

QUICK START GUIDE



CO₂ Sensors

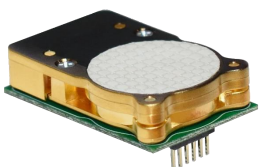
CozIR[®], ExplorIR[®] and SprintIR[®] Ranges

1. Unpack the CO₂ sensor.



Always handle the sensor using the correct ESD handling precautions.

CozIR-LP—Low Profile



CozIR-A—Ambient



ExplorIR—M



ExplorIR—W



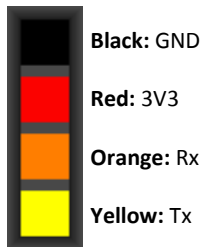
SprintIR—6S



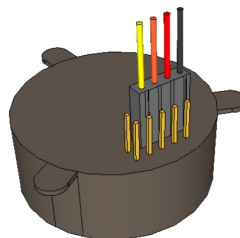
SprintIR—W



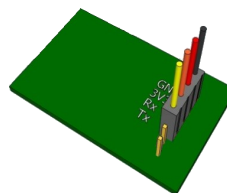
2. Communication to and from the CO₂ sensor is via serial connection. The recommended supply voltage is 3.3V_{DC}. For all sensors, only GND, 3V3, Rx and Tx are required for bi-directions serial connection. All other pins should be left unconnected.



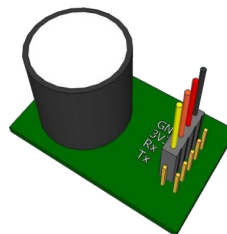
CozIR-A—Ambient



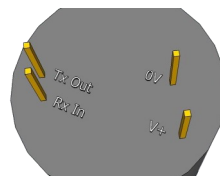
CozIR-LP—Low Profile



ExplorIR—W and SprintIR—W

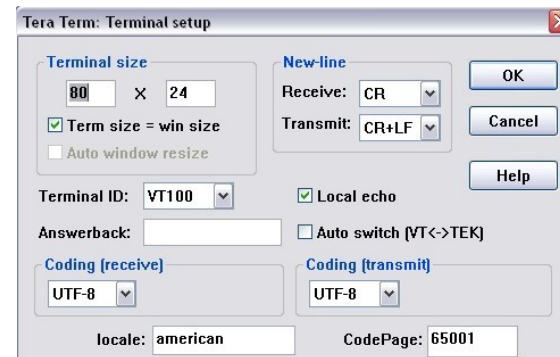
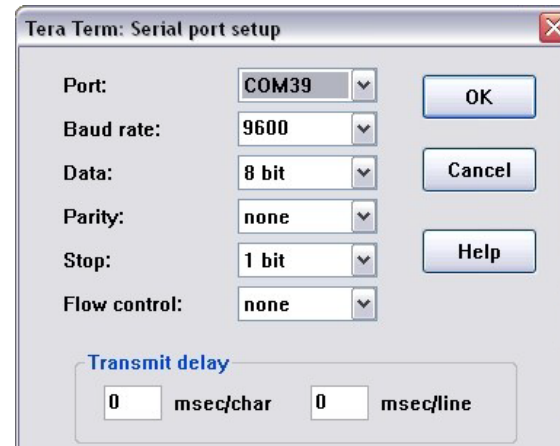
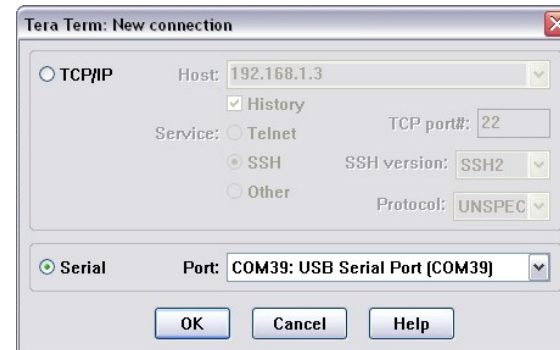


ExplorIR—M and SprintIR-6S



3a. Connect the sensor to a laptop or PC.

3b. Establish communications with the CO₂ sensor via a Terminal type program; SST recommend using Tera Term. Refer to setup parameters shown below:



4a. The output from the CO₂ sensor begins to stream data.

NOTE: Factory default is Average and Raw CO₂ values:

- Z = Average CO₂
- z = Raw CO₂

4b. Leave the CO₂ sensor in fresh air for 5 minutes.

4c. Press “G”, then “Enter” to initiate calibration in fresh air.

NOTE: Upper-case “G”.

Setup and calibration in fresh air is now complete.



NOTE: Read the User Guide BEFORE proceeding. Quick Start Guide (this document) is for reference only.

Command Set:

Command	Action
K 0	Stop streaming data
K 1	Start streaming data
K 2	Polling Mode: The sensor will only respond to a key press or command. For example pressing “z” then “Enter” will return the current CO ₂ value.
G	Calibrates the sensor in fresh air; assumed to be 445ppm.
M 6	Returns the sensor to outputting factory default values; namely Average CO ₂ and Raw CO ₂ readings.

CAUTION

Do not exceed maximum ratings and ensure sensor(s) are operated in accordance with their requirements. Carefully follow all wiring instructions. Incorrect wiring can cause permanent damage to the device. Do NOT use chemical cleaning agents.

Failure to comply with these instructions may result in product damage.

INFORMATION

As customer applications are outside of SST Sensing Ltd.'s control, the information provided is given without legal responsibility. Customers should test under their own conditions to ensure that the equipment is suitable for their intended application.

For technical assistance or advice, please email:
technical@sstsensing.com

NOTE: SST Sensing Ltd. reserves the right to make changes to product specifications without notice or liability. All information is subject to SST Sensing Ltd.'s own data and considered accurate at time of going to print.

FAQs:

Q1: How do I connect to my CO₂ sensor?

A1: A CO₂ Sensor Evaluation Kit can be purchased from SST. The kit includes a USB to TTL Serial cable, sensor pin adaptor(s) and software.

Q2: How does the auto-calibration function work?

A2: The auto calibration routine looks to see the lowest CO₂ value that the sensor has experienced during its power on period. This value is assumed to be the global background level of 400ppm. The typical calibration period of 8 days is designed to include a weekend, when buildings are often left unoccupied. This ensures that the CO₂ level inside the office has the chance to drop to outside levels. When the calibration timer expires, the sensor adjusts its zero point so that it would have read 400ppm when it reads the lowest CO₂ value.

Please note, the auto calibration target of 400ppm is user configurable. If the application is in an environment that will never experience outside levels of CO₂, or another fixed level of CO₂ level that you can input manually, then it is NOT recommended to use auto calibration.

For example, auto calibration would be unsuitable for a building that is continuously occupied. There are other methods of calibration available if auto calibration is unsuitable.

Please contact SST and our engineering team will advise the best solution for your specific application.

Need help? Ask the expert
Tel: +44 (0)1236 459 020
and ask for “Technical”

