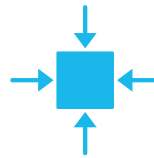
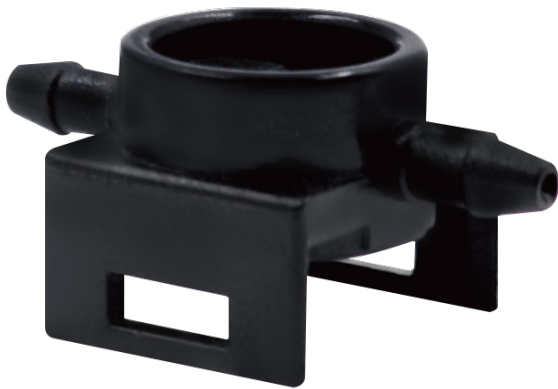




SGX

SENSORTECH

An Amphenol Company



Small Size



Double-sided
Bayonet



Seal Design

PS1-Gashood Datasheet



Quality, Safety, Responsibility

Overview

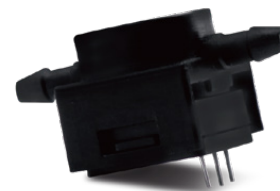
The PS1 Sensor Gashood is designed to simulate a small volume of gas diffusion space, which is more suitable for sensor operation under stable conditions and for measurements or calibrations. With the flowmeter outlet or the pump suction, the measured gas continuously flows into the Gashood chamber and discharges this diffusion space.

The PS1 Sensor Gashood is suitable for all SGX Sensortech PS1 series sensors and gas sensor modules with PS1 sensors. It is used in the above products for testing, calibrating and building systems with flow or pump.

During product development, the PS1 Sensor Gashood can be used for continuous testing as well as for gas calibration of the sensor or sensor module.

If the gas sensor or gas sensor module has been used for an extended period of time and calibration is necessary, the PS1 Gas Sensor Gashood can be used to calibrate the gas introduced into the product.

When setting up systems or instruments with a pump and with PS1 gas sensors or gas sensor modules, the PS1 Sensor Gashood can be selected for use with the gas chamber in the instrument.



PS1 Gas Sensor with Gashood

Features

It is made of corrosion-resistant ABS material by injection molding, has a compact structure and shows good overall compatibility when working with the PS1 sensor. Small volume of internal space structure, tight fit design with sensor.

When adapting the PS1 sensor, the double-sided bayonet design is utilized, which not only ensures that the bottom does not fall off, but also realizes the uniform force of the top sealing ring and guarantees the air tightness.

The design of the gas path barrier prevents the target gas from directly impacting the gas sensor while allowing the measured gas to contact the gas sensor for the first time, ensuring a fast response to the gas.

The cross-sectional size of the trachea and the volume in the Gashood are precisely calculated to ensure the gas volume required for the chemical reaction of the PS1 sensor.

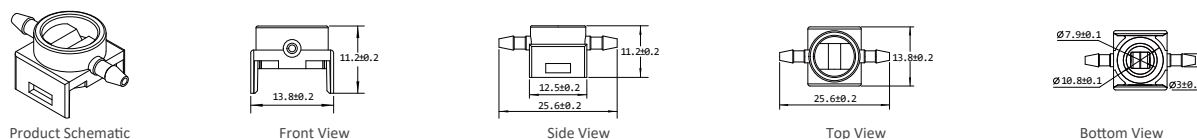
Based on the small volume structure, it can be used in series

Technical Specification

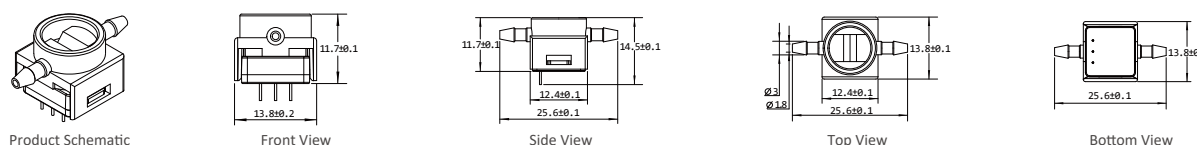
Material	Corrosion-resistant ABS material, RoHS compliant
Adapt gas sensor	PS1 series gas sensors
Adapt gas sensor module	PS1-MOD
Adapt gas tube specifications	Inner diameter 2mm, outer diameter 4mm It is recommended to use PTFE gas pipelines for corrosive and adsorbent gases. No requirements for other non-absorbable and corrosive gases.
Applicable gas flow	100-1000 ml/min Note: 1) The maximum flow rate of non-absorbable gas is 100ml/min, and the typical flow rate is 85ml/min 2) Adsorbent gas adopts 100ml-1000ml/min flow rate, typical flow rate is 300ml/min
Size	25.6mm x 13.8mm x 11.2mm
Weight	2.8g

