



# **Temperature & Humidity Programmable Controller**













States display lamp name changed

SAMONTECH

DISP NONE T.MV 1/0 NONE H.MV



**С** ТОUCH







\* The actual size of the TEMI1200 model.

## Specialized controller

As a specialized controller for temperature and humidity, synchronized control system with PT-PT, PT-DCV

#### Specialized humidity control

Humidity control algorithm according to the equipment size implements a stable control

#### High accuracy

Precision control with 18bit A/D Convertor TEMP: ±0.1% ±1 digit of F.S HUMI: ±1.0% ±1 digit of F.S

# Optimizing PID group

Precision control by 6 group of TEMP/HUMI and 3 group of temperature only

### Humidity display mode

Depending on the humidity setting to determine whether the currentdisplay of humidity → Humidity data management easier Automatic mode : At humidity setpoint 0.0% set, "---.-" display Manual mode : At humidity setpoint 0.0% set, now humidity pv display

# Main Functions





**Touch screen interface** Easy operation and setting using touch screen interface



Users can create/upload JPG images as needed and display when an error occurs

#### Separated hardware

Configuration in seperation of display, controller and input/output board configuration of diverse system and easy workability(Support VESA mount)



## Digital input

Available for operation/stop, hold/step, pattern selection and error sensing using 16point DI input signal change of error name and supporting of DO output for DI input



## **Digital output**

32 digital outputs (ST'D 12 + OPT 20) points can be assigned to about 80types of various signal like Logical, DI, Manual, User, IS, TS, ALM, RUN and so on

# Serial Ethernet Com

#### **Powerful communication** Basic include RS232C/485 serial

communication (Communication speed 115,200bps) Ethernet support

Retain PV visibility by expansion

function of run screen

Possible to change States display lamp name changed the status lamp type and name on operation display 40.00 9**N**.N States display lamp name edit (Can input by up to 5 letters) 154 SOL.4 SOL.1 SOL . 2 SOL.3 FAN HEAT T.OVB H.OVB ALM1 LAMP ALM2 DOOR T.BUN H. BUN ERROR DAME DRAIN L0G.1 1.REF 2.REF

Expansion function of run screen





# SERIES EMP10

# Various patterns

Fix and program control are possible and when program control, possible to set 80 petterns/1200 segments

High accuracy Precision control with 18bit A/D convertor  $\pm 0.1\% \pm 1$  digit of F.S

# Control PID of a variety

Temperature control PID group (5 Zone PID + 1 Deviation PID or 6 Seg PID)Zone, Deviation, Seg PID etc. various PID offer

# Various unit displays

When using DCV sensor, various kinds of industrial sensors can be connected as well as temperature by displaying various kinds of 12 units. (°C, °F, EDIT, %, Pa, kPa, %RH, mV, V, Ω, Torr, Kgf)

# Heating control

Heat and cooling control by equipments (Option)





# Free pc software

Free PC multi-monitoring software for Communication and SD Viewer for data management of SD data



#### Available in a variety of sizes Available in a variety of sizes from 1200/1300/1500/1900 (1200 model cutting size: 113,3 X 80,6 mm)



## Digital recorder function Real-time monitoring displays as trend graph

and easy data acquiaitions of PV, SP no additional Recorder required



SD Card

# Input sensor bias

Offset value depending on characteristics of system helps smooth PV line applying assigned offset by each flexibly predefined ranged



#### SD memory card support The pattern and parameter can be up/download via SD memory card

# Multi-language system

Supporting of various languages of Korean, English, Chinese and Japanese and it is appropriate for globalization

# Practical use of internal memory

The data(data, pattern, parameter) stored in internal memory can be checked, up/download via PC S/W, SD card.



the TEMI controller is stored about 90 days TEMP is about 180 days)

Logical signal set

The combination of the various signals is possible and logical output is possible





