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Product Data Sheet

ELECTROCHEMICAL N2H4-1 SENSOR (4 SERIES) (PN: 082-0000-000)

• Description

This sensor is designed for the measurement of Hydrazine concentration in gas phase. It can be used as a pin-to-pin replacement for the standard 4-series electrochemical Hydrazine sensors made by other manufacturers.

• Performance Characteristics

Nominal Range:	0 ~ 1 ppm
Maximum Overload:	5 ppm
Sensitivity (20°C):	1.0 ± 0.4 µA/ppm
Response Time (T90):	≤ 120 s
Zero Signal (20°C):	< ±0.2 µA
Baseline Shift (-20°C ~ 50°C):	< 0.2 ppm
Resolution:	0.02 ppm
Linearity:	Linear up to 1 ppm
Bias Voltage:	0 mV

• Environmental

Temperature Range:	-20°C ~ 50°C
Pressure Range:	1 ± 0.1 atm
Humidity Range:	15% ~ 90%RH non-condensing

• Life Time

Long Time Output Drift:	< 2% signal/month
Recommended Storage Temp:	10°C ~ 30°C
Expected Operating Life:	2 years in clean air
Storage Life:	6 months in original packaging
Warranty:	12 months

• Intrinsic Safety Data

Max. Current at 5ppm N2H4:	< 0.2 mA
Max. O/C Voltage:	1.3 V
Max. S/C Current:	< 1.0 A

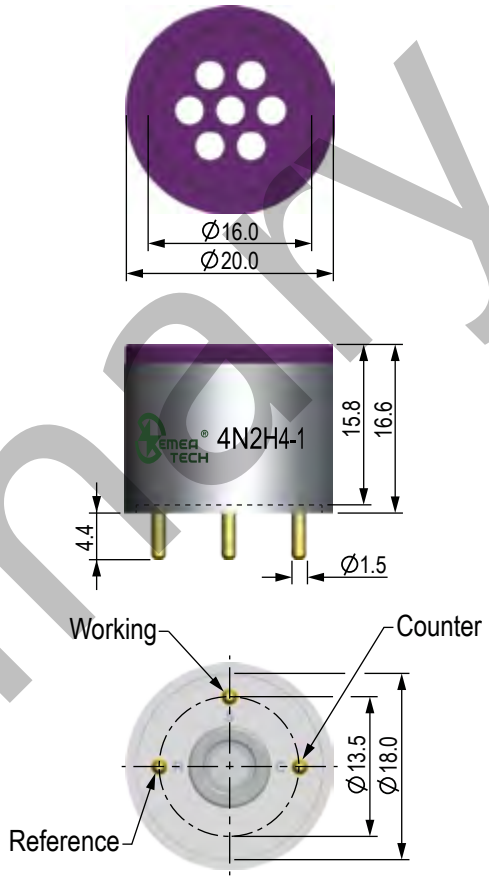
• Physical Characteristics

Housing Material:	ABS
Weight (Nominal):	5 g
Orientation:	None

• Installation

Output signals from the sensor pins are different. Inappropriate use of the pins in product design will affect the sensor functionality. Exposure to high concentrations of solvent vapors should be avoided under any condition. Mechanical overstress may cause deformation or cracks of the plastic enclosure of the sensor. If the sensor is used in extreme environmental conditions, please contact us for more details.

• Product Dimensions



All dimensions in mm
All tolerances ±0.20mm unless otherwise stated

• Note

The performance data in this document are conducted by using SemeaTech recommended test circuitry and test environment at 20°C, 50%RH and 1 atm. Sensor performance varies under different environmental conditions. Please contact us if you need more details.

Rev: Draft

Hydrazine:

The new 4 Series N2H4-1 sensor is for the gas Hydrazine, a highly polarizing compound (with pungent odor similar to ammonia). It can explode and decompose with long term exposure to air or short term high temperature exposure. Hydrazine is used primarily as rocket fuel and in fuel cells. It is also used as a pharmaceutical raw material for synthesizing aminourea, isoniazid, furacilinum and other compounds. It is strongly reducible so it can corrode glass, rubber, leather, cork, etc.

This new 4 Series Hydrazine sensor offers excellent stability, high selectivity and fast response time. The sensor plays a critical role in ensuring worker safety and precise process control where Hydrazine is used.