



Features & Benefits

- Selectable 0-10Vdc, 0-5Vdc or 4-20mA output
- High stability & reliability
- Long term stability

Technical Overview

The GS-CO-6xx series of Carbon Monoxide sensors are based on tried and tested sensor technology, the new design provides a highly cost-effective answer for monitoring CO, typically for alarm purposes.

NB The sensor is not designed, manufactured or intended for use or re-sale as control or monitoring equipment in environments requiring life safety performance, in which the failure of the sensor could lead directly to death, personal injury, or severe physical or environmental damage. Sontay and its suppliers specifically disclaim any express or implied warranty of fitness for life safety.

Product Codes

GS-CO-622	Duct Carbon Monoxide sensor
GS-CO-633	Plant Carbon Monoxide sensor IP54
GS-CO-635	Plant Carbon Monoxide sensor IP65

Suffixes (add to part code)

-ACT	Active temperature output *
-TR	Custom active temperature output range *
-T	Direct resistive temperature output *

Thermistor types:

A (10K3A1)	B (10K4A1)		
C (20K6A1)			
H (SAT1)	K (STA1)	L (TAC1)	
M (2.2K3A1)	N (3K3A1)		P
(30K6A1)			
Q (50K6A1)	S (SAT2)	T (SAT3)	
W (SIE1)	Y (STA2)	Z (10K NTC)	

Platinum types:

D (PT100a)	E (PT1000a)
-------------------	--------------------

Nickel types:

F (NI1000a)	G (NI1000a/TCR (LAN1))
--------------------	-------------------------------

* Note: Options not available for GS-CO-633 Plant Sensor


Specification

Outputs:	
Voltage	0-10Vdc or 0-5Vdc
Current	4-20mA
(optional -T)	PTC/NTC resistive sensing element
Measurement range:	0 to 160ppm
Power Supply:	
Voltage	12-26Vac or 16-26Vdc @60mA
Ambient:	
Temperature	-10°C to +60°C
RH	0 to 95% RH, non-condensing
Housing:	
Material	Flame retardant ABS
Dimensions	116 x 106 x 52mm
Membrane (Plant types)	PTFE
Probe (GS-CO-622):	
Material	Delrin
Dimensions	215 x 19mm dia.
Protection:	
GS-CO-622	IP54 (Snap-shut lid)
	IP65 (see installation notes)
GS-CO-633	IP54 (see installation notes)
GS-CO-635	IP65 (see installation notes)
Country of origin	UK

The products referred to in this data sheet meet the requirements of EU Directive 2014/30/EU



WEEE Directive:

 At the end of the products useful life please dispose as per the local regulations.
Do not dispose of with normal household waste.
Do not burn.

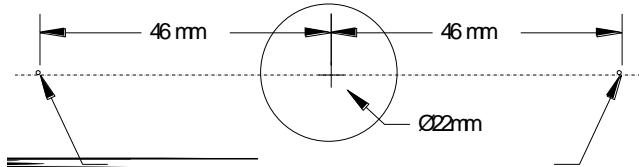
Installation



Antistatic precautions must be observed when handling these sensors. The PCB contains circuitry that can be damaged by static discharge.

Transmitters should only be fitted to a system after airflow calibration has been carried out and preferably following full fan running of at least several days, in order that the main contaminants have been removed from the stagnant system.

1. GS-CO-622 Fit the housing to the duct with appropriate screws.



GS-CO-633 and 635 Select a location on a wall of the controlled space which will give a representative sample of the prevailing condition. Avoid positioning the sensor in direct sunlight, dirt water and weather exposure.

2. Release the snap-fit lid by gently squeezing the locking tab and feed the cable through the waterproof gland and terminate the cores at the terminal block. Leaving some slack inside the unit, tighten the cable gland onto the cable to ensure water tightness.
3. If the sensor is to be mounted outside, it is recommended that the unit be mounted with the cable entry at the bottom. If the cable is fed from above then into the cable gland at the bottom, it is recommended that a rain loop be placed in the cable before entry into the sensor.
4. Set the yellow dip-switches according to output type required. Snap shut the lid after the connections have been made. If IP65 (GS-CO-622 and 635) / IP54 (GS-CO-633) protection is required, secure the lid with two screws provided.
5. It is recommended that screened cable be used and that the screen should be earthed at the controller. Care should be taken not to lay control signal wiring in close proximity to power or other cables which may produce significant electromagnetic noise.
6. Before powering the sensor, ensure that the supply voltage is within the specified tolerances.
Note: When using the sensor with a 4-20mA output, it is important to make all electrical connections before applying the supply voltage. If the sensor is not connected sequence, then you may see a higher reading than expected (can be as much as 55mA).
7. Power the unit, pre-commissioning checks can be made after an hour. Full commissioning should not be carried out for a minimum of 24 hours with the unit in clean air free of contaminates. This will allow the electronics and sensor time to stabilise.

Connections

Left Hand terminal Block:

24V	Supply + 24Vac or Vdc
GND	Supply 0V
OP1	Temperature output (see J11 settings)
OP2	Not used
GND	Common 0v
OP3	CO Output
GND	Common 0V
OVRD	Not used

Right Hand Terminal Block (if -T option is selected);

T2	Direct thermistor output only (other half of OP1 if J11 is set to T)
MS1	Not used
MS2	Not used
P5	Not used
P6	Not used
P7	Not used
FS2	Not used
FS1	Not used

Voltage output Nominal voltage 24Vac/dc.

Current output Loop powered (no 0V connection) 24Vdc supply ONLY.
3-wire (0V connection) 24Vac/dc
Please see note in section 7 on previous page regarding connections.

If using the -LCD option, when in loop powered mode the back light will not be lit. The transmitter will require a 0V connection for the back light to work (3-wire).

Jumper Settings

Main board

J1, J2, J3

These set the outputs to either voltage of current, V for voltage, I for current

J10

If the outputs are set to voltage (jumpers J1, J2 & J3 in the "V" position), the output can be set to either 0-10Vdc or 0-5Vdc.

J11

Selects either active temperature output (current or voltage) or direct thermistor.

OP1 = active temperature output

T = direct thermistor

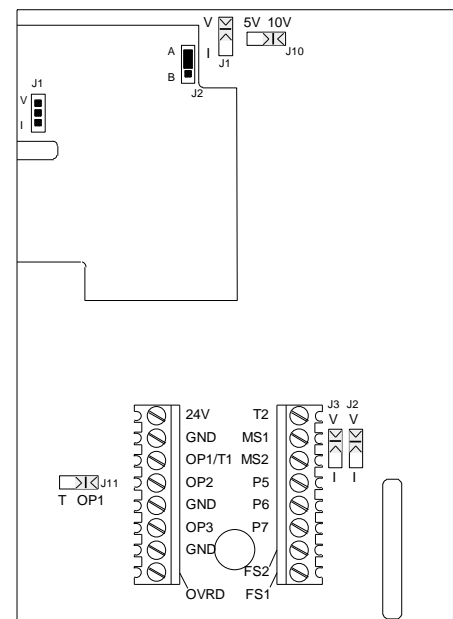
CO board

J1

This sets the output to either voltage of current:
V for voltage, I for current

J2

Default position "A" no not remove or change.



Whilst every effort has been made to ensure the accuracy of this specification, Sontay cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

Tel: +44 (0)1732 861200 - E-mail: sales@sontay.com - Web: www.sontay.com

© 2017 Sontay Limited. All rights reserved