An example of the Logical signal behavior





# Product specification

Group         Items         TEMI1000         TEMI2000           Screen         DisplayResolution         1:00         4.3 (Web FTH-LCD / 600W) × 480(h)         1:900         9.0 "Wide FTH-LCD / 800(W) × 480(h)           Screen         Mount type         Point ExplayResolution         1:900         9.0 "Wide FTH-LCD / 800(W) × 480(h)           Screen         Mount type         Point Explay Resolution         1:900         9.0 "Wide FTH-LCD / 800(W) × 480(h)           Mount type         Point Explay Resolution         Screen         Topint Explay Resolution         Screen           Maint type         Point Explay Resolution         Screen         Topint Explay Resolution         Screen           Type         Point Explay Resolution         Topint Explay Resolution         Screen         Advance Resolution           Sampling time         Sampling time         Each temperature and humidity 250ms         Distor full case ±1 digit(AD 18bits)         50% attach Scale : 1:999 - 30000           Biasi         Each Apoints price and full bias for temperature and humidity 250ms         Distor full case ±1 digit(AD 18bits)         50% attach Scale : 1:00 (KIR 1990 - 200 (KIR					
Display/Resolution         12:00         4.3' Wide TF14CD / 800(W) × 480(H)         13:00         5.0' Wide TF14CD / 800(W) × 480(H)           Screen         Language         Korean, English, Chinese, Japanese         9.0' Wide TF14CD / 800(W) × 480(H)           Mumber of point         Zpoints/Tenzoratus: Tpoint, Humidity: Tpoint)         Tpoint(Universal input)         Tpoint(Universal input)           Analog input         Tippe         P11:10:00         -0:00 - 20:00*C         TC         K, J, E, T, R, B, S, L, N, U, W, Plasinel II, C           Analog input         Tippe         Totom         -1:00 - 20:00*C         C         K, J, E, T, R, B, S, L, N, U, W, Plasinel II, C           Mumber of point         Tpoint (Universal input)         -1:00 - 20:00*C         C         K, J, E, T, R, B, S, L, N, U, W, Plasinel II, C           Tippe         DCV         -1:00 - 20:00*C         DCV         -1:00 - 20:00*C         DC         -1:00 - 20:00*C           Biss         Each temperature and humidity Scims         22:00ms         22:00ms         22:00ms         20:00 attach Scient isstant           Bisplay unit         TEMP.         C         C         TCMP         C         FC           Output scurcinscing         Output scurcinscing         Output scurcinscing         Output scurcinscing         Output scurcinscing           Output scurcinsc	Group	Items	TEMI1000 TEMP1000		
Screen         Ubglagmessulul Language         1500         5.6" TFT-LCD         / f60(W) × 480(H)         1900         9.0" Wide TTT-LCD / 800(W) × 480(H)           Analog input         Korean, Finglish, Chinese, Japanese         Mumber of point         2pointS[emperature : 1ooint]         1point(Universal input)           Type         PT1 100a         -90.00 ~ 200.0" C         RT         PT100 (EC), JPT100 (EC	Screen	Display/Resolution	1200 4.3" Wide TFT-LCD / 800(W) × 480(H) 1300 5.0" Wide TFT-LCD / 800(W) × 480(H)		
Line         Language         Korean, English, Chinese, Japanese           Mount type         PAMEL mount, VESA mount/MIS-D 75)         Ipoint/Universal input)           Number of point         PAMEL mount, VESA mount/MIS-D 75)         Ipoint/Universal input)           Type         PT1 1000         9000 - 200.00°C         TC         K, J, E, T, R, S, L, N, U, W, Platinel II, C           Analog input         TEMP, PT1 1000         -100.0 - 300.0°C         TC         K, J, E, T, R, S, L, N, U, W, Platinel II, C           Analog input         Sampling time         Each temperature and humidity 250ms         Z50ms         Z50ms           Bias         Each temperature and humidity 250ms         Z50ms         Z50ms         TEMP, PL 0.1% of full scale ± 1 digit(AD 18bits)         ±0.1% of full scale ± 1 digit(AD 18bits)           Bias         Each temperature and humidity 250ms         Z50ms         Control output/TEMP, HUMI, %         Control output/TEMP, HUMI, %         Control output/TEMP, HUMI, %         1% of full scale ± 1 digit(AD 18bits)         1% of full sc			1500 5.6" TFT-LCD / 640(W) × 480(H) 1900 9.0" Wide TFT-LCD / 800(W) × 480(H)		
