

## SGX-4H2-50k Datasheet

SGX-4H2-50k is a high-quality hydrogen sensor provided in a miniature 4-series housing. This gas sensor is very useful in industries where the detection of hydrogen is important. It can be used in many applications such as warehouses, laboratories, industrial halls, and many other places. Due to its small size, it can be easily mounted in different locations and monitor gas levels in real-time. SGX-4H2-50k is an excellent choice for those who need a reliable gas sensor in their company or institution.

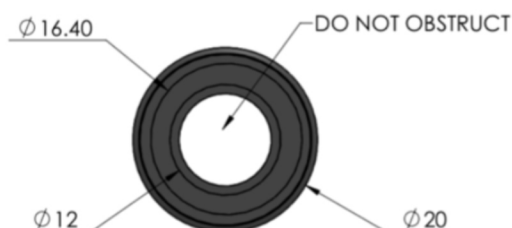
### PERFORMANCE

Output signal	0.5 ± 0.25 nA / ppm
Typical Baseline Range (pure air)	±100 ppm
T90 Response Time	<40 s (Typically <20s)
T50 Response Time	Typically <10s
T20 Response Time	Typically <5s
Measurement Range	0 - 50 000 ppm
Maximum Overload	10% Vol
Linearity (0 - 50 000ppm)	±3%
Repeatability	< ±2%
Recommended Load Resistor	10 ohms
Resolution	< 5 ppm



### OUTLINE

All dimensions are in mm  
All tolerances are ±0.15mm



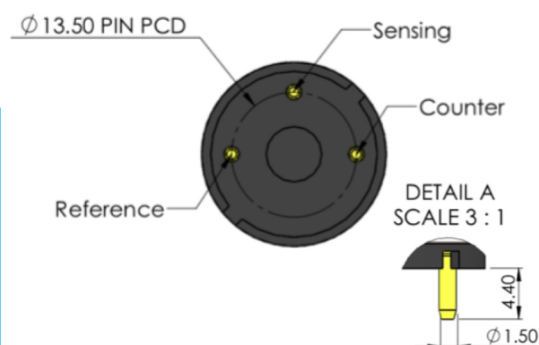
### OPERATING CONDITIONS

Temperature Range	-30°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH



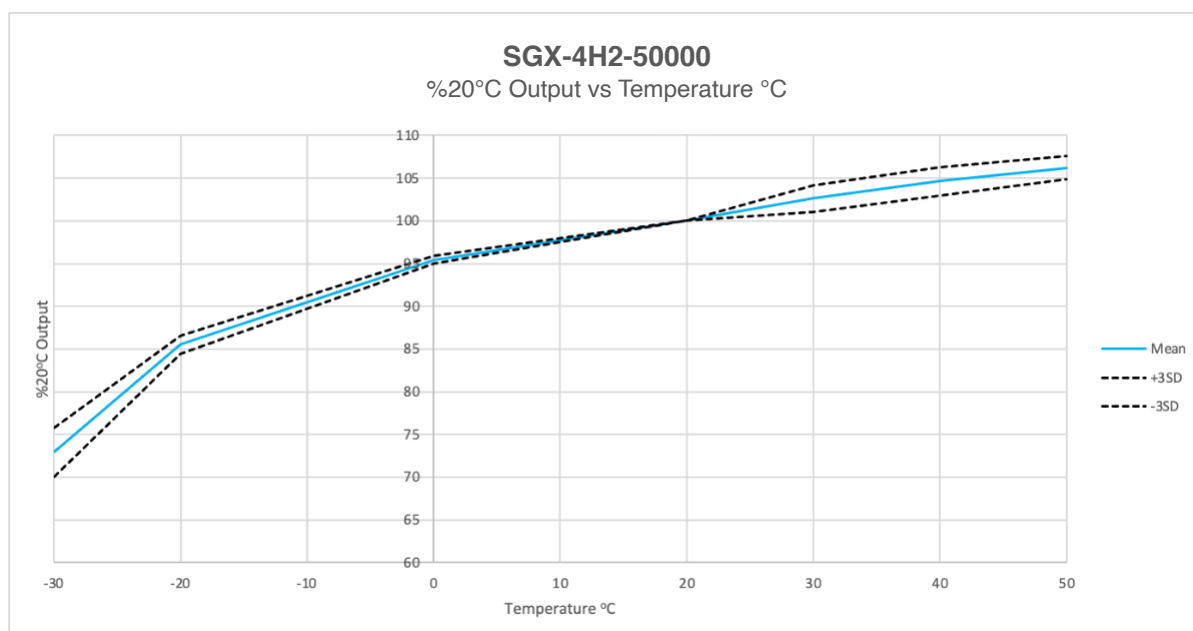
### LIFETIME

Long Term Output Drift	< 2% per month
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air



## CROSS SENSITIVITY

Gas	Test Concentration	Sensor Reading
Hydrogen Sulphide	25 ppm	<2 ppm
Nitric Oxide	50 ppm	<30 ppm
Nitrogen Dioxide	20 ppm	0 ppm
Sulphur dioxide	20 ppm	0 ppm
Carbon Monoxide	1000 ppm	<300 ppm
Chlorine	50 ppm	0 ppm



## INTRINSIC SAFETY DATA

Maximum at 2000 ppm	0.3 mA
Maximum o/c Voltage	1.3 V
Maximum o/c Current	< 1.0 A

### DISCLAIMER:

SGX Europe Sp. z o.o. reserves the right to change design features and specifications without prior notification. We do not accept any legal responsibility for customer applications of our sensors. SGX Europe Sp. z o.o. accepts no liability for any consequential losses, injury or damage resulting from the use of this document, the information contained within or from any omissions or errors herein. This document does not constitute an offer for sale and the data contained is for guidance only and may not be taken as warranty. Any use of the given data must be assessed and determined by the user thereof to be in accordance with federal, state and local laws and regulations. All specifications outlined are subject to change without notice.

SGX Europe Sp. z o.o. sensors are designed to operate in a wide range of harsh environments and conditions. However, it is important that exposure to high concentrations of solvent vapours is to be avoided, both during storage, fitting into instruments and operation. When using sensors on printed circuit boards (PCBs), degreasing agents should be used prior to the sensor being fitted. SGX Europe Sp. z o.o. makes every effort to ensure the reliability of its products. Where life safety is a performance requirement of the product, we recommend that all sensors and instruments using these sensors are checked for response to gas before use.

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