



Temperature · Humidity programmable controller

TEMI2000F SERIES



RAPID DATA EXPLORATION & SEARCH



DIGITAL RECORDS & DIGITAL SIGNATURE



PRODUCT OPERATION LOG MANAGEMENT



BASIC SUPPORT FOR SD MEMORY CARD



AVAILABLE FOR DIGITAL RECORDING



CE / IP65 CERTIFIED PRODUCT





◀ SPECIALITY OF APPLICATION FIELD

As a temperature and humidity controller, it satisfies both the dry-wet bulb control method (PT-PT) and the direct-reading humidity control method (PT-DCV)

◀ DIFFERENTIATION OF HUMIDITY CONTROL

Implementation of stable control by applying differentiation control algorithm by selecting humidity control mode according to chamber(equipment) size.

◀ HIGH PRECISION CONTROL

Provide precision control of
 Temperature : $\pm 0.1\% \pm 1$ digit of F.S
 Humidity : $\pm 1.0\% \pm 1$ digit of F.S through 18bit A/D converter

◀ SEGMENTATION OF CONTROL PID

It is divided into simultaneous control of temperature and humidity PID 6 group and temperature only PID 3 group, and implement control optimized for use conditions

◀ HUMIDITY DISPLAY MODE SELECTION

Easy to manage humidity data for the test type by determining whether or not to display current humidity according to the humidity setting value
 Auto mode : "—" is displayed when setting humidity setting value 0.0%
 Manual mode : Current humidity value is displayed when setting humidity setting value 0.0%



EASY AND CONVENIENT TOUCH METHOD

Convenient product operation and setting using a touch screen interface



DI ERROR SCREEN EDIT

Able to display when error occur by producing/uploading images as desired by users



POWERFUL COMMUNICATION ENVIRONMENT

Ethernet support for RS232C/485 serial communication (Communication speed 115,200bps)



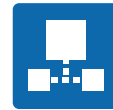
DIGITAL INPUT

Able to operate/stop, hold/step, pattern select, error detect using 16 points of DI input signal support DO output to error name change and DI input



DIGITAL OUTPUT

80 different types of DO signals (Calculation, DI, Manual USER, IS, TS, ALM, RUN etc) can be used as 32points (12+20) contact output



DETACHABLE HARDWARE

Composed of separation of display unit, control unit, input/output board various system configurations and installation are possible when construing chamber(Equipment) and system

STATUS DISPLAY LAMP CHANGE FUNCTION

- Status display lamp type and name can be changed to display on the operation screen

Status display lamp name edit (Enter up to 5 characters max)

IS1	IS2	IS3	IS4
IS5	IS6	IS7	IS8
TS1	TS2	TS3	TS4
AL1	AL2	AL3	AL4
AL5	AL6	AL7	T.RUN
H.RUN	1.REF	2.REF	DRAIN

IS1	IS2	IS3	IS4
SOL.1	SOL.2	SOL.3	SOL.4
FAN	HEAT	T.OVR	H.OVR
ALM1	ALM2	DOOR	LAMP
DAMP	ERROR	T.RUN	H.RUN
1.REF	2.REF	DRAIN	LOG.1

INTERNAL WEB SERVER

- Firmware update available through built-in web server
- Accessible through various devices such as PC, Smartphone, Tablet etc.

Firmware update through web server

ACCESS CONTROL

Access control

- User registration and management
- User authorization
- User operation control



Electronic record

ELECTRONIC RECORD

- System history management
- User operation history management
- Long-term data recording based on large file system

ELECTRONIC SIGNATURE

Electronic signature

- Trend data electronic signature management
- Control access to electronic signature data

Audit trail

AUDIT TRAIL

- Track system history
- User operation history tracking
- Track history by period and user



ACCESS CONTROL

- System operation based on authenticated users
- System user registration and management
- Restrict system access according to each user's authority (ADMIN : 1, MANAGER : 10, USER : 100)

