

Chemical SO₂ (3-Wired Type) Transmitter SO₂-CD300(LG)



SO₂-CD300 (G)-HC



**SO₂-CD300(LG)
(with LCD display)**

General

SO₂-CD300(LG) is a 3wired Electro-Chemical type transmitter which can detect high concentration 0~20 ppm SO₂ gas.

Features

- 15years know-how based multiplied compensation algorithms keep accuracy and long-term stabilization throughout full operating Temperature and Concentration range.
- 4~20mA (default) 0~20mA,0~10V,2~10V is selctable with switch (0~5V/1~5V is orderable).
- All units verification in factory before delivery.
- Easier mgmt with auto-Zero calibration mode
- Size : 124 x 70 x 43 (mm), 110g, 120g : LCD(o)

※ Design or Specification of SO₂-CD300(LG) Series might be changed without prior notice.

SO2-CD300(LG)

Application

Manhole, safety inspection, leak detection, industrial sites, livestock houses, pig houses, poultry farms, portable SO2 gas detector, etc.

General Performance

Operating Temperature range

-10 ~ 50°C

Operating Humidity range

15 ~ 90% RH (Non-condensing)

('G' option: operatable 80% RH or more with Non-Condensing and protect from rustness)

Long Time Output Drift

<2% signal/month

Storage Temperature

5°C ~20°C (Higher temp. shorten sensor life.)

Measurement

Sensing Method

Eletro-Chemical type to sense SO2 gas

Measurement Range : 0~20ppm

Maximum Overload : 100ppm

Accuracy : ±3% of F.S

Response Time : T90 : < 30sec, T60 : < 9sec

Sampling Interval : 1 second

life Cycle : 2 years.

Electrical Data

Input Power

24VDC± 20%, (3-Wired)

Power consumption

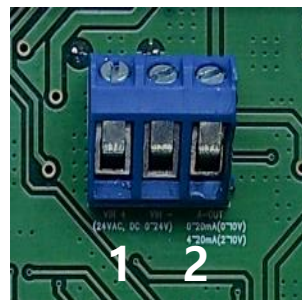
0.7 Watt

Wiring Method

1. VIN+: 24VDC+

2. VIN-: Common-GND

3. A-OUT: Output Signal (Voltage or Current)



Wire connector.

※Warning : Please careful not to wire power cable into signal output position of terminal block, which leads to damage sensors .

Dimensions (unit : mm)



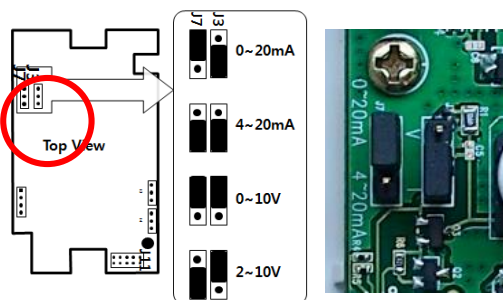
Output Signals



4 ~ 20mA is default (2 ~ 10VDC or 0 ~ 20mA or 0 ~ 10VDC is selectable with jumper setting change)

■ Jumper A (J7, J3) : Set Voltage/Current

- [J7,J3] Output Mode

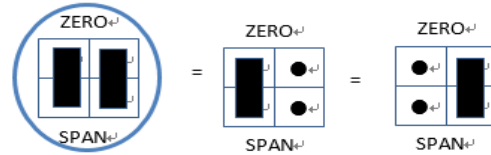


Ex) 0 ~ 20mA setting.



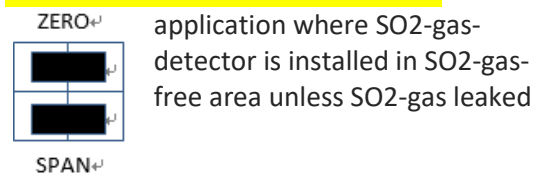
Operation Mode selection

Normal mode-#1 is for mobile-SO₂-meter or and fixed type SO₂-meter installed where



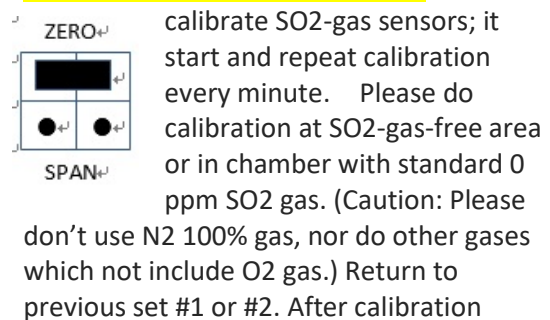
always 0.5ppm or more of SO₂ gas existing environment.

Automatic Zero Calibration mode-#2 is for



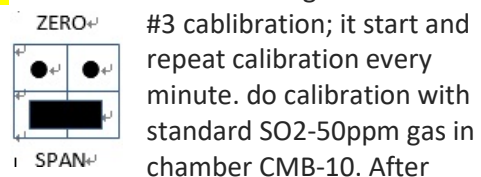
application where SO₂-gas-detector is installed in SO₂-gas-free area unless SO₂-gas leaked

Manual Zero Calibration mode-#3 is used to



calibrate SO₂-gas sensors; it start and repeat calibration every minute. Please do calibration at SO₂-gas-free area or in chamber with standard 0 ppm SO₂ gas. (Caution: Please don't use N₂ 100% gas, nor do other gases which not include O₂ gas.) Return to previous set #1 or #2. After calibration

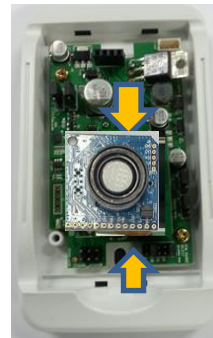
Manual SPAN(10ppm F.S.) Calibration mode-#4 is used to calibrate SO₂-gas sensors after



#3 cablibration; it start and repeat calibration every minute. do calibration with standard SO₂-50ppm gas in chamber CMB-10. After calibration, return to previous set #1 or #2.

Cautions on Installation

- I. Chemical sensors should be kept 5~20°C and better to use in 3 months from purchase not to shorten their lifecycle.
- II. Due to SO₂ gas' heavy specific gravity, sensor's low position on installation is recommended as default unless convection current by heater or air-conditioner.
- III. The sensors are designed to keep lifecycle when installed normal living condition unless effected physically, mechanically or chemically. Sensor-detection part or PCB part should be kept from dirties, water or oil spraying which cause damage and keep Sensors away from the solvent or high concentration organic gas existence or continuous vibration, or impulse from.
- IV. Power should be selected within tolerance and wired into right position, Sensor get damaged when 24V power is inserted into output.
- V. Chemical sensor modules' installation or uninstallation should be done carefully not to pluck away sensor modules; Please grip the upside and downside of PCB. arrow-direction of picture, between 4-pins and 10pins connectors on unplugging sensor-module from main-board little by little, left and right in turn. Vice versa on plugging the sensor-module into main-board.
- VI. Please install or keep sensors away from the places where electro-static or induced electro-magnetic field exists.
- VII. Please make sure to use air-based standard gas on Test Sensor performance.
- VIII. The sensors components should be departed or replaced, or manipulated unless requested or agree by vendor, Please don't touch electrolyte leaked from sensor when it is damaged or broken. Wash out skins with running water when wet by leaked electrolyte.



Cross Connectivity

CO 100 ppm	0.0 ppm
H2S 15 ppm	<0.1 ppm
NO 25 ppm	-5.5 ppm
NO 50 ppm	0.1 ppm