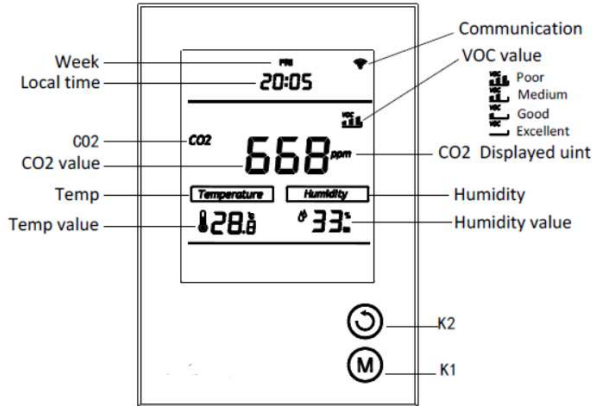


### AQD.012



The Air Quality Meter can improve the indoor climate by monitoring the current status of CO<sub>2</sub>, VOC, temperature and humidity. 'live' on its LCD display. Linked to a MEMo web server, these measured values are logged every minute and stored locally, so that in addition to current values, histories are also shown via web browser on tablet or PC.

Via the MEMo logic interface, all these measured values can be used to control e.g. relay contacts or generate alarms.  
Display:

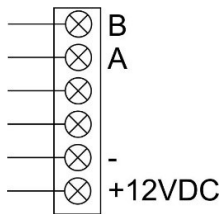


**Service:**

- Long press K2 to check the Modbus address. Change these parameters by short pressing to increase.
- Long press K1 to change the local time. Change these parameters by short pressing to increase.

#### 1. Connecting:

Fig. top view connector



**Power supply:** The module is powered via a separate 12VDC power supply.

**Caution:** Never connect under voltage as otherwise there is a risk of damage to the electronics.

**Modbus:** For the RS485 Modbus, only connect the A and B terminals.

#### 2. Configuration on the display:

Once the power supply is connected, this module works stand-alone and shows its measured values on the LCD display. Via Modbus, this module can be linked to a data logger as well as the MEMo web server. The Modbus address, set to 1 by default, can be viewed or changed via the display. The set Modbus parameters: 9600 8N1 cannot be changed.

- Modbus address : Id001... id127
- Baud Rate: 9600 baud
- Data: 8 bit
- Parity: Prty n (parity none)
- Stop bit 1

#### Change the local time

1. During startup, long press K1 to enter the local time adjustment setup screen.
2. "Week" flashes, press k2 to adjust Monday to Sunday
3. After completing the change, press K1 to go to "Hour", "Hour" flashes, press K2 to change "Hour";
4. After completing the change, press K1 to go to "Minute", "Minute" flashes, press K2 to change it

5. After completing the change, press K1 to exit, without any operation, one will automatically return to normal display after 10 seconds, and the parameters will be saved.

#### Change Modbus address.

1. In the normal display interface, long press K2 to get into the Modbus setup
2. The display shows "SET 001", then short press K2 to change, range: 1-127;
3. After completing the change, press K1 to exit, without any operation, one will automatically return to normal display after 10 seconds, and the parameters will be saved.

### 3. Modbus registers

The AQM.012 module uses the rs485 Modbus protocol on 9600 8N1. Read data via the 03 Modbus standard function code, 06/16 write function code.

Add	Name	Property	Notes
40000	Temperature	Read only	Unit: 0.1°C; Basic value :-9.0°C, Normal Range (0~ (999 + 90)) or (-9.0°C~99.9°C) Sensor Short Circuit Fault, 0x6666 Sensor Open Circuit Fault, 0x5555
40001	Humidity	Read only	Unit: 0.1%; Range (0~999)
40002	CO2	Read only	Unit: ppm; Range (0~2000) Failure Position:0x5555
40003	Reserved		
40004	Week	Read/Write	Range: 1~7
40005	Hour	Read/Write	Range: 0~23
40006	Minute	Read/Write	Range: 0~59
40007	Reserved		
40008	Voc Level	Read only	Range: 0~3; 0:Excellent ; 1:Good ; 2:Moderate; 3:Poor
40009	Reserved		
40010	Reserved		

#### 4. Configuration in the web server

Login as installer under Level3: password 'Level3' and then 'CANCEL'  
Create a channel with 'ADD CHANNEL x(Y)'



