

## **Tongdy Sensing Tech.**

## **Applications**

- Used to control CO2 concentration in greenhouse and other similar applications
- provides an max 8A relay on/off output to control a CO2 generator or a fan
- For ventilation systems in greenhouse
- The CO2 generator or ventilator working mode can be preset by end users



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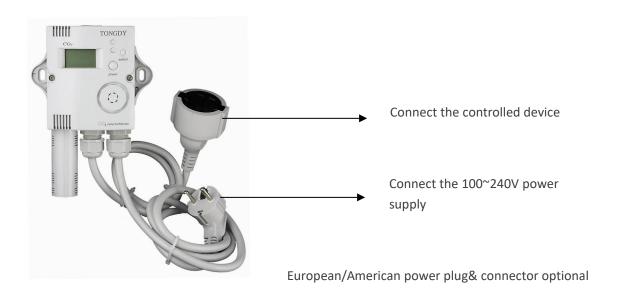
# Plug and Play Carbon Dioxide Controller



### Product No: TKG-CO2-1010D-PP

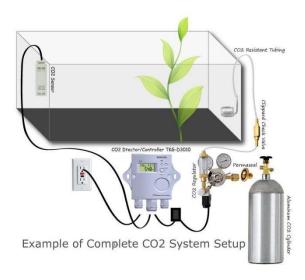
#### **Features**

- Design for control the CO2 concentration in greenhous/ mushrooms or other applications
- NDIR infrared CO2 sensor inside with Self-Calibration and up to 15 years lifetime.
- Plug & play type, very easy to connect the power and a fan or CO2 generator.
- 100VAC~240VAC range power supply with European or American power plug and power connector.
- A max. 8A relay dry contact output
- A photosensitive sensor inside for auto changeover of day/night work mode
- Replaceable filter in the probe and extendable probe length.
- Design the convenient and easier buttons for operation.
- Optional split external sensor with 2 meter cables
- CE-Approval.





One application of the split controller and sensor



# **Specifications**

| CO <sub>2</sub> Sensor    | Non-Dispersive Infrared Detector (NDIR)                       |  |
|---------------------------|---------------------------------------------------------------|--|
| Measurement Range         | 0~2,000ppm(default) 0~5,000ppm (preset)                       |  |
| Accuracy                  | ±60ppm + 3% of reading @22°C(72°F)                            |  |
| Stability                 | <2% of full scale over the life of the sensor                 |  |
| Calibration               | Self-calibration system enable or disable                     |  |
| Response Time             | <5 minutes for 90% step change at low duct speed              |  |
| Non-linearity             | <1% of full scale @22℃(72°F)                                  |  |
| Duct Air Velocity         | 0~450m/min                                                    |  |
| Pressure Dependence       | 0.135% of reading per mm Hg                                   |  |
| Warm up time              | 2 hours (first time) 2 minutes (operation)                    |  |
| Split CO2 sensor optional | 2 meter cable connection between the senor and the controller |  |
| Power supply              | 100~240VAC                                                    |  |

#### TKG-CO2-PP plug&play controller for greenhouses

| Consumption                   | 1.8 W max. ; 1.0 W avg.                                                                               |
|-------------------------------|-------------------------------------------------------------------------------------------------------|
| LCD display                   | Display CO <sub>2</sub> measurement                                                                   |
|                               | 1xdry contact output                                                                                  |
| Dry contact output (optional) | Max. switch current: 8A (load resistance) SPDT relay                                                  |
| Plug& play type               | 100~240VAC power supply with European or American power plug and power connector to the CO2 generator |
| Operation conditions          | 0°C~60°C (32~140°F); 0~99%RH, non condensing                                                          |
| Storage conditions            | 0~50℃(32~122℉)/ 0~80%RH                                                                               |
| IP class                      | IP40                                                                                                  |
| Standard Approval             | CE-Approval                                                                                           |

# Models

| TKG-CO2-1010-PP |                            | Plug & play controller with 1x 8A relay output to control a CO2 generator. 100~240VAC power supply. Photosensor inside for auto changeover of day/night mode.                                          |
|-----------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TKG-CO2-3010-PP | Plug-&-Play CO2 Controller | Plug & play controller with a split external sensor in two meters.  1x 8A relay output to control a CO2 generator, 100~ 240VAC power supply. Photosensor inside for auto changeover of day/night mode. |
| TKG-CO2-1010D   | CO2 Controller for         | CO2 controller with 1x 8A relay output to control a CO2 generator.  100~240VAC power supply. Photosensor inside for auto changeover of day/night mode.                                                 |
| TKG-CO2-3010D   | greenhouses                | CO2 controller with a split external sensor in two meters. 1x 8A relay output to control a CO2 generator. 100~ 240VAC power supply. Photosensor inside for auto changeover of day/night mode.          |

# **Typical Applications**

- TKG-CO2-1010D-PP Controller is used to control CO2 level in greenhouse and other similar applications, provides an max 8A relay on/off output to control a CO2 generator or a fan.
- For ventilation systems in greenhouse.
- The CO2 generator or ventilator working mode can be preset by the end users in different applications

## **Dimensions Mounting**

Wall m ounting w ith plug& play

probe Length 69.00mm

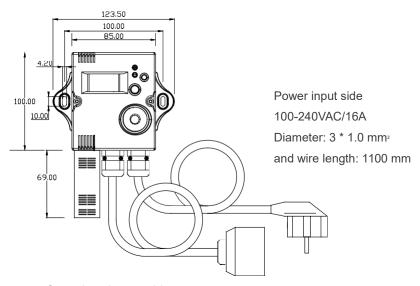
Probe Diameter Ø26.00mm

Installation Holes 100.00mm

Power cable 1100.00mm

Cable to device 700.00mm

Power plug/socket European or American



169.00

Control equipment side

100-240VAC/16A

Diameter: 3 \* 1.0 mm<sup>2</sup> and wire length: 700 mm

# **Shipping Information**

| Indiv. Ctn. Dim     | 255mm×130mm×115mm        |
|---------------------|--------------------------|
| Master Ctn. Qty     | 15 units                 |
| Master Ctn. Dim     | 49cm(L) ×36cm(W)×42cm(H) |
| Master Ctn. Net Wt. | 20KGS                    |



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