

Carbon Monoxide (CO) Series

Operating Instructions

1.0 Document Information

This manual complements the technical information in the product datasheet CO-B-22.04S, which can be found on our website, www.bluetechcorp.com.

2.0 Basic Safety Instruction

2.1 Designated Use

This CO sensor is intended for measurement of the Carbon Monoxide value in specific areas.

Use of the device for any purpose other than that described may pose a threat to people's safety and/ or of the measurement system and is therefore not permitted.

The manufacturer is not liable for damage caused by improper or non-designated use.

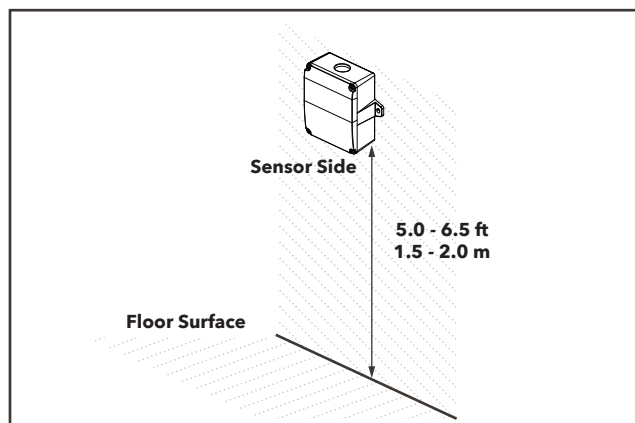
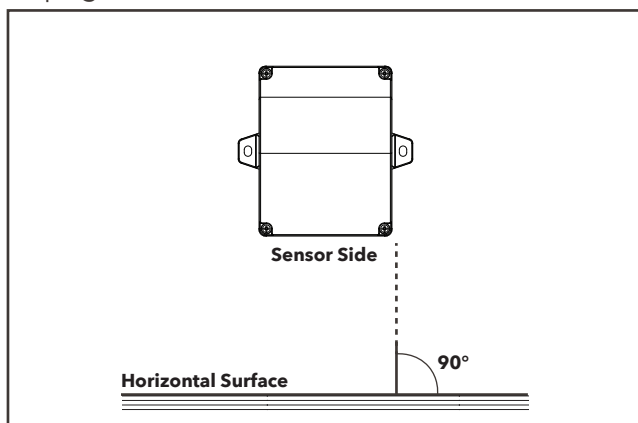
3.0 Installation

3.1 For Space Mount Model

Do not install upside-down!

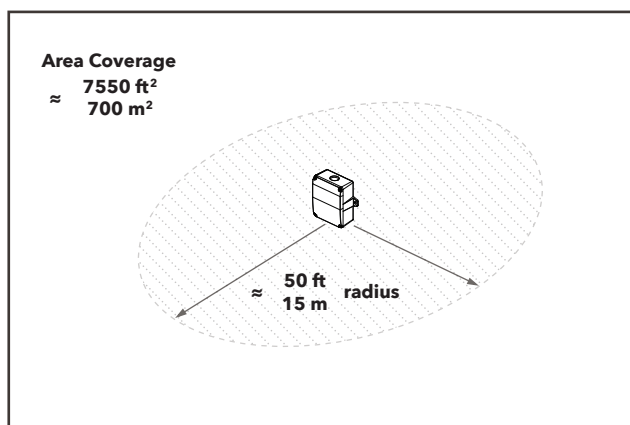
The position of the device is recommended to be 90° upright from the horizontal.

This device should be installed 4.9 - 6.5 ft (1.5 - 2.0 m) from the floor of the area to be monitored.



! Avoid mounting the sensor in areas with frequent air disturbances, high vibrations and sudden temperature changes.

