

QUICK START GUIDE



GASTRACK

O₂ Combustion Gas Analyser Probe (GAP)

1a. Unpack the gas analyser probe, accessories and documents. Ensure contents are correct, contact SST Sensing Ltd. if anything is missing.



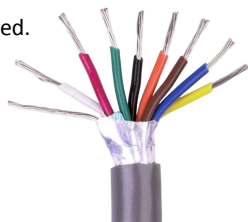
1b. Transfer the device to a clean workbench.

NOTE: Read the User Guide BEFORE proceeding; the Quick Start Guide (this document) is for reference only.

2. Measure the distance between the probe installation site and the controller, and cut cable to length.

NOTE: Leave enough cable length to ensure the probe can be removed from its location without stretching the cable.

CAUTION: Cable MUST be shielded.



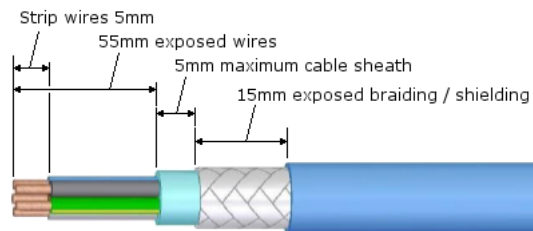
3. Remove the front panel (1) and set to one side:

- Loosen four captive screws (2) and carefully ease the front panel (1) from the housing.
- Disconnect the ribbon cable from the front panel (1).

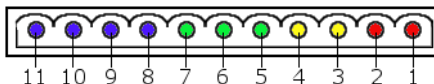


WARNING: Do NOT apply power during installation.

- Feed the cable through the gland; pull through enough length to allow easy fitting of the terminal block connector.
- Prepare your cable; shielding exposed and wire ends trimmed.



CAUTION: Make sure the terminals are wired as shown; failure to connect power correctly could result in irreversible damage to the device.



Power Supply

- PIN 1: 24V_{DC}
- PIN 2: 0V

Digital Output

- PIN 3: COM1
- PIN 4: COM2

Analogue Output

- PIN 5: Analogue GND
- PIN 6: Analogue Out1
- PIN 7: Not Used

Relay Output

- PIN 8: Relay 1 In
- PIN 9: Relay 1 Out
- PIN 10: Relay 2 In
- PIN 11: Relay 2 Out

NOTE: Do NOT leave any wires loose; accidental shorting may cause product damage.

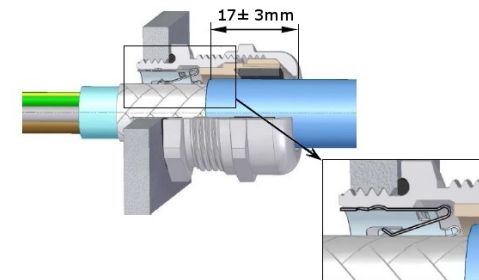
4c. Carefully pull cable back through the gland until the connector aligns with the board; fit connector to the board.



Always handle the interface board using the correct ESD handling precautions.



CAUTION: Make sure the shielding is intact and correctly positioned to ensure the device is grounded properly.



4d. Using a 24mm spanner, tighten the cable gland to secure the cable in place.

NOTE: Be careful not to over-tension the wires or over-tighten the gland.



5. Set the Modbus 4-way dip switches:



- Manual address selector (0-15):
 - Switch positions are read at power up & override saved address in memory
 - Switch 1 = LSB, Switch 4 = MSB
 - All switches down = 0 = Default or current saved address in memory
- Example = Switch 1 UP & Switch 4 UP = 9

If required, refer to Modbus address table in *UG-003, GAP User Guide* for full details.

6. Fit the front panel and screw covers to the head housing:

- Connect the ribbon cable to the front panel (1).
- Install the front panel (1) to the housing and secure in place with the four captive screws (2).
- Fit the screw covers (3).



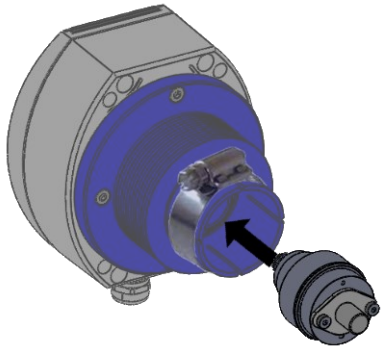
7. If required, assemble the head housing and probe body:

7a. If required, fit sensing module to the head housing;

- Ensure the gasket is in position in the head housing.
- Gently push sensing module to secure in place.

NOTE: The connector is keyed to aid alignment.

