

EasyLogic™ Sensors

CO Transmitters

CP-AI-CO-SE



Product Description

The CP-AI-CO-SE is a wall-mount carbon monoxide (CO) transmitter designed for environmental monitoring and HVAC control applications. Each device features an active sensor that converts a measurement into an analog output: 4 to 20 mA or 0 to 10 Vdc.

This sensor is ideal for:

- Parking garage ventilation
- Air quality compliance
- Mechanical rooms

Features

- Electrochemical sensor
- Range: 0 to 250 PPM
- Accuracy: $\pm 5\%$ FS at 25 °C
- Selectable output: 4 to 20mA or 0 to 10V
- Supports DC and AC power supplies
- Wall mounted
- Three colored LEDs – green, yellow and red for easy status viewing
- Key component for the LEED green building program, WELL Building Standard and RESET Standard
- Compliance with ASHRAE standards for environmental control and indoor air quality

Available Products

Part Number	Description
CP-AI-CO-SE	Wall-mounted CO transmitter, $\pm 5\%$ FS at 25 °C

Specifications

General	
Operating voltage	24VAC $\pm 10\%$ or 12-30VDC*
Frequency	50/60Hz
Power consumption	$\leq 1\text{VA}$
CO Sensor	
Sensor type	Electromechanical
Measuring range	0 to 250ppm
Accuracy	$\pm 5\%$ FS at 25 °C
Repeatability	$\pm 2\%$
Analog output	DC power supply: 0 to 10V/4 to 20mA AC power supply: 0 to 10V
Output load	Min. load resistance for 0 to 10V operation: 10k Ω Min. input voltage for 4 to 20mA operation: 250 Ω loop=12VDC; 500 Ω loop=21.6VDC
Response time	$\leq 60\text{s}$ T90
LED indicator	3 LEDs
Calibration	Factory calibration
Long term stability	<5% per year (typical)
Environment	
Operating temperature	-10 to 50 °C
Operating humidity	15 to 95% RH (non-condensing)
Storage temperature	-20 to 50 °C**
Storage humidity	15 to 95% RH (non-condensing)
IP rating	IP30
Housing material	PC+ABS, UL94-V0
Regulatory Information	
Agency approvals	CE: EMC (EN61326-1) Green Premium EU ROHS, China ROHS, REACH, RCM (Australia), UKCA (UK)
Weight	
Including packaging	130g

*Class 2. Connect all devices with proper polarity; AC power supply only supports 0 to 10V output.

**It is recommended to store sensors in a cool location (0 to 20 °C) with normal ambient humidity.

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Safety Information

Important Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special message may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

NOTICE
NOTICE is used to address practices not related to physical injury.

 WARNING
WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Please Note

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has the skills and knowledge related to the construction, installation and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.


The product is not intended for life or safety applications.

Schneider Electric is not liable for any damages or injuries resulting from improper installation, misuse, or neglect of the CO sensor. It is the responsibility of the user to follow all installation, and operation instructions provided in this guide.

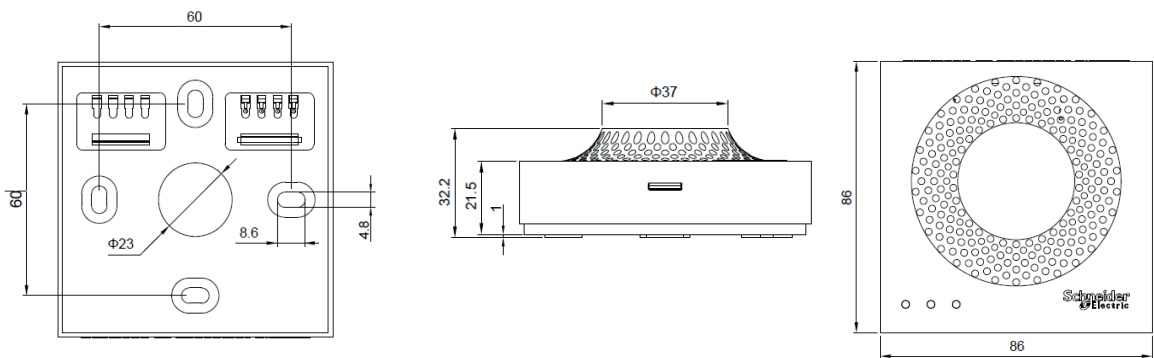
The CO sensor is designed to comply with relevant safety and performance standards. However, the user is responsible for adhering to local regulations and requirements regarding CO detection and safety measures.