USER'S AUTHORITY



ADMIN

system operation

operation control related setting
electronic signature
user management
trend and history management



MANAGER

system operation

operation control related setting
electronic signature



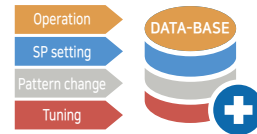
USER

system operation



ELECTRONIC RECORD

- Provide database of electronic document records for the history of system event occurrence
- Generate operation history data for user's operation
- Record previous and subsequent values of operation data for parameter



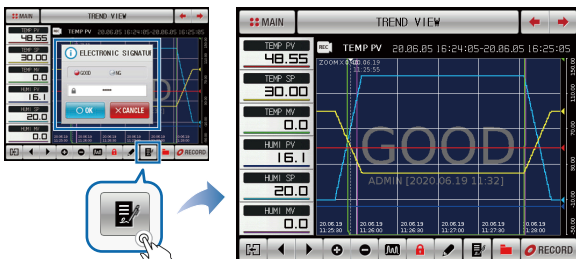
Embedded Data-Base

- 01 Robust to data tampering and corruption by providing high security
- 02 Easily and quickly perform a large amount of historical data search
- 03 Perform search filtering function by date and user more easily



ELECTRONIC SIGNATURE

- electronic signature for each trend data recorded by authorized users



GOOD Select

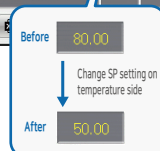
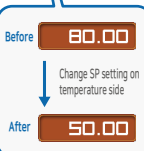
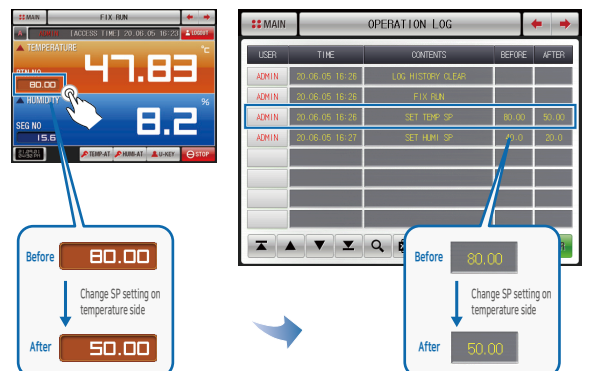


NG Select



AUDIT TRAIL(Audit trail of system operation)

