCE

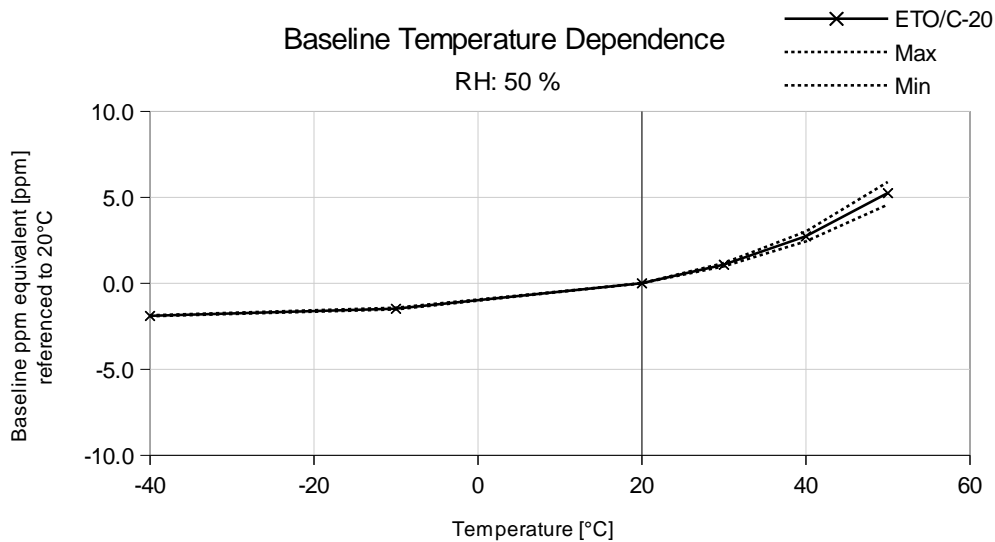


Figure 2: The shift in baseline shown in ppm referenced to 20 °C and a relative humidity of 50%.

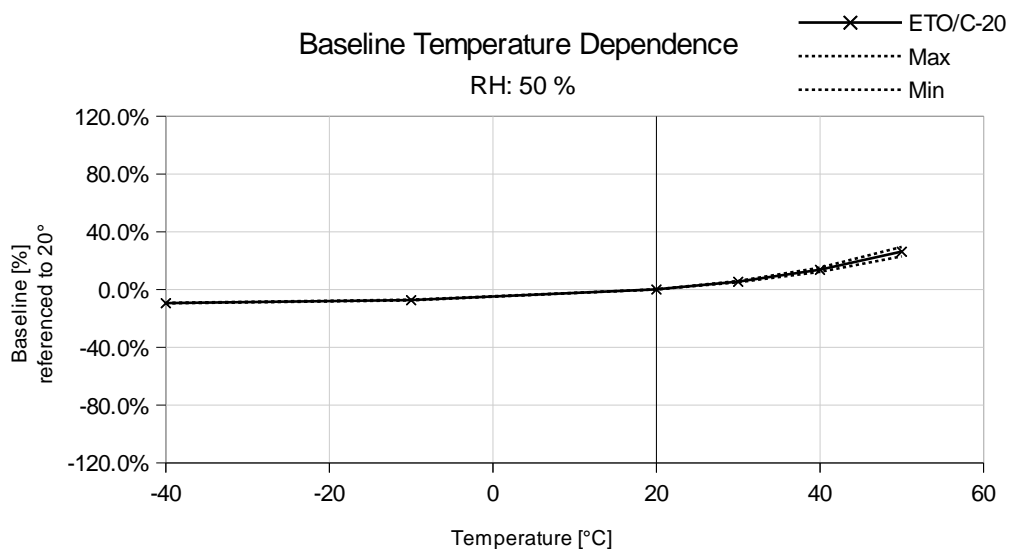


Figure 3: The shift in baseline expressed as percentage of the measurement range referenced to 20 °C and a R.H. of 50%.

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