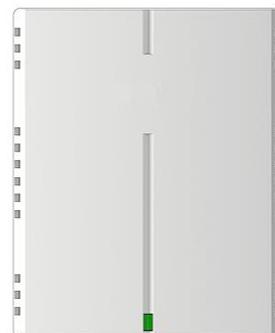


# User's Manual

## Carbon Dioxide Detector

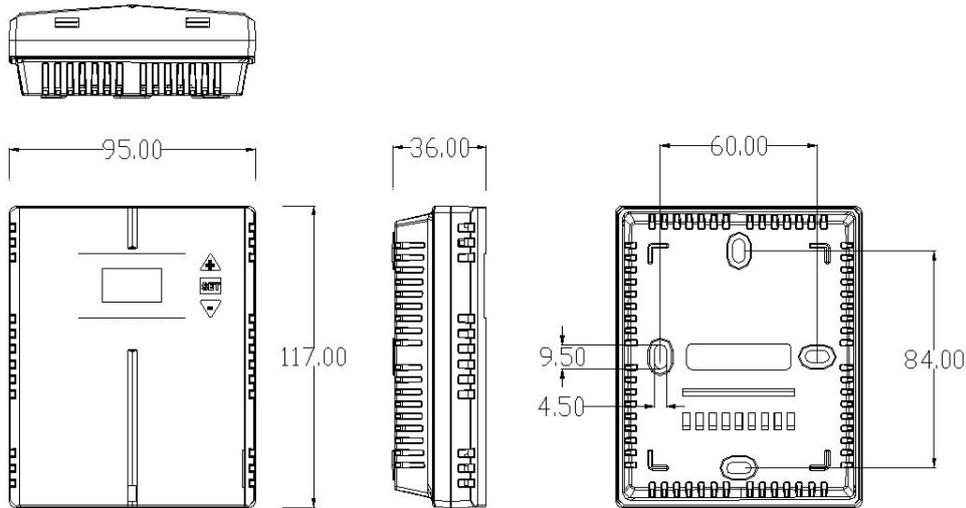
Model: AT-VLC-ND-A1



### Specifications

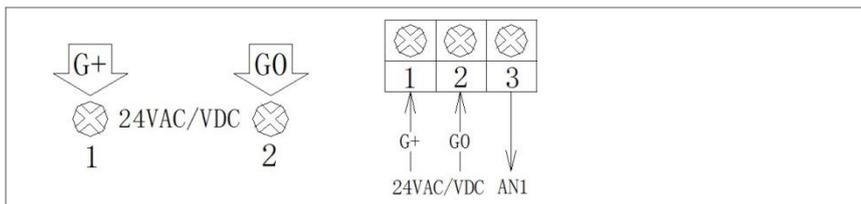
General Data	
Power supply	24VAC/VDC±10%
Consumption	3.5 W max. ; 2.0 W avg.
Analog outputs	One 0~10VDC/4~20mA for CO2 measurement PID control output is selectable for CO2
LED light	3-color mode (default) Green: ≤1000ppm Orange: 1000~1400ppm Red: >1400ppm Red flashing: CO2 sensor faulty Working light mode Green on: working Red flashing: CO2 sensor faulty
Operation condition	0~50°C; 0~95%RH, non condensing
Storage condition	-10~60°C / 0~80%RH
Net Weight / Dimensions	190g /117mm(L)×95mm(W)×36mm(H)
Installation	wall mounting with 65mm×65mm or 2"×4" wire box
Housing and IP class	PC/ABS fireproof plastic material, protection class: IP30
Standard	EMC approval
Carbon Dioxide	
Sensing element	Non-Dispersive Infrared Detector (NDIR)
CO <sub>2</sub> measuring range	0~2000ppm
CO <sub>2</sub> Accuracy @22°C(72°F)	±60ppm + 3% of reading or ±75ppm (whichever is greater)
Temperature dependence	0.2% FS per°C
Stability	<2% of FS over life of sensor (15 year typical)
Pressure dependence	0.13% of reading per mm Hg
Calibration	ABC Logic Self Calibration Algorithm
Response time	<2 minutes for 90% step change typical
Signal update	Every 2 seconds
Display resolution	1ppm
Warm-up time	2 hours (first time) / 2 minutes (normal operation)

## Dimension and Mounting



- ◆ Please note the power supply is 24VAC/VDC±10%. Don't install the detector with over the voltage.
- ◆ First of all, please prepare a flat head screwdriver and gently put it deep inside of the hole on the bottom of the detector housing. Then slant the screwdriver and open the cover gently. Do not mount it near diffuser or any steam source, in direct sunlight.
- ◆ Mount the wall plate. 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.
- ◆ Finally close the cover gently.

## Wiring Diagram



## Analog output selection

- ◆ The default analog output is 0-10V, 4~20mA can be selected by jumpers as below instruction.
- ◆ Open the cover, there are five black blocks J1 & S1~S4. J1=OFF corresponds to 0-10V and J1= ON corresponds to 4-20mA. At the same time, connect 'V' side of S1~S4 corresponds to 0-10V and connect 'A' side of S1~S4 corresponds to 4-20mA.