- Support tracking by user and period
- CSV(Excal) conversion for output data

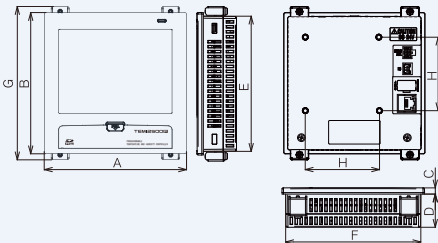


Product specification

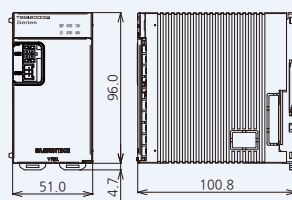
Classification	Details	TEMI2500F	TEMI2700F	
Screen	Display	5.7" TFT-LCD	7.5" TFT-LCD	
	Resolution	640(W) x 480(H)		
	Display language	Korean / English / Chinese (Simplified, Traditional) / Japanese		
	Initial screen	Support user-set initial screen		
	User screen	16 screens can be used as an electronic album		
Analog input	Panel mount	Panel mount, VESA mount(MIS-D 75)		
	Number of inputs	2 points (temperature 1 point, humidity 1 point)		
	Sensor type	Temperature	PT1 100Ω	-90.00 ~ 200.00°C
			PT2 100Ω	-100.0 ~ 300.0°C
		Humidity	DCV	-1.000 ~ 2.000V(-100.0 ~ 200.0°C)
			PT1 100Ω	-10.0 ~ 110.0°C(0.0 ~ 100.0%)
	DCV	1.000 ~ 5.000V(0.0 ~ 100.0%)		
	Sampling time	Temperature and humidity each 250ms		
Input degree	Temperature	±0.1% of full scale ±1 digit		
	Humidity	±1.0% of full scale ±1 digit		
Number of input correction	Temperature, humidity section correction of each 4 points			
Analog output	Output specifications (Max. 4 points)	Voltage output(SSR) 4 points	Voltage: 24V DC (Load resistance: Min. 600 / Pulse width: Min. 5ms)	
		Current output(SCR) 4 points	4~20mA DC(Load resistance: Max. 600Ω)	
	Output type	Control output / transmission output(PV, SP)		
Output degree	±0.3%(D/A 14bits)			
Digital input	Contact specification	Basic 16 points(contact capacity: Max. 12v dc, 10ma), a contact or b contact action selection		
	Contact function	Operate and terminate/hold/step, select pattern to operate, di detection delay time setting, di error occurrence screen selection (display error message or user setting photo)		
Digital output	Contact specification	Basic 12points (20 points added when option is selected)		
		C contact relay basic 4 points	Normal open(Max. 30V DC/1A, 250V AC/1A) Normal close(Max. 30V DC/1A, 250V AC/1A)	
		A contact relay basic 8 points Add A contact relay - 20 points (IO2 option)	Normal open(Max. 30V DC/1A, 250V AC/1A)	
	Contact type	Inner signal(10points) On/off signal(temp.10Points, humi. 5Points)	Calculation signal(8points) Error signal(1point) User signal(1point)	
		Time signal(4points) Stationary, program termination signal(2points)	DI signal(16points) Sensor disconnection signal(2points) Freezer signal(2points)	
Alarm signal(8points) Up-soak-down signal(6points)	Manual signal(12points) Stationary timer signal(2points)			
Operation signal(2points) Stand by signal(2points)	Drainage signal(1points)			
Program	Number of patterns/segments	500atterns / 50,000 segments		
	Segment setting time	Max. 999 hours 59minutes 59 seconds		
	Function	Rising/falling change rate, Stand by motion, Operation start condition, Pattern name input, Return mode after power failure, Motion at the pattern termination		
	Repeat	Entire repeat and section repeat		
Pid control	Pid group	9 PID group(Temperature, Humidity PID 6 group + Temperature - only PID 3 group)		
	Pid type	Zone PID		
	Other features	Reference point setting of auto tuning, PID time constact copy, Humidity control mode selection		
Data back up	Storage media	Internal memory (4GB), SD/SDHC card (FAT32 format) standard support		
	Storage function	Program pattern / Parameter setting value backup and restore, Save indication/setting value		
Communication	Communication specification	Basic: RS485/RS232C selectable by switch, Max. 31 units can be connected, Communication speed: Max. 115,200bps Default: Ethernet(TCP/IP)		
	Protocol	PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU, TCP)		
Power	Rated voltage	Max. 24V DC 22VA		
	Lithium battery	Setting data preservation(CR2032)		

External dimensions and panel cutting size

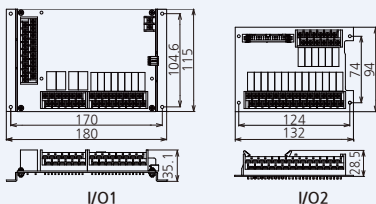
Display



Control



I/Oboard



(Unit : mm)

NO.	2500F	2700F
A	144	203
B	144	180
C	6.5	6.5
D	33.5	38.2
E	137.5	173
F	137.5	196
G	156	192
H	75	75

* Cutting size of panel
: E, F (Tolerance : 0 / +1.0)

Model code

TEMI2 * 00F - * *

Display unit LCD size

5 : 5.7 inch | 7 : 7.5 inch

Control method

0 : General control | 1 : Heating, Cooling control

I/O board

0 : I/O1 (Relay 12points) | 1 : I/O1,2 (Relay 32points)



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