Mount type         PMLE mount, VES mount(MIS-D 75)           Number of point         2pointsTemperature: 1 point)         1 point(Universal input)           Piperstemerature: 1 point)         1 point(Universal input)         PTI 1000           Type         DCV         1.000 - 20.00/C         RT           Manalog input         Type         DCV         1.000 - 20.00/C         RT           Sampling time         Each temperature and humidity 250ms         250m2         5002 attach/Sale : 1999 - 30000           Sampling time         Each temperature and humidity 250ms         250ms         250ms         5002 attach/Sale : 1999 - 30000           Bias         Each temperature and humidity 250ms         250ms         250ms         50ms         0.1% of full scale : 10 gipt/AD 18bits)           Bias         Each temperature and humidity 250ms         C         T/RTD         C, F         DD 1% of full scale : 10 gipt/AD 18bits)         40.1% of full scale : 10 gipt/AD 18bits)         10.1% of full scale : 10 gipt/AD 18bits)         40.1% of full scale : 10 gipt/AD 18bits)         10.1% of full scale : 10 g		Language	Korean, English, Chinese, Japanese		
Number of point         2points/Temperature: 1point, Humidity:: 1point)         1point/Universal input/ temperatures and huminessal input/ TC         K, JE, TR, B, S, L, N, U, W, Platinelli, C           Analog input         TBMP, P12 1002, -100.0 ~ 200.0°C         TC         K, JE, TR, B, S, L, N, U, W, Platinelli, C           Analog input         Sampling time         Each temperature and humidity 250ms         250ms           Input accuracy         TEMP, 10.00 ~ 100.0°C         20.00°C         C         4.20mA, 0~20mA, 1~00-000W           Bias         Each temperature and humidity 250ms         250ms         40.1% of full scale ±1 digit(AD 18bits)           Bias         Each dooints pice and full bias for temperature and humidity         5000 attach (Scale ±1 digit, AD 18bits)         40.1% of full scale ±1 digit(AD 18bits)           Manalog input         TEMP, ±0.1% of full scale ±1 digit(AD 18bits)         40.1% of full scale ±1 digit(AD 18bits)           Monat Appin to accuracy         Voltage output(SSR) Apoints         ON voltage: 24V DC (Load resistor: Mar. 6000)           Output specification         Voltage output(SSR) Apoints 4~20mA DC (Load resistor: Mar. 6000)         Control output(PV, SP)           Digital input         Control output(TEMP, HUML)/Transmission output(PV, SP)         Control output(PV, SP)/Apoints 4~contact relay           No appin 4.20mA The Clader resistor in Mar. 4000MA 200 VC/1A, 250V AC/1A)         Norad open(Mar. 30V DC/1A, 250V AC/1A)		Mount type	PANEL mount, VESA mount(MIS-D 75)		
Analog input         FTMP	Analog input	Number of point	2points(Temperature : 1point, Humidity : 1point) 1point(Universal input)		
Analog input         Tampe         The Price income and the princome and the price income and the price income and		Туре	PT1 100Ω -90.00 ~ 200.00°C TC K, J, E, T, R, B, S, L, N, U, W, Platinel II , C		
