CON[O]TEC

CONOTEC CO., LTD.
DIGITAL TEMPERATURE CONTROLLER

ISO 9001:2008

FOX-2121 | Instruction Manual

TIME / TEMP. / HUMI.
25.6 ℃ %
SUN MON TUE WED THU FRI SAT
12 : 22
FOXFA
FOX-2121
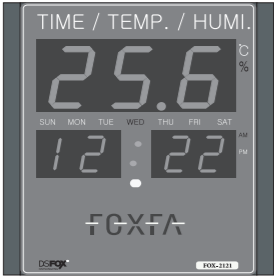
- A user manual for this product is posted on the company website.
- Please download the technical document and communications manual on the company website

01 Safety precautions

Please read the safety precautions carefully for correct operation of the product.

※ The specifications and dimensions specified in this instruction manual may be changed without any notice for performance enhancement.

⚠ Warning

1. This product was not made as a safe device. Therefore, this product should be attached with dual safety devices if it is used for the control purposes (e.g. a device vulnerable to accident and property damage, etc.).
2. Do not wire, inspect or service this product while the power is being supplied.
3. You must attach this product to a panel. Otherwise, it may cause an electric shock.
4. When connecting the power, you must check the terminal number.
5. Do not ever disassemble, process, modify or repair this product.

⚠ Caution

1. Please make yourself familiar with all the operation instructions, safety precautions and warnings before using this product. Comply with related specifications and capacity requirements
2. Do not wire or install this product to any unit with high inductive load (e.g. motor, solenoid, etc.).
3. Use a shielded cable with a proper length when extending a sensor.
4. Do not use any part that generates an arc when used in the same power or directly switched in close proximity.
5. Keep the power cable away from a high-voltage cable and do not install this product in any place that is full of water, oil and dust.
6. Do not install this product in any place that is exposed to direct sunlight or rain.
7. Do not install this product in any place that is subject to strong magnetic power, noise, vibration or shock.

8. Keep this product away from any place that generates strong alkaline or acid substances. Use a separate pipe.
9. Do not sprinkle water onto this product for cleaning when installing it in the kitchen.
10. Do not install this product in any place where the temperature/humidity ratings are exceeded
11. The sensor cable should not be cut or cracked..
12. Keep the sensor cable away from a signal cable, a power cable or a load cable. Use a separate pipe.
13. Keep in mind that the follow-up service will not be available if this product has been arbitrarily disassembled and modified
14. ⚠ symbol on the terminal wiring diagram indicates a safety statement that alerts a warning or caution.
15. Do not use this product near any device generating strong high-frequency noise (e.g. high-frequency welding machine high-frequency sewing machine, high-frequency radio, large-capacity SCR controller, etc.).
16. Using this product in any method other than those specified by by the manufacturer may lead an injury or a property damage
17. The product is not a toy. Keep it away from children.
18. The product should be installed only by an expert or a qualified person.
19. The company will not be liable for any damage caused by the violation of the above warnings and cautions or by a consumer's fault
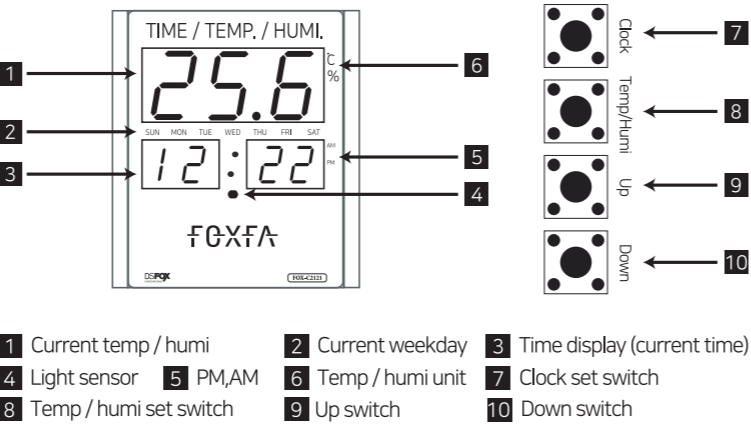
⚠ Danger

Caution: Risk of electric shock

- Electric shock – Do not touch the AC terminal while the current is flowing. It may cause an electric shock.
- You must disconnect the input power when servicing it.