When the channel appears, click on the CHx button so that the channel configuration opens, see figure

1. Choose 'AIR AQD.012' as module type
2. Choose 'AirQ' as mode
3. Enter the Modbus address of this module

4. Give a name to the meter'
5. Press 'SAVE'

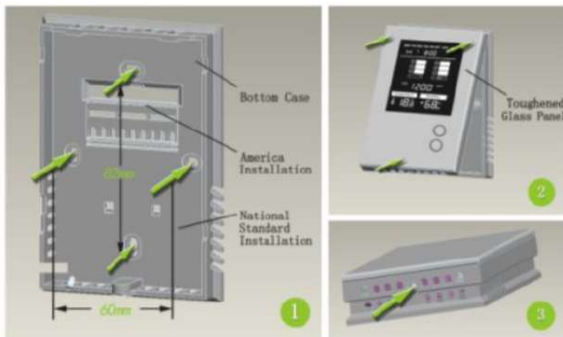
### 5. What values are logged.

MEMo logs every 60 seconds:

- CO2 in ppm
- Room temperature in °C
- Humidity in %
- VOC value : poor, medium, good and excellent

### 6. General remarks:

- Visualization of the channels for the customer : see WS.503 Webserver /configuration/channels
- **Mounting:** The module must be mounted perpendicular and the air inlet cannot be shielded



1. Remove the bottom of the case, use screws to secure the bottom to the wall
2. Mount the display on the wall enclosure with the top first.
3. Fasten with the screw.

### 7. Technical data:

#### General:

Mounting: wall mounting

LCD display shows :

- Co2 value 0 ... 2000ppm
- Temperature -9... 99.9°C
- Relative humidity: 0..90%
- VOC value in 4 levels : low-medium-good-excellent

#### Operating conditions:

Operating temperature range: 10 °C to 50 °C

Storage temperature range: -10 °C to 60 °C

Maximum humidity: 90 %, no moisture condensation

Max. mounting height : 2000m

#### Physical Properties:

Housing: plastic, self-extinguishing according to . UL94-V0

Degree of protection: IP20, EN 60529

Installation indoors, at a height of approx. 1.6 meters

Dimensions (H x W x L): 90mm x 130mm x 28mm

Weight: about 150 grams

#### Connections:

**Power Supply:** 12VDC (MeanWell DR-15-12)

**Modbus :** -,A,B connect

#### Labels:

RoHS: Non-toxic, cf. WEEE/RoHS Directives

CE: In accordance with EMC and low voltage directive: HBES – EN 50090-2-2 and EN60950 – 1: 2006.

### 7. Installation instructions

Installation must be carried out by a certified installer and in accordance with the regulations in force. The module must be built into a fireproof fuse box. During installation, the following must be taken into account (non-exhaustive list):

- the applicable laws, standards and regulations.
- the state of the art at the time of installation.

- This manual, which only mentions general provisions and should be read in the context of each specific installation.

- the rules of good workmanship.

- the specified specs in this manual, otherwise there is a risk of damage to the module.

This manual must be attached to the electrical installation file. On the 2-Wire website you can always find the most recent manual of the product.

### 8. Support

Would you like to have the product repaired in case of a possible defect? Please contact your supplier or order "inspection module" online.

### 9. Warranty provisions

The warranty period is two years from the date of delivery. The delivery date is the invoice date of purchase of the product by the consumer. If no invoice is available, the production date applies. The consumer is obliged to inform Qonnex bvba in writing of the lack of conformity, and this at the latest within two months after discovery. In the event of a lack of conformity, the consumer is only entitled to a free repair or replacement of the product, which is determined by Qonnex.

Qonnex is not responsible for a defect or damage resulting from incorrect installation, improper or negligent use, incorrect operation, transformation of the product, maintenance in violation of the maintenance instructions or an external cause such as moisture damage or damage due to overvoltage. The mandatory provisions in national legislation on the sale of consumer goods and the protection of consumers in countries where Qonnex sells directly or through distributors, agents or permanent representatives take precedence over the above provisions.

Qonnex bv B-9310 Aalst Belgium [info@2-wire.be](mailto:info@2-wire.be) [www.2-wire.net](http://www.2-wire.net)