Analog input         Sampling time         DCV         -1.000 - 2.0.00V(10:0 - 200.0°C)         0.4-2V, 1-5V, 0-10V, 10-20mV, 1-100mV           Analog input         Sampling time         Each temperature and humidity 250ms         5000 attach) Scale : 1 digit(A/D 18bits)         5000 attach) Scale : 1 digit(A/D 18bits)         5000 attach) Scale : 1 digit(A/D 18bits)           Input accuracy         TEMP, 20 1% of full scale 1 digit(A/D 18bits)         40.1% of full scale 1 digit(A/D 18bits)         40.1% of full scale 1 digit(A/D 18bits)           Bias         Each 4points piece and full bias for temperature and humidity         Spoints of piece and full bias           Display unit         TEMP, 1°C         TC/TPD         1°C, 1°C           Output specification         Voltage output(SR) 4points         0.1% of full scale 1 digit(A/D 18bits)         40.1% of full scale 1* digit(A/D 18bits)           Output specification         Voltage output(SR) 4points         0.1% of full scale 1* digit(A/D 18bits)         20.1% of full scale 1* digit(A/D 18bits)           Output specification         Voltage output(SR) 4points         0.1% output 1% of full scale 1* digit(A/D 18bits)         40.7% CF           Output specification         Voltage output(SR) 4points         0.1% output 1% of full scale 1* digit(A/D 18bits)         40.7% CF           Output specification         Output specification         Control output(I% P)/P(Auxillay output 1% P)/P(Auxillay output 1% P)/P(Auxillay output 1% P)/			TEMP.         PT2 100Ω         -100.0 ~ 300.0°C         RTD         PT100 (IEC)         JPT100 (JIS)         1/100 Displayable		
Analog input         HUML Sampling time         Each temperature and humidity 250ms         DCV         10:00 - 10:00 (%) (10:00 - 10:00 (%) 5000         DCV         5000 (%) 5000           Analog input         Each temperature and humidity 250ms         250ms         250ms           Bias         Each temperature and humidity 250ms         250ms         40.1% of full scale ± 1 digit(A/D 18bits)         40.1% of full scale ± 1 digit(A/D 18bits)           Bias         Each 4points pice and full bas for temperature and humidity         Bios to pice and full bas         7C, F           Output specification         Voltage output(SSR) 4points         0.1% of full scale ± 1 digit(A/D 18bits)         60.002/Vice and full scale ± 1 digit(A/D 18bits)           Output specification         Voltage output(SSR) 4points         0.1% of Null scale = 1 digit(A/D 18bits)         7C, F           Output specification         Voltage output(SSR) 4points         4-20mA DC Load resistor: Max. 6000         7C, F           Output accuracy         0.3% (DA 14bits)         Control output(Team, HUMI.)/Transmission output(PV, SP)         Control output(PV, SP)/Auxiliary output           Output accuracy         0.3% (DA 14bits)         Contact point specification of specification selection of operation for A or B point.           Contact point specification         Selection 10 (OV Segreture) 4/0 (OV 3)         Spoints A-contact relay         Corontact Normal open(Max.300 VDC/1A, 2500 VAC/1A) <td>DCV -1.000 ~ 2.000V(-100.0 ~ 200.0°C) 0.4~2V, 1~5V, 0~10V, -10~20mV, 1~100mV</td> <td></td>			DCV -1.000 ~ 2.000V(-100.0 ~ 200.0°C) 0.4~2V, 1~5V, 0~10V, -10~20mV, 1~100mV		
Analog input         Sampling time         Each temperature and humidity 250ms         250ms           Input accuracy         Each temperature and humidity 250ms         250ms           Input accuracy         HUMI, ±1,0% of full scale ±1 digit(A/D 18bits)         ±0,1% of full scale ±1 digit(A/D 18bits)           Display unit         Each temperature and humidity 250ms         250ms           Output specification         Voltage output(SCR) 4 points         ON voltage : 24V DC(Load resistor : Min, 6003/Pulse width : Min, 5ms)           Output specification         Voltage output(SCR) 4 points         ON voltage : 24V DC(Load resistor : Min, 6003/Pulse width : Min, 5ms)           Output type         Control output(SCR) 4 points         ON voltage : 24V DC(Load resistor : Min, 6003/Pulse width : Min, 5ms)           Output type         Control output(TEMP, HUMI.)