

CLS-WCO Wall Mount Carbon Monoxide (CO) Transmitter

Applications & Features

- It's necessary to control the ventilation of car park and vehicle maintenance and test work shop according to many building HVAC regulations. Considering of energy efficiency, demand controlled ventilation (DCV) is recommended to provide enough fresh air according to CO concentration and temperature. CLS-WCO is designed for these applications. It can effectively control the ventilation system to safety and energy saving operations
- Better than most other similar sensors with 1~3 years life span, it gives more than 7~10 years life span to protect customer's long term investment
- Better than most other similar sensors which maybe need recalibration every 6~12 months, it only need periodical recalibration as long as 3~5 years or more, maintain 5% accuracy
- Digital technology applied, multiple outputs optional, over voltage and reverse polarity protection, high reliability and anti-interference capability
- LED indication, with IP33 protection housing

Specifications

Sensor: Electrochemical, with 7~10 years life span

Range: 0~100ppm, or others

Accuracy: $\pm 5\%$ FS

Sampling Methods: Diffusion

Response Time: ≤ 60 s

Warm up time: ≤ 2 mins

Output Load: $\leq 500\Omega$ (current), $\geq 2k\Omega$ (voltage)

Power: Current: 21~35VDC ($R_L=500\Omega$); 15~35VDC ($R_L=100\Omega$)
Voltage: 16~28VAC/16~35VDC

Output: 4~20mA (2 wires), 0~10VDC or RS485/Modbus

Work environment: 0~50°C, 0~90%RH (Non- cond.)

Storage temperature: -5~55°C

Housing: fireproof ABS+PC, UL94V-0

Protection: IP33

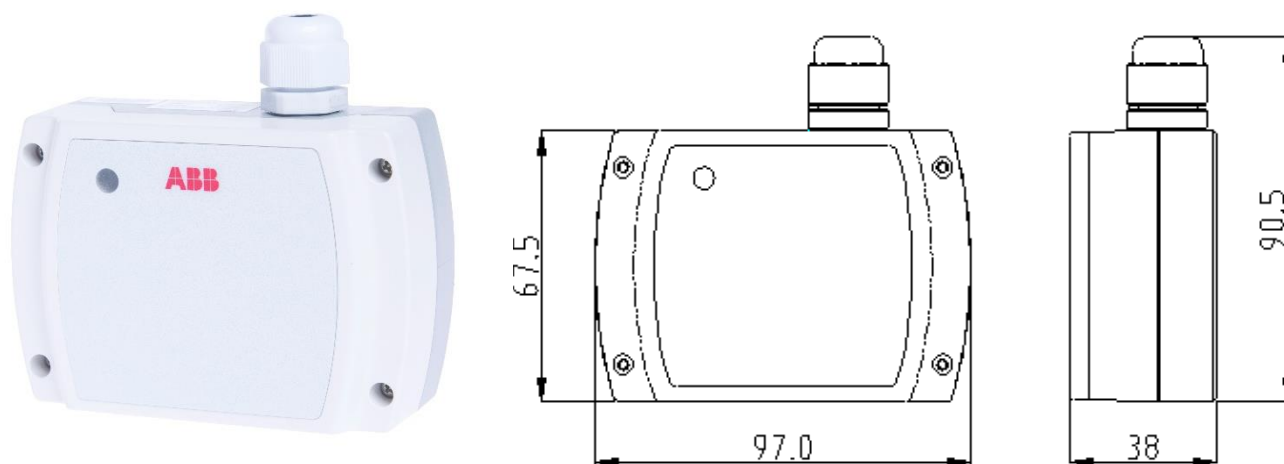
Weight: 150g

Approval: CE

Selection table

ABB series	Description
CLS-WCO-V1	Wall Mount Carbon Monoxide (CO) Transmitter, 0~10V, 0~200ppm, $\pm 5\%$ FS, IP33
CLS-WCO-A1	Wall Mount Carbon Monoxide (CO) Transmitter, 4~20mA, 0~200ppm, $\pm 5\%$ FS, IP33
CLS-WCO-M1	Wall Mount Carbon Monoxide (CO) Transmitter, RS485, 0~200ppm, $\pm 5\%$ FS, IP33