Turn off all power supplying equipment before working on it.

Products rated only for basic insulation must be installed on insulated conductors.

 WARNING
LOSS OF CONTROL <ul style="list-style-type: none">• Users are advised to exercise caution and not solely rely on the sensor for their safety.• Assure that the system will reach a safe state during and after a control path failure.• Separate or redundant control paths must be provided for critical control functions.• Test the effect of transmission delays or failures of communication links.• Each implementation of equipment using communication links must be individually and thoroughly tested for proper operation before placing it in service. Failure to follow these instructions could cause injury, death or equipment damage.

Dimensions (mm)



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Installation

1. Disconnect power prior to installation.
2. Remove the cover from the base at the bottom of the device.
3. Position the sensor base vertically on the wall 1.3m to 1.5m above the floor. Locate away from windows, vents and other sources of draft.
4. Pull the cable through the hole in the backplate.
5. Mount the backplate onto the wall using the screws provided.
6. Connect the wires to the screw terminals. Do not over-tighten the screws.
7. Replace the cover.

Regular cleaning: Gently clean the sensor with a soft cloth to remove dust or dirt.

Regular obstruction check: Ensure the sensor's vents are not obstructed.

Wiring

NOTICE

PRODUCT DAMAGE DUE TO INCORRECT POWER POLARITY

- Power polarity must be observed with a DC supply as well as an AC supply. If the power supply is connected incorrectly, this can lead to the destruction of the sensor.

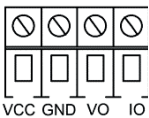
Failure to follow these instructions may result in product damage.

NOTICE

INACCURATE READINGS

- Do not run wiring in the same conduit as AC power wiring. Close proximity to AC power may influence accuracy.
- Do not install the product in hazardous or classified locations.

Failure to follow these instructions can result in reduced accuracy.



Power supply and analog output:

VCC	24VDC + or 24VAC L
GND	Ground (-)
VO	0 to 10V output
IO	4 to 20mA output

LEDs

The LED indicators allow determination of device status at a glance. Dead zone is 5ppm.

LED Color	Status
Green	Flashes 3 times at initial device power-up On solid when CO <35ppm
Yellow	Flashes 3 times at initial device power-up On solid when CO = 35 to 180 ppm Flashes continuously if internal sensor issue is detected
Red	Flashes 3 times at initial device power-up On solid when CO = 180 to 250 ppm Flashes continuously if sensor reading is over range

Cyber Security

At Schneider Electric, we have always considered cyber security as a key requirement and are committed to providing more reliable, stable and secure products to minimize potential cyber risks and better protect customer life, property and the environment.

Cybersecurity aims to protect your systems, communications networks, devices, etc., from possible attacks such as destruction, data tampering, or disclosure of confidential information. In addition to the recommendations in this article, it is strongly recommended that you follow the Schneider Electric Defense in Depth approach to cybersecurity. In our system technical note "How to reduce vulnerability to cyber attacks?" This method is described in In addition, you can find more useful resources and up-to-date information at Schneider Electric's Cybersecurity Support Portal.

Communication Security

Communication port used for Schneider Electric.

Security Disposal

When equipment needs to be disposed, it is recommended to destroy it through a safe channel to ensure that the equipment is not re-deployed to your operational systems or illegally exploited.

Cybersecurity Vulnerability/Incidents

You can access the Schneider Electric Cybersecurity Support Portal (<https://www.se.com/ww/en/work/support/cybersecurity/vulnerability-policy.jsp>) to check the vulnerability management policy or report potential cybersecurity vulnerability or incidents.

China RoHS Compliance Information
Environment-Friendly Use Period (EFUP) Table

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑料 Plastic parts	O	O	O	O	O	O
电子元器件 Electronic	X	O	O	O	O	O
金属部件 Metal parts	X	O	O	O	O	O
触点 Electrical contacts	O	O	O	O	O	O
线缆和线缆附件 Cables & cabling accessories	O	O	O	O	O	O

本表格依据SJ/T11364的规定编制
O: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。
本表中标有“X”的所有部件均符合欧盟RoHS法规
This table is made according to SJ/T 11364.
O: Indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.
X: Indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572.
All the parts with “X” comply with EU ROHS.