/Transmission output(PV, SP)         Control output(Heating · Cooling-Option)/ Transmission output(PV, SP)/Auxiliary output           Digital input         Contact point specification (Max. 4points 4-contact relay 4 points 4-contact relay 4 points 4-contact relay 4-contact         A-contact Normal open(Max. 30V DC/1A, 250V AC/1A)           V/01 2         V(01 4 Additional 20points A-contact relay 4         A-contact Normal open(Max. 30V DC/1A, 250V AC/1A)           V/03 8 points A-contact relay 4         A-contact Normal open(Max. 30V DC/1A, 250V AC/1A)         Normal dose(Max. 30V DC/1A, 250V AC/1A)           V/03 8 points A-contact relay 4			HUMI PT1 100Ω -10.0 ~ 110.0°C(0.0 ~ 100.0%) DCV (4-20mA, 0~20mA, External resistance 250Ω,		
Sampling time         Each temperature and humidity 250ms         250ms           Input accuracy         HUML         ±01% of full scale ±1 digit(A/D 18bits)         ±01% of full scale ±1 digit(A/D 18bits)           Bias         Each 4points piece and full bias         C         TC/RTD         C, F           Display unit         HUML         %         DV         C, T, F         DT, N, Pa, kPa, YA, RH, MV, V, Q, Torr, Kgf           Output specification         (Max. 4points)         Control output(TEMP, PLUMI, Yansmission output(PV, SP)         TC/RTD         C, F           Output specification         (Max. 4points)         Control output(TEMP, HUML)/Transmission output(PV, SP)         Control output(FX, SP)/Auxiliary output           Output accuracy         40.3% O/A 14bits)         Control output(FX, SP)/Auxiliary output         Transmission output(PV, SP)/Control output(PV, SP)/Control output(FX, SP)/Auxiliary output           Digital input         Contact point specification         Report Naccontact relay 4points <-contact relay 4points			DCV 1,000 ~ 5,000V(0,0 ~ 100,0%) 500\$2 attach) Scale : -1999 ~ 30000		
Input accuracy         IEMP.         #0.1% of full scale ±1 digit(A/D 18bits)         ±0.1% of full scale ±1 digit(A/D 18bits)           Bias         Each 4points piece and full bias for temperature and humidity         8points of piece and full bias           Display unit         HUML is .10% of full scale ±1 digit(A/D 18bits)         ±0.1% of full scale ±1 digit(A/D 18bits)           Manalog         Output specification (Max, 4points)         Voltage output(SSR) 4points         ON voltage : 24V OCICad resistor : Min. 6002/Pulse width : Min. 5ms)           Output specification (Max, 4points)         Current output(SSR) 4points         ON voltage : 24V DCICad resistor : Min. 6002/Pulse width : Min. 5ms)           Output accuracy         0.3%(D/A 14bits)         Control output(IPM, SP)         Control output(IPM, SP)           Output accuracy         ±0.3%(D/A 14bits)         Contact point specification Contact point quentify (JO1         Spoints A-contact relay / 4points C-contact relay / Acontact relay / Acontact relay / Apoints C-contact relay / Acontact relay / Apoints C-contact relay / Acontact relay / Apoints / Acontact relay / Acontact r		Sampling time	Each temperature and humidity 250ms 250ms		
Bits         Each dopints piece and full bias         Each dopints piece and full bias           Display unit         TEMP. 'C.         TC/RID         'C., 'F.           Output specification         Output s		Input accuracy	IEMP. ±0.1% of full scale ±1 digit(A/D 18bits) ±0.1% of full scale ±1 digit(A/D 18bits)		