Sensing Area Coverage

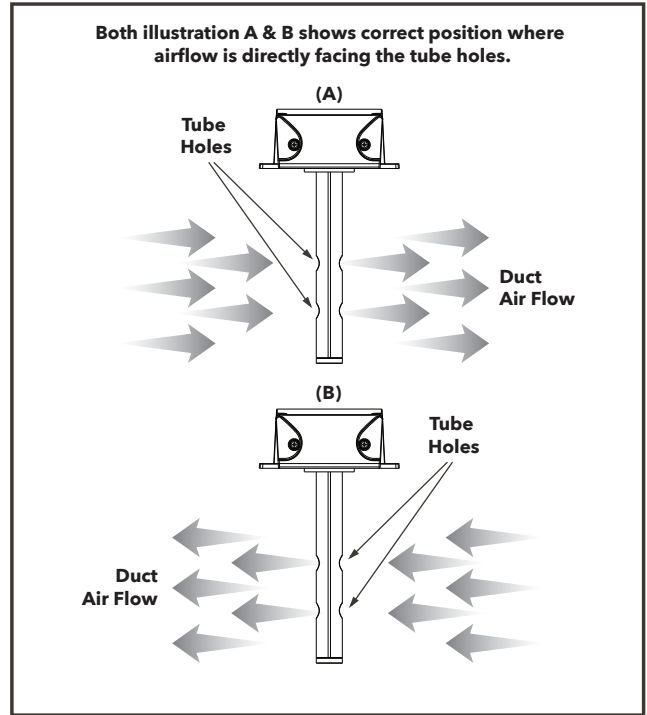
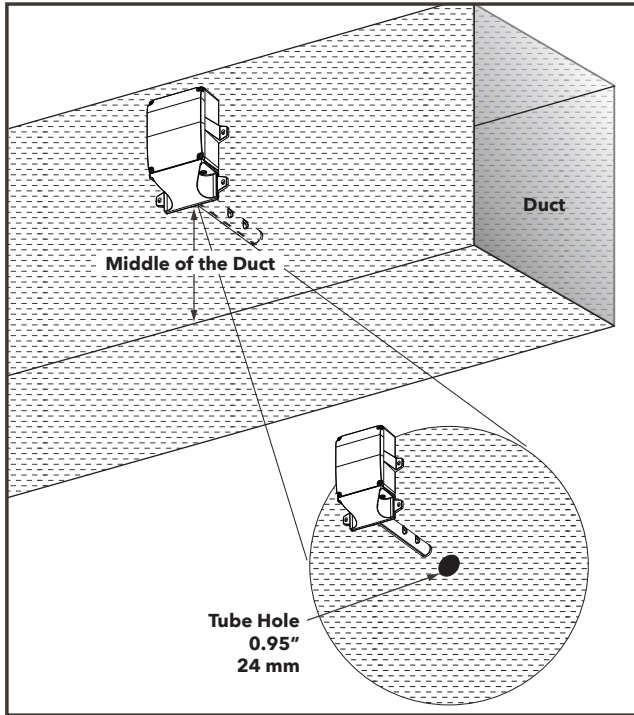


Note: Drawing above is for graphical representation only. Actual measurements should be verified during installation.

3.2 For Duct Mount Model

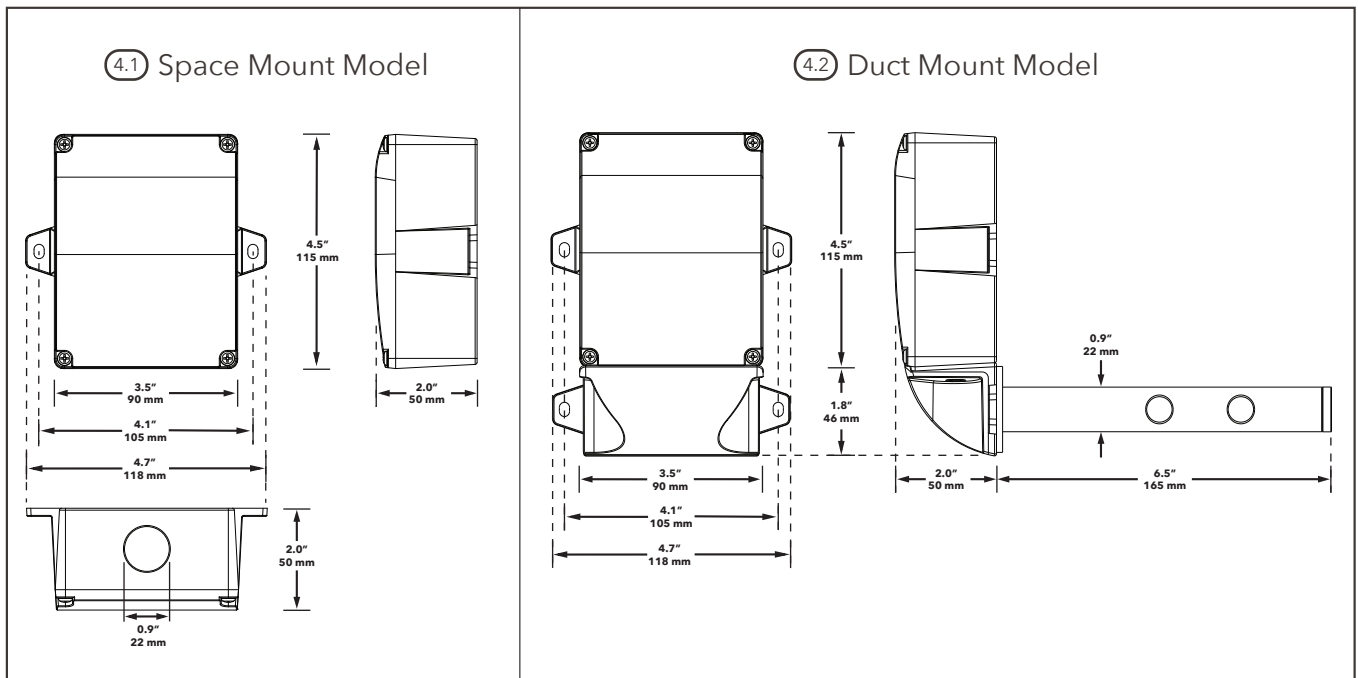
Drill a hole in the middle of the duct to insert the tube section of the CO device. The CO device can be placed on top or either side of the duct only. Avoid putting the device at the bottom to prevent the accumulation of dirt over time.