02 Model Types

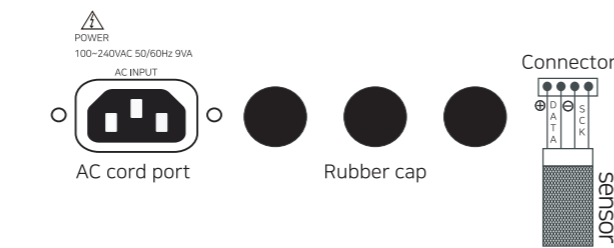| Model	Sensor	Temp/Humi range	Size	Function
FOX-2121	SHT11	-20.0℃ ~ 95.0℃ 0%RH ~ 100%RH	193.5mm(W) 241mm(H)	Temp / Humi / Time / Day display Brightness control by light level

03 Components
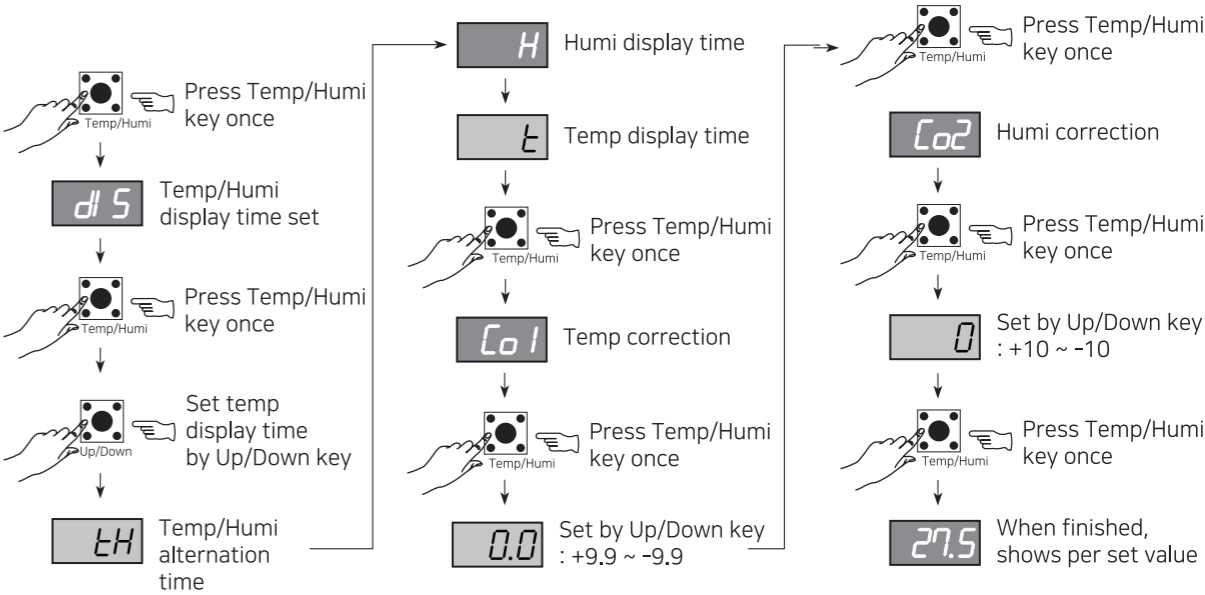
■ Display / Internal Case Switch Description

TIME / TEMP. / HUMI.
1 → 25.6 ℃ % ← 6
2 → SUN MON TUE WED THU FRI SAT
3 → 12 : 22 ← 5, 4
FOXFA
FOX-2121

7 — Clock
8 — Temp/Humi
9 — Up
10 — Down

1	Current temp / humi	2	Current weekday	3	Time display (current time)
4	Light sensor	5	PM,AM	6	Temp / humi unit	7	Clock set switch
8	Temp / humi set switch	9	Up switch	10	Down switch

04 Terminal wiring diagram

■ FOX - 2121

⚠
POWER
100~240VAC 50/60Hz 9VA
AC INPUT

AC cord port　　　Rubber cap　　　Connector
DATA / CLOCK
sensor

05 Setting process

Setting Temperature / Humidity

Press Temp/Humi key once

dI S — Temp/Humi display time set

↓ Press Temp/Humi key once

tH — Temp/Humi alternation time

↓ Set temp display time by Up/Down key

→ H — Humi display time

↓

t — Temp display time

↓ Press Temp/Humi key once

Co1 — Temp correction

↓ Press Temp/Humi key once

0.0 — Set by Up/Down key : +9.9 ~ -9.9

→ Press Temp/Humi key once

Co2 — Humi correction

↓ Press Temp/Humi key once

0 — Set by Up/Down key : +10 ~ -10

↓ Press Temp/Humi key once

27.5 — When finished, shows per set value

Program Settings (The value of each item is the factory setting.)