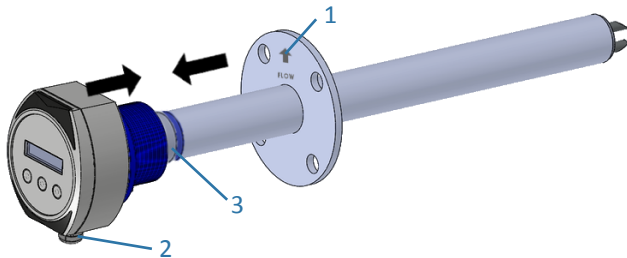
CAUTION: Do NOT force the sensing module otherwise you may damage the sensor and /or housing connectors.



7b. Ensuring clamp (3) is fitted over the head housing shoulder and with the flow direction arrow (1) pointing upwards, carefully slide the probe body into the head housing (cable gland (2) at the base of the housing should face downwards).

CAUTION: Be careful not to damage the sensing module.

NOTE: Ensure the probe is inserted fully (housing shoulder aligns with the indicator line on the probe).

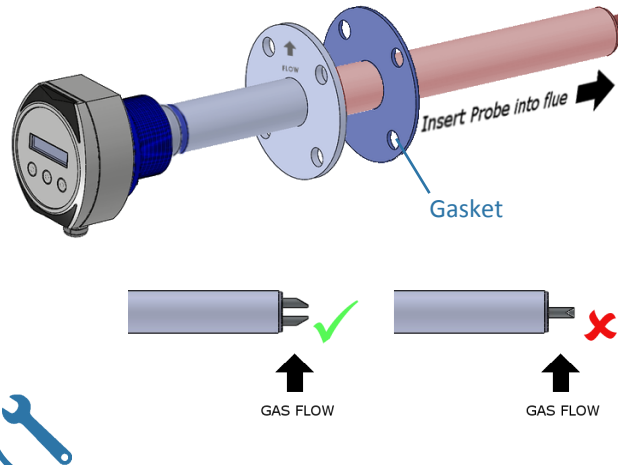


7c. Using a 10mm socket (or spanner) tighten clamp (3) to secure the head housing in position; torque to 5Nm.



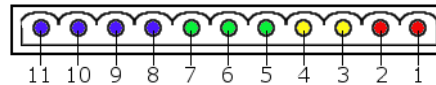
8. With a suitable gasket in place, install the probe assembly into position and secure using the appropriate flange / mounting hardware.

NOTE: Ensure gas flow direction arrow is aligned correctly.



WARNING: Do NOT apply power during installation.

9. Connect power and input/output connections to the controller:



Power Supply

- PIN 1: 24V_{DC}
- PIN 2: 0V

Analogue Output

- PIN 5: Analogue GND
- PIN 6: Analogue Out1
- PIN 7: Not Used

Digital Output

- PIN 3: COM1
- PIN 4: COM2

Relay Output

- PIN 8: Relay 1 In
- PIN 9: Relay 1 Out
- PIN 10: Relay 2 In
- PIN 11: Relay 2 Out

CAUTION: Test the power supply to ensure it is "24V_{DC} ± 10%" before wiring to the probe.

CAUTION: Failure to test the suitability of the power supply BEFORE first power ON could cause irreversible damage to the device.



10. Apply 24V_{DC} to the device.

NOTE: Read the User Guide BEFORE proceeding; the Quick Start Guide (this document) is for reference only.



Further information:

Refer to *UG-003, GAP User Guide* for full details of how to install, configure, calibrate and maintain the device. Refer also to *UG-010, GAP Modbus Register Set*.

Need help? Ask the expert
Tel: +44 (0)1236 459 020
and ask for "Technical"



CAUTION

Do not exceed maximum ratings and ensure sensor(s) are operated in accordance with their requirements. Carefully follow all wiring instructions. Incorrect wiring can cause permanent damage to the device. Zirconium dioxide sensors are damaged by the presence of silicone. Vapours (organic silicone compounds) from RTV rubbers and sealants are known to poison oxygen sensors and MUST be avoided. Do NOT use chemical cleaning agents.

Failure to comply with these instructions may result in product damage.

INFORMATION

As customer applications are outside of SST Sensing Ltd.'s control, the information provided is given without legal responsibility. Customers should test under their own conditions to ensure that the equipment is suitable for their intended application.

For detailed information on the sensor operation refer to *AN0043, ZrO₂ Operating Principle and Construction Guide*.

For technical assistance or advice, please email:
technical@sstsensing.com

NOTE: SST Sensing Ltd. reserves the right to make changes to product specifications without notice or liability. All information is subject to SST Sensing Ltd.'s own data and considered accurate at time of going to print.