Ensure the sensor is positioned so that the airflow is directly facing the inlet holes of the duct mount accessory. See illustrations below.



- ⚠ Avoid mounting the device near turns in the duct lines or areas with high vibrations and sudden temperature changes. Place the device within the straight section of the duct and away from any turns for more consistent airflow.

4.0 Device Dimensions



Note: Drawing above is for graphical representation only. Actual measurements should be verified during installation.

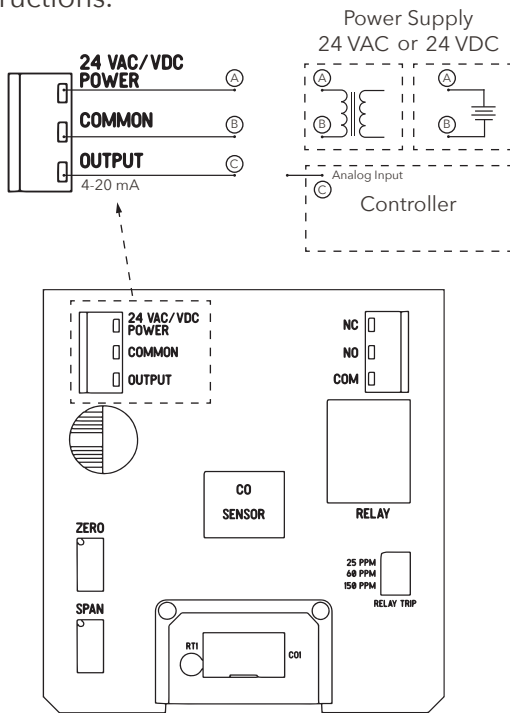
5.0 Electrical Connection

5.1 Supply Voltage

! WARNING

Supply voltage may be connected!
Risk of electric shock!

- When using the measuring device, installation must comply with the corresponding national standards and regulations as well as these Safety Instructions.



5.2 Analog Output

- The 4-20 mA is available in the output terminal with respect to common and is proportional to 0-300 PPM range.
- The signal is generated by the device itself and does not require to be connected to a loop power supply.

! Device could be damaged!

DO NOT connect power to the analog output signal.

5.3 Relay Output

- The relay is in Form-C configuration (NO, NC, COM), 10 A, 277 VAC rating.
- Relay terminals are isolated from the board power supply; and relay will connect COM to either NC or NO terminal.
- Relay trip points can be adjusted through the jumper selection on the circuit board (Relay Trip). Choose between 25, 60 or 150 PPM which can be used for triggering fans or area status monitoring and alarms.

5.4 Cable Specification

- Use 22 AWG wire for all connections, preferably twisted, screened cables.
- Do not locate the device wires in the same conduit with inductive load wiring such as motor wiring.

6.0 Commissioning

6.1 Start-up

Verify that the device is correctly wired according to the wiring diagrams and all secured. Once verified, apply power accordingly.

6.2 Operation

The CO sensor device, once in operation, will continuously measure the carbon monoxide concentration in the surrounding air and provide an output signal of 4-20 mA, which is linear to the value range of 0 to 300 PPM. An optional relay can provide a digital signal according to the selected trip relay setting on the circuit board. If the CO concentration value exceeds the trip relay setting, then the relay will be triggered. The relay will remain activated until the CO level drops below the trip level hysteresis (hysteresis is 3%).



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