



TLD1-CO₂-TT-MOD



- 24V AC /DC supply voltage
- Three colour LCD backlight indicating ventilation requirement based on CO₂ measurement
- High accuracy temperature sensor
- Non dispersive infrared sensing technology
- Two analogue outputs (0 - 10VDC or 2 - 10VDC - selectable by jumper)
- Wall mounted
- Suitable for airports, train stations, shopping centres, offices, classrooms etc.

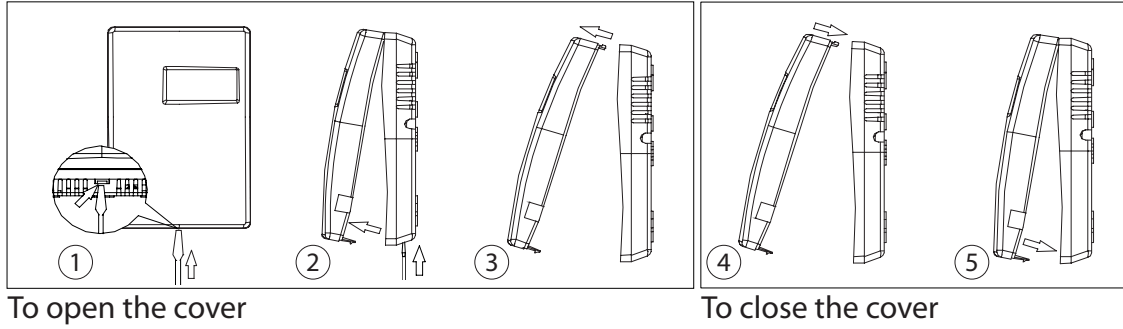
Specification

Gas detected	Carbon dioxide (CO ₂)
Sensing element	Non-dispersive infrared detector (NDIR)
Stability	< 2% of FS over life of sensor (15 years typical)
Calibration interval	ABC logic self calibration algorithm
Response time	< 2 minutes for 90% step change
Warm up time	24 hours (first time), 5 minutes (operation)
CO ₂ measuring range	0 ~ 2,000ppm
CO ₂ accuracy @ 25°C	± 30ppm + 3% of reading
Temperature measuring range	-20 ~ 60°C
Temperature accuracy	± 0.4°C
Power supply	24VAC/24VDC
Consumption	1.8W max.; 1.2W average
Analogue outputs	Two analogue outputs (CO ₂ and temperature) - 0 - 10VDC or 2 - 10VDC (selectable via jumper)
RS485 interface	RS-485 with Modbus protocol, 19,200bps rate, 15KV antistatic protection, independant base address
Operating conditions	0 ~ 50°C (32 ~ 122°F); 0 ~ 95% RH, non-condensing
Storage conditions	-20 ~ 60°C (-40 ~ 158°F)



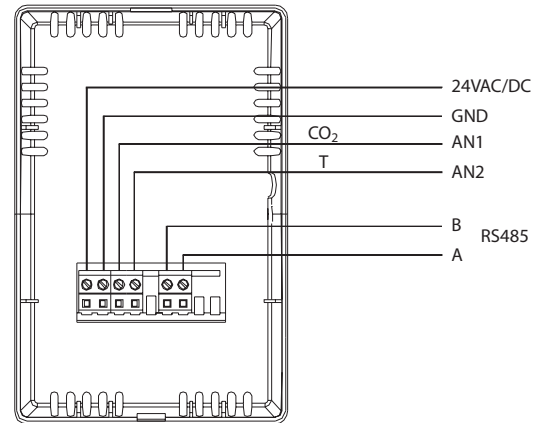
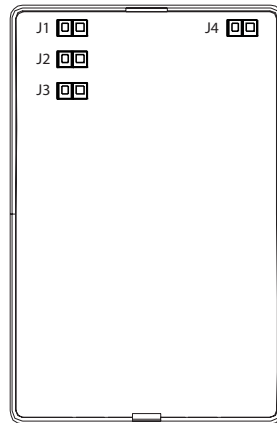
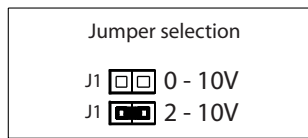
Carefully read the following instructions prior to installation of this device. Always keep this pamphlet for future reference.

Opening & Closing the Cover



Wiring Diagram

Connection Terminal		Function	Electrical Data
1	G+	Power (+)	24VAC / 24VDC +
2	G0	Power ground (-)	24VAC/24VDC
3	OUT CO ₂	Analogue output (+)	0 ~ 10VDC corresponds to CO ₂ measurement
4	OUT Temp.	Analogue output (+)	0 ~ 10VDC corresponds to -20 ~ 60°C
6	B- (Rx)	Modbus RS485 interface	
7	A+ (Tx)		



J1	Output
Connected	2 - 10 VDC
Disconnected	0 - 10 VDC

NOTE: The labelling of RS485 Data + and Data - wires as A and B is not standard. Be sure to connect your Data - wire to terminal 6 and your Data + wire to terminal 7 when wiring up your RS485 connection, regardless of the cable manufacturers A and B labelling system.

