DYNAMENT
INFRARED GAS SENSORS

Technical data sheet TDS0025

Gas Sensor Housing Type NGSH4-P fitted with PCB for a Premier Infrared Gas Sensor

FEATURES INCLUDE: -

- **Non- Certified housing for Premier infrared sensors**
- **Nylon housing for safe-area use.**
- **For use with, industry standard junction boxes or OEM gas detector enclosures.**
- **Compact Size**
- **Various mounting threads available M20, ½" NPT, ¾" NPT**
- **Housing can be opened to gain access to the plug-in sensor.**
- **Gas sampling adaptor accessory available for easy calibration.**
- **Rainguard accessory with gas sampling feature also available to protect the sensor in wet environments or areas subjected to hosing.**

Specification	
Type	Non-certified sensor housing.
Housing Material	Nylon
Body Dimensions	40 mm Diameter x 60 mm Long (excluding a thread length of up to 20mm)
Weight (approx)	108 grams (without sensor), 132 grams (with sensor)
Operating Temp	The temperature ranges stated here refer to the GSH4 Exd sensor housing only. Refer to the relevant sensor data sheet for the sensor specifications.
Storage Temp	The temperature ranges stated here refer to the GSH4 Exd sensor housing only. Refer to the relevant sensor data sheet for the sensor specifications.
Humidity Range	0 to 95% R.H. Non-condensing
Sensor Supply Voltage	3.0 – 5.0 V dc, 75-85mA operating current.
Electrical Output	Either “voltage” output or pellistor replacement “Bridge” output, specify when ordering.
Gas Type	Hydrocarbon, carbon dioxide, Nitrous oxide or Dual gas
Sensor Type	Premier infrared
Measuring Range	Dependent upon sensor type specified when ordering
Response Time	T90 = <30sec. Note that the response time will be increased when the optional PTFE filter is fitted. Response time is dependent upon gas type and concentration.

Connection details	
Wire function	**Wire colour**
+ ve Supply	**POSITIVE** sensors: Blue
	NEGATIVE sensors: Yellow
- ve Supply	**POSITIVE** sensors: Yellow
	NEGATIVE sensors: Blue
Output	White
RX pin	Brown, (See note 2)
TX pin	Orange, (See note 2)

Notes:

1. When the data communications facility is not required, the ends of the brown and orange wires should be insulated and secured to prevent electrical contact with any other wires or metalwork.

Instructions for fitting a sensor inside the housing

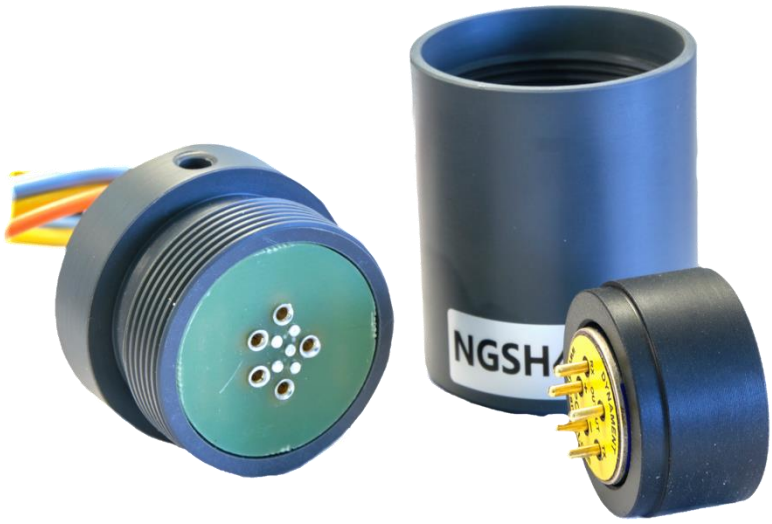
1) Unscrew the cover by turning it anti-clockwise.

2) Insert the sensor into the sockets on the circuit board, ensuring that it is fully pressed into position.

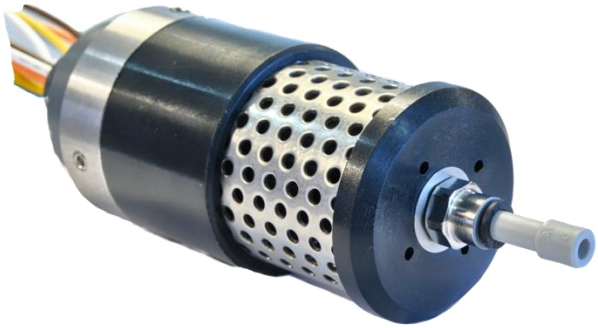
3) The assembly contains a black plastic spacer that fits over the sensor to reduce “dead space” and to provide a good seal to the inside of the cover of the housing. Gently fit the plastic spacer over the sensor, ensuring that it comes into close contact with the top of the sensor. Note that the spacer contains an internal O-ring, some resistance will therefore be felt as the spacer is fitted over the sensor.

4) Also included is a foam washer beneath which is a PTFE filter to prevent the ingress of water or dust. Whilst offering environmental protection, this filter will increase the gas response time. If preferred, the filter can be removed, after temporarily removing the foam washer.

5) Carefully replace the cover by screwing it clockwise until the gap between the cover and flange of the housing is closed. Note that there will be some resistance as the gap closes because of the compression of the foam washer and the internal O-ring that provides a seal.



Accessories



GSH4 fitted with optional Rainguard Type GSH4 - GUARD featuring a gas-sampling tube for gas checks.

GSH4 fitted with optional Calibration Adaptor Type GSH4 –CAL-ADTR

Dynament Limited

Hermitage Lane Industrial Estate ◆ Kings Mill Way ◆ Mansfield ◆ Nottinghamshire ◆ NG18 5ER ◆ UK.

Tel: 44 (0)1623 663636

email: sales@dynament.com ◆ www.dynament.com