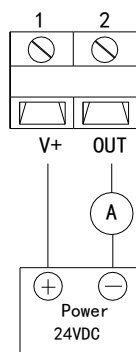
Appearance & size



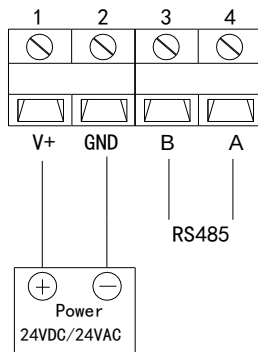
Connection

Different models have different electrical terminals. Please wire specific model according to the wiring diagram inside the front cover.

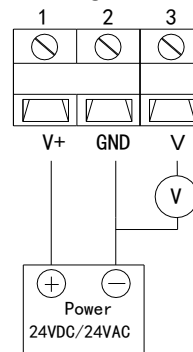
- Current 4-20mA



- RS485/MODBUS



- Voltage 0-10V



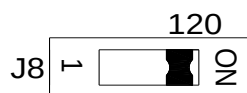
RS485/Modbus communication refer to “CLS-WCO series carbon monoxide transmitter Modbus communication instruction”.

RS485 terminal resistance jumper J8 description:

Terminal resistance 120 Ω : the jumper J8 is at position “on”

Terminal resistance 0 Ω (None): the jumper J8 is at position “off”

As the figure:



Terminal resistance 120 Ω



Terminal resistance none

Installation

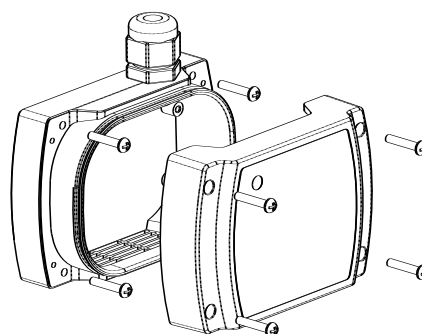
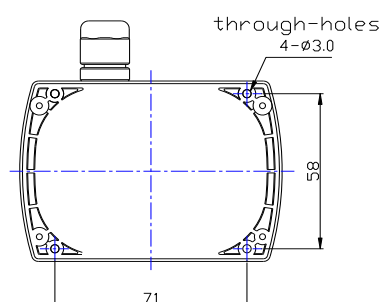


Figure 1

Figure 2

- The installation site should be far away from heater, cooler, fan or other humidity and ventilation sources. Figure 1 is bottom view of the product, for opening the 4 holes on the mounting surface. The height should be about 1.2-1.8 m from the ground.
- It should be installed vertically on the wall, with the outlet gland upwards (usually the cable in the parking lot is laid down from the roof), and the sampling holes downwards (because the exhaust gas from automobiles is diffusing from ground to roof), shown as figure 2. Open the front cover and screw the base on the mounting surface with 4 mounting screws.
- Feed the cable into the base through the cable gland, and ensure it is completely air-tighten (there is a seal ring between the gland and the base). Finish wiring according to the wiring diagram. Restore the front cover and make sure it is completely air-tighten with the base (there is a seal ring between the cover and the base). This the housing could meet up to IP65 protection rate except for the bottom IP33 holes for gas diffusion sampling. The overall protection rate for the housing is IP33.

Attention

- The product is not suitable for high SO₂ concentration environment.
- It should be power OFF during installing and wiring. It is recommended to power the unit with independent transformer (24VAC) or DC power supply (24VDC). When using the same power supply with other equipments such as controllers, transmitters or actuator, please make sure the terminals 24V and GND are connected correctly. Otherwise, it will perhaps reduce serious damages.

Maintenance

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Scan the QR code to go ABB official web page and get more product info



Warning! Installation by person with electrotechnical expertise only.

Warnung! Installation nur durch elektrotechnische Fachkraft.

Avvertenza! Fare installare solo da un elettricista qualificato.

Avertissement! Installation uniquement par des personnes qualifiées en électrotechnique.

¡Advertencia! La instalación deberá ser realizada únicamente por electricistas especializados.