Dimensions

PS1 Gas Sensor Gashood Mechanical Diagram unit: mm



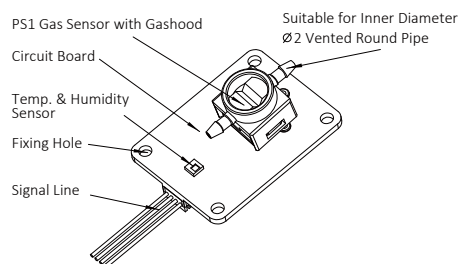
PS1 Gas Sensor with Gashood Mechanical Diagram unit: mm



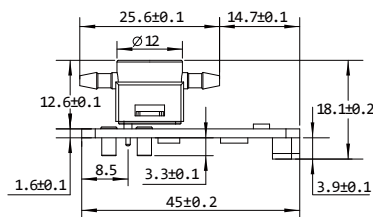
Dimensions

Gas Sensor Module with Gashood Mechanical Diagram

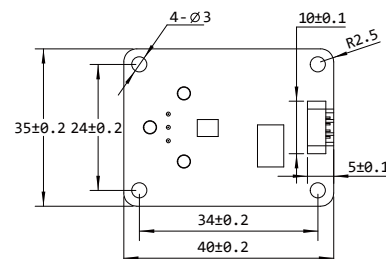
unit: mm



Product Schematic



Front View



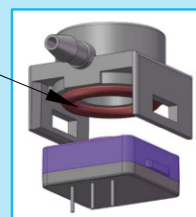
Bottom View

User Guide

Checking before use

- Test the two gas nozzles through the holes to confirm whether there is any blockage caused by transportation, improper storage, exposure to complex environments, etc. Ensure that the gas is passing through.
- Check that the O-ring inside of the sensor Gashood is installed in the correct position, has not dropped or is missing.

O-ring



Usage Steps

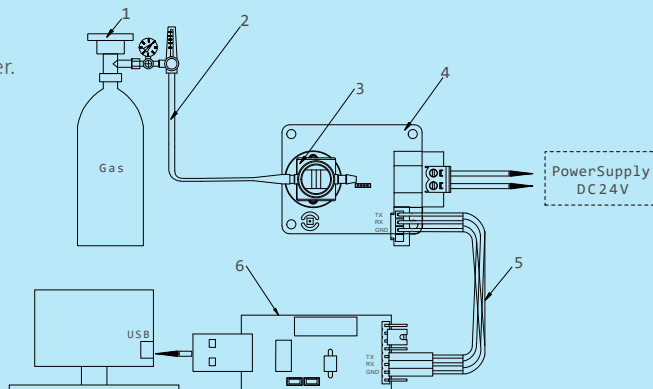
- The gas nozzles on both sides of the PS1 gas sensor Gashood are through-structure, all of which can pass gas. When one is an air inlet, the other is an air outlet.
- Install the air pipes (see technical parameters) with the required size and material into the two air nozzles of the Gashood respectively.
- Align the Gashood with the protrusions on either side of the PS1 sensor and slowly push it into Gashood until it is fully seated.

Usage of gas bottle or gas with pressure

Connect the air inlet of the Gashood to the air outlet of the flowmeter.
Open the flowmeter to start detection.

Notes

- 1: Gas Bottle
- 2: Gas Tube
- 3: PS1 Sensor Gashood
- 4: Gas Sensor Module
- 5: 4Pin Cable
- 6: UART to USB Module with Isolation



Usage of pump suction gas sampling

When the measurement gas exists in a chamber or pipeline sealed at atmospheric pressure:
Connect the air inlet of the flow hood to the air outlet of the closed box or pipeline.

When the measurement gas comes from atmospheric environment:

Connect the air inlet of the Gashood to the air inlet of the sampling tube, which is exposed to the air.

- When the Gashood needs to be removed after the test, to avoid damaging the pins of the PS1 sensor or touching the components on the circuit board, the Gashood should be removed together with the PS1 sensor from the circuit board. Then gently open the clasp of the flow cover by hand or with a suitable non-metallic tool, at the same time remove the PS1 sensor from the flow cover and then install the sensor back to its original position on the circuit board.

Cautions

- No matter which gas nozzle is selected as the gas inlet, the flowmeter should be placed in front of the gas inlet, that is, "blow" into the Gashood.
- However, when connecting to a gas pump, the PS1 gas sensor Gashood should be at the front end of the gas pump, and the gas inlet of the pump should be connected to the gas outlet end of the Gashood.
- The flow rate should be set according to the reaction characteristics of the electrochemical sensor. The usual flow rate is 500 ml/min.
- If the intake gas tube is too long (> 1m), the gas concentration is low, or gas with strong absorption is introduced, the flow rate can be increased according to the test results and prolong the ventilation time to ensure the absorption saturation of the air path and Gashood and to ensure stable measurement.
- Always keep the exhaust vent clear, do not block it.
- If the test effect deviates significantly from the standard data, the above items should be checked one by one, which usually does not relate to the performance of the Gashood.

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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