Bids         Each apoints piece and full bias for temperature and humiting sponts of piece and full bias           Display unit         Temperature and humiting sponts of piece and full bias for temperature and humiting sponts of piece and full bias           Analog         Output specification (Max, 4points)         Voltage output(SSR) 4points         ON voltage: 24V DC (Load resistor : Max, 6000)           Output specification (Max, 4points)         Control output(TRMP, HUMI.)/Transmission output(PV, SP)         Control output(Heating · Cooling-Option)/ Transmission output(PV, SP)           Output accuracy         ±0.3%(D/A 14bits)         Control output(TRMP, HUMI.)/Transmission output(PV, SP)         Control output(Heating · Cooling-Option)/ Transmission output(PV, SP)           Contact point quantity         Voltage specification Contact point quantity         Selection of Bpoints, 16points/Contact point capacity : Max, 12V DC, 10mA) Selection of operation for A or B point           Digital output         Voltage specification Contact point quantity         Voltage specification Run/Stop/Hold/Step, selectable run patterns, set DI detect delay time, select DI error monitor(text or picture)         Voltage specification Normal open(Max, 30V DC/1A, 250V AC/1A)           Digital output         Signal type         Inner signal(10.8)         Erx regramable end signal(2)         Disignal(11)         Sees roor pon signal(2/1)           Bigital output         Signal type         Inner signal(10.4)         Fix Program         Run signal(2/1)         Max signal(2/1) <td></td> <td>HUMI. <math>\pm 1.0\%</math> of full scale <math>\pm 1</math> digit(A/D 18bits)</td> <td></td>			HUMI. $\pm 1.0\%$ of full scale $\pm 1$ digit(A/D 18bits)		
Display unit         HEMP.         C         IC/R1D         C, F           Display unit         HUMP.         %         DCV         'C, F, EDIT, %, Pa, kPa, %RH, mV, V, Q, Torr, Kgf           Analog output         Output specification         Voltage output(SCR) 4points         ON voltage: 24V DC(Load resistor: Min, 6003/Pulse width : Min, 5ms)           Output specification         Output type         Control output(TEMP., HUMI.)/fransmission output(PV, SP)         Control output(Heating : Cooling-Option)/ Transmission output(PV, SP)/Auxiliary output           Digital input         Contact point specification Selection of 8 points, 16 points(Contact point capacity: Max, 12V DC, 10mA) Selection of aperation for A or B point Run/Stop/Hold/Step, selectable run patterns, set DI detect delay time, select DI error monitor(text or picture)           VO1_2         VO1_2         I/O1_4 Additional 20points A-contact relay         A-contact         Normal open(Max, 30V DC/1A, 250V AC/1A)           VO1_2         VO1_2         I/O1_1         Boints A-contact relay / 4points C-contact relay         Normal open(Max, 30V DC/1A, 250V AC/1A)           V/0_3         Bpoints A-contact relay         A-contact Normal open(Max, 30V DC/1A, 250V AC/1A)         Normal open(Max, 30V DC/1A, 250V AC/1A)           V/0_3         Bipoints A-contact relay         A-contact relay         Normal open(Max, 30V DC/1A, 250V AC/1A)           V/0_3         Bipoints A-contact relay         Normal open(Max, 30V DC/1A, 250V AC		BIBS	Each 4points piece and full blas for temperature and humidity 8points of piece and full blas		
Analog output         Output specification (Max. Apoints)         Output (SSR) 4 points         ON voltage: 24V DC(Load resistor: Max. 600Q)           Output type         Output type         Control output(TEMP., HUML)/Transmission output(PV, SP)         Control output(Heating - Cooling-Option)/ Transmission output(PV, SP)           Digital input         Control output (TEMP., HUML)/Transmission output(PV, SP)         Control output(Heating - Cooling-Option)/ Transmission output(PV, SP)           Digital input         Contact point specification Contact point function Contact point function Contact point quantity         Selection of 8points, 16points(Contact point capacity: Max. 12V DC, 10mA) Selection of poeration