After power, press Clock key once

20:24 — Year display (blink)

↓ Set year by Up/Down key

20:24

↓ Press Clock key once

4:28 — Month set (blink)

↓ Set month by Up/Down key

4:28 — Month set (blink)

↓ Set year by Up/Down key

4:28

→ Press Clock key once

4:28 — Date set (blink)

↓ Set date by Up/Down key

4:28

↓ Press Clock key once

AM PM — AM,PM set (blink)

↓ Set AM/PM by Up/Down key

AM PM

↓ Press Clock key once

7:12 — Hour set (blink)

→ Set hour by Up/Down key

7:12

↓ Press Clock key once

7:12 — Min set (blink)

↓ Set minute by Up/Down key

7:12

↓ Press Clock key once

SUN MON TUE — Day set (blink)

↓ Set day by Up/Down key

SUN MON TUE

→ Press Clock key once

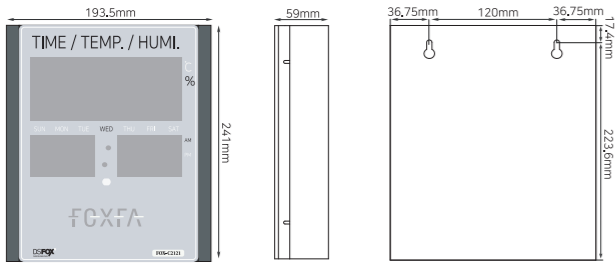9:20 — Setup complete, current time displayed

※ Setup order: Year → Month/Date → PM/AM → Hour/Minute → Day

06 Diemension and panel hole sizes

(Unit : mm / error : ±0.5)

■ FOX - 2121(193.5x241x59mm)

07 Function details

dlS : Temperature/Humidity Display Type Setting
Allows user to choose display mode by temp/humi type.

- **td** Temp/Humi alternating display
- **t** Temp-only display
- **H** Humi-only display

Co1 : Current Temp Calibration
- While there is no problem in the product, a function to calibrate when temperature is different error and reference standard that occur in the input sensor (e.g. Mercury thermometer or thermomete currently use, a temperature controller)

Ex) Actual temperature : 10.0℃
Display window : 12.0℃ → **Cor** Modification of 0.0 to -2.0
→ Displayed as 10.0
(corrected current temperature)

Co2 : Current Humi Calibration
- If the unit is fine but the external sensor shows error or differs from a reference (e.g., existing hygrometer/controller), this corrects the humidity difference.

Ex) Actual Humidity : 30%
Display window : 32% → **Co2** Modification of 0 to 2
→ Displayed as 32%
(corrected current Humidity)

09 Easy error diagnosis instructions

※ If an error is displayed while the product is running

- **Er1** : It is case where the product was subject to a strong external noise and internal data memories have been damaged In this case, contact us for product service.
- Although this controller was designed to withstand a certain level of external noise, it is not supposed to withstand all levels of noise.
- If the product is subject to a noise greater than 2KV, it could be internally damaged.
- If **oEr** (open error) or **SEr** (short error) is displayed, there is something wrong with a sensor. Please check the sensor.

◈ Installation precautions
■ This device sholuld be connected to a protective earth terminal and a power supply in order to prevent an electric shock.
■ Do not block the air outlet.

◈ Operation precautions
※ An operating environment of this device is as follows.
■ Ambient temperature : 0 ~ 60℃　■ Ambient humidity : 80%RH or less
■ Indoor uses only　　　　　　　■ Pollution class 2
■ Altitude under 2000m　　　　　■ Installation category : II
■ This device should be laid out in a way that its power cord is easy to handle.
■ Using this product in any method other than those specified by the manufacturer may damage its protection function

■ Major products and development

- Temperature/humidity controller
- Counter and timer controller
- Current and voltage panel meter
- Temperature/humidity indicator
- Oven controller
- CO2 controller
- PID controller
- Unit cooler controller
- Heat pump controller
- Chiller controller
- Thermo-hygrostat controller
- Short message alarm
- Temperature/ humidity transmitter
- Smartphone app and monitoring system

※ This manual was prepared in the Naver Nanum fonts.