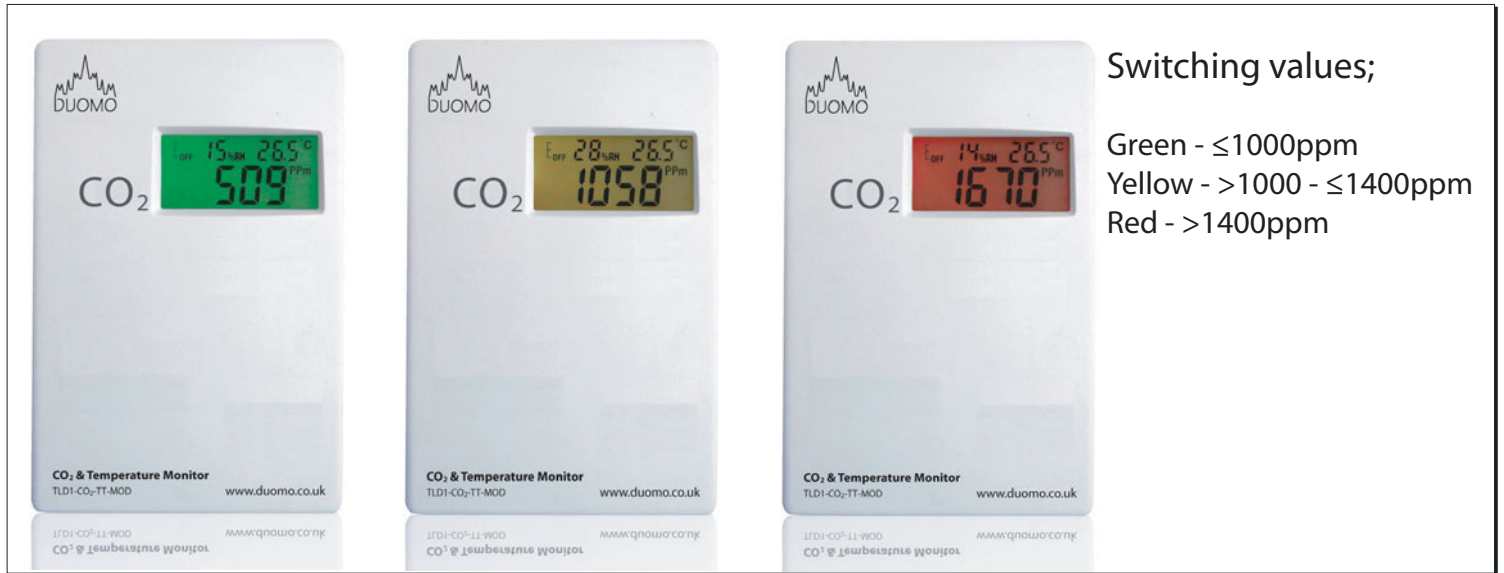
Selecting the output

Cut off all power to the unit and open the cover using the instructions on the next page. Inside there are four sets of jumpers: J1, J2, J3 & J4. J1 is used to select the output voltage.

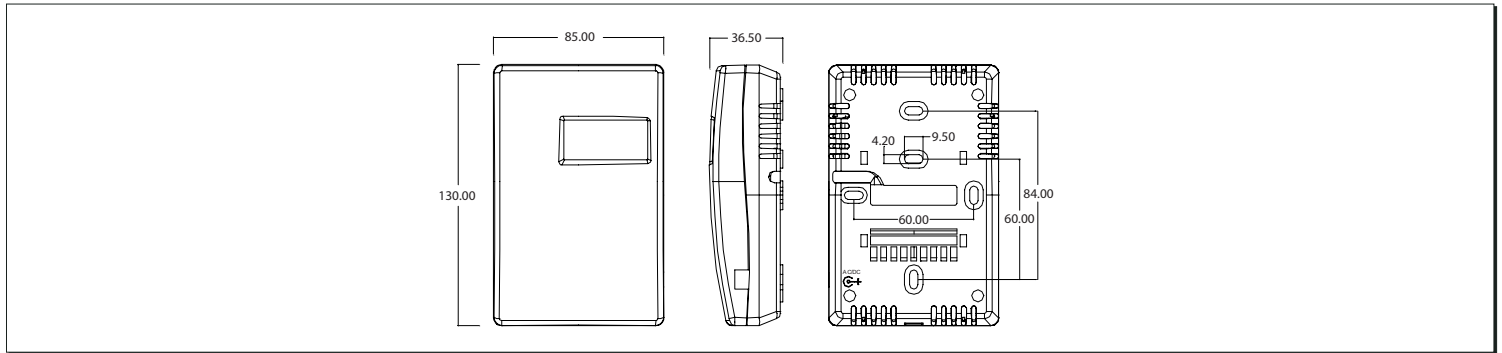
The chart above details how to set J1 for the required voltage output.

To select a 2 - 10VDC voltage output, place the jumper over the 2 pins. To select a 0 - 10VDC voltage output, remove the jumper. **DO NOT** touch J2, J3 or J4.

TLD1-CO₂-TT-MOD Fascia



Layout & Dimensions



Installation

Do not install the detector on voltages higher than marked on the detector.

- Open the cover (see diagram on previous page).
- Do not mount the unit near a diffuser or any steam source, or in direct sunlight.
- Mount the wall plate first (1.2 - 1.3m from the ground); there are two dimensions available (see diagram).
- Place the detector against the wall at desired location; make sure wires can be passed through the notch on the wall plate.
- Connect wires to terminal strips. Make sure wiring connection correct and secure.
- Close the cover (see diagram on previous page).

Important Instructions

1. Do not shake or hit the transmitter too much during shipment or mounting to protect the internal infrared CO₂ sensor from any damage.
2. Do not detach the upper PCB from the lower one without instruction from our engineers. Doing so may cause damage to the CO₂ sensor.

Notice:

a. Use of cellular telephones or radio transceivers within two feet of the sensor during calibration could cause sensor interference, calibration errors and affect sensor accuracy. Please refrain from using these devices during sensor calibration.

b. When checking the analogue output, avoid breathing directly on to the CO₂ transmitter.