for A or B point Contact point quantity         VO1         8points A-contact relay         A-contact         Normal open(Max. 30V DC/1A, 250V AC/1A)           Digital output         VO1         8points A-contact relay         A-contact relay         Normal open(Max. 30V DC/1A, 250V AC/1A)           Digital output         Signal type         Time signal(10/8)         On/Off signal(TEMP:10, HUMI:5/7)         Logical signal(8)         Error signal(2/1)         Viser signal(2/1)           Program         Signal type         Time signal(4/8)         Fix Programmable end signal(2)         Manual signal(2)         Segments           Program         Patern/Segment         120 Patterns/1200 Segments         80 Patterns/1200 Segments         80 Patterns/1200 Segments         80 Patterns/1200 Segments		Display unit		c	
Analog output       Output specification (Max, Apoints)       Voitage output (SSR) 4points       ON Voitage and Paskor - With , otoba/Pube With - With , StR)         Analog output       Output type       Control output(TEMP, , HUML)/Transmission output(PV, SP)       Control output(Heating - Cooling-Option)/ Transmission output(PV, SP)/Auxiliary output         Digital input       Contact point specification Contact point function       Selection of 8points, 16points(Contact point capacity : Max, 12V DC, 10mA) Selection of operation for A or B point         Digital output       Contact point quantity (V01, 2       V/O1 + Additional 20points A-contact relay V/O1, 2       A-contact Points A-contact relay V/O1, 2       A-contact relay V/O1 + Additional 20points A-contact relay V/O3       C-contact Bpoints A-contact relay V/O3       Normal open(Max, 30V DC/1A, 250V AC/1A)         Digital output       Signal type (TEM//TEMP)       Inner signal(10/8)       On/Off signal(TEMP:10, HUMI:5/7)       Logical signal(8)       Error signal(1)       User signal(2)         Program       Signal type (TEM//TEMP)       Inner signal(2/1)       Wat signal(2/1)       Drain signal(TEMP:4)       Drain signal(TEMP:4)         Program       Segment time Segment time Puotion       Nax. 999hours 59minutes 59seconds       80 Patterns/1200 Segments       80 Patterns/1200 Segments         PID groups       PID groups 6PID groups for TEMP. HUML + 3 PID groups for TEMP. only)       6 PID groups (5 Zone PID groups of Seg PID groups (5 Zone PID, Deviation PID, Seg PID			HUIVII. % C, r, EDI, %, Pa, KPa, %KH, MV, V, &, IOFF, Kgt		
Analog output       (Wikk, Hjoritis)       Current output (ECH, Hjoritis)       4-2011H Octput accusation (Claud Testistic) - (Max, Bootz)         Digital input       Output type       Control output(TEMP, HUMI.)/Transmission output(PV, SP)       Control output(TeMP, and the state of the state state of the state of the state of the state of the st	Analog output	(Max Appoints)	VOILage Output(SSR) 4points ON VOILage 24V DC(LOad resistor - IVIIn, 600%/Pulse Width - IVIIn, 5ms)		
output         Output type         Control output(TEMP., HUMI.)/Transmission output(PV, SP)         Control output(PV, SP)/Auxiliary output           Digital input         Contact point specification Contact point specification         Selection of 8 points, 16 points(Contact point capacity: Max. 12V DC, 10mA) Selection of operation for A or B point Contact point function           VO1         8 points A-contact relay / 4 points C-contact relay Contact point quantity         V(01, 2) (V01 + Additional 20 points A-contact relay VO1         A-contact Normal open(Max. 30V DC/1A, 250V AC/1A)           Digital output         V01, 2) (V01 + Additional 20 points A-contact relay VO3         8 points A-contact relay VO3         C-contact Signal (VB)         Normal close(Max. 30V DC/1A, 250V AC/1A)           Digital output         Imme signal(10) (N)         On/Off signal(TEMP:10, HUMI:5/7)         