



Features & Benefits

- 4-20mA output
- Wide supply voltage range, 10 to 30Vdc
- Loop powered
- Tamperproof lid

Technical Overview

The GS-S-x series of wall mounting Nitrogen Dioxide (NO₂), Oxygen (O₂), Sulphur Dioxide (SO₂) and Carbon Monoxide (CO) sensors are a 4-20mA current loop powered sensors with various sensing ranges of gas concentrations.

The sensor has a normal working life of 2 years in air, and needs to be powered up within 6 months of purchase.

Product Codes

GS-S-ND10	Nitrogen Dioxide Sensor 0 to 10ppm
GS-S-OX25	Oxygen Sensor 15 to 25%
GS-S-SD20	Sulphur Dioxide Sensor 0 to 20ppm
GS-S-CM100	0-100ppm Carbon Monoxide sensor
GS-S-CM1000	0-1000ppm Carbon Monoxide sensor



The GS-S range of gas transmitters are designed for monitoring purposes, and should not be used in safety applications.

Specification

Output	4-20mA
Supply voltage	10 to 30Vdc
Resolution:	
GS-S-ND10	<0.02ppm (33Ω load resistor)
GS-S-SD20	<0.1ppm
GS-S-CM	<0.5ppm
Sensitivity drift:	
GS-S-CM	<3% signal loss/year
Others	<2% signal loss/year
Temperature range	-30 to +50°C
Pressure range	80 to 120kPa (.32 to .48" w/c)
RH range	15 to 90%RH non-condensing
Element life	2 years
(from powering the device)	
Response times:	
GS-S-ND10	t90 (s) from zero to 10ppm NO ₂ <60
GS-S-OX25	t90 (s) from 20.9% to 0% O ₂ <15
GS-S-SD20	t90 (s) from zero to 20ppm NO ₂ <30
GS-S-CM	t90 (s) from zero to 400ppm CO <30
Zero current:	
GS-S-ND10	<±0.2ppm equ. in zero air
GS-S-OX25	<2mA in N ₂
GS-S-SD20	<±0.5ppm equ. in zero air
GS-S-CM	< ±2ppm equ. in zero air
Storage	6 months @ 3 to 20°C
(from date of purchase)	
Protection	IP65 (housing only, suitable for internal mounting only)
Dimensions	55mm x 90mm dia.
Country of origin	UK

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.



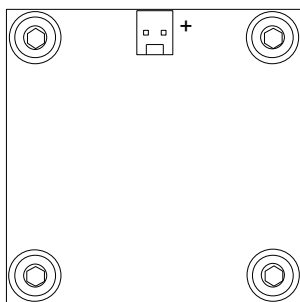
The products referred to in this data sheet meet the requirements of EU Directive 2014/30/EU

Installation

1. Select a location which will give a representative sample of the prevailing space condition. The GS-S is not suitable for external mounting.
Avoid mounting the sensor in direct sunlight.
2. It is recommended that the unit be mounted with the cable entry at the bottom.
3. Remove the front cover by removing the tamperproof screw and twist the lid and separating from the main body.
4. Using the base of the housing as a template mark the hole centres. Drill two pilot holes at 85mm centres in the surface to which the sensor is to be mounted.
5. Fix the sensor to the wall using appropriate screws.
6. Feed the cable through the gland and terminate. Leaving some slack inside the housing, tighten the cable gland onto the cable.
7. Replace the lid after the electrical connections have been made, and re-fit the tamperproof screw.

Connections

Red: 10 to 30Vdc
Black: 4-20mA output



These gas sensors have an operating life (once powered) of 2 years, after this time they should be replaced. A suitable maintenance plan should be implemented to carry out an exchange at the end of the sensors operating life.

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.

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