Logical signal(8)         Error signal(1)         User signal(1)           Normal close(Max. 30V DC/1A, 250V AC/1A)         Worm signal(2)         I signal(1)         Isin signal(2)         Normal close(Max. 30V DC/1A, 250V AC/1A)           Digital output         Signal type         Time signal(10)         Normal close(Max. 30V DC/1A, 250V AC/1A)         Normal close(Max. 30V DC/1A, 250V AC/1A)           Items signal(10)         Win signal(2)         Items signal(1)         User signal(1)         User signal(1)         Items signal(1)         Items signal(1)         Items signal(1)         Items signal(1)		(IVIAX: 4points)	Control output(SCI) 400115 4*2011A DC(LOad Teststor - Max, 000%)		
Output accuracy         40.3% (D/A 14bits)           Digital input         Selection of 8points, 16points (Contact point apacity : Max. 12V DC, 10mA) Selection of operation for A or B point           Contact point specification         Selection of 8points, 16points (Contact point capacity : Max. 12V DC, 10mA) Selection of operation for A or B point           Contact point function         Nun/Stop/Hold/Step, selectable run patterns, set DI detect delay time, select DI error monitor(text or picture)           Contact point quantity         V01         8points A-contact relay         A-contact           V01         8points A-contact relay         C-contact         Normal open(Max. 30V DC/1A, 250V AC/1A)           Normal open(Max. 30V DC/1A, 250V AC/1A)         Normal open(Max. 30V DC/1A, 250V AC/1A)         Normal open(Max. 30V DC/1A, 250V AC/1A)           Digital output         Inner signal(10/8)         Gn/Off signal(TEMP:10, HUMI:5/7)         Logical signal(8)         Error signal(1)         User signal(2)           Normal open(Max. 30V DC/1A, 250V AC/1A)         Inner signal(1/1)         Warn signal(2/1)         Sensor open signal(2/1)         Normal open(Max. 30V DC/1A, 250V AC/1A)           Normal open(Max. 30V DC/1A, 250V AC/1A)         Inner signal(10/8)         Error signal(1)         User signal(1)         Sensor open signal(2/1)         Normal open(Max. 30V DC/1A, 250V AC/1A)           Normal open(Max. 30V DC/1A, 250V AC/1A)         Uposors/Sominuter signal(2/1)         Warn s		Output type	Control output(TEMP., HUMI.)/Transmission output(PV, SP) Transmission output(PV, SP)/Auxiliary output		
Digital input       Contact point specification       Selection of 8points, 16points (Contact point apacity: Max, 12V DC, 10mA) Selection of operation for A or B point         Pigital input       Contact point quantity       WO1       8points A-contact relay / 4points C-contact       Normal open(Max, 30V DC/1A, 250V AC/1A)         Digital output       Signal type (TEM/TEMP)       Inner signal(12M)       On/Off signal(TEMP:10, HUMI:5/7)       Logical signal(8)       Error signal(1)       User signal(2)         Program       Fine signal(10/4)       Fine signal(2/1)       Wait signal(2/1)       Di signal(3)       Sensor open signal(2/1)       Fine signal(2/1)         Program       Pattern/Segment       120 Patterns/1200 Segments segment seg		Output accuracy	±0.3%(D/A 14bits)		
Program         Contact point function         Run/Stop/Hold/Step, selectable run patterns, sep ID detect delay time, select DI error monitor(text or picture)           V/01         8points A-contact relay / 4points C-contact relay         A-contact         Normal open(Max. 30V DC/1A, 250V AC/1A)           Digital output         Inner signal(10/8)         On/Off signal(TEMP:10, HUMI:5/7)         Logical signal(8)         Error signal(1)         User signal(1)           Signal type         Inner signal(10/8)         On/Off signal(TEMP:10, HUMI:5/7)         Logical signal(8)         Error signal(1)         User signal(1)           Run signal(2/1)         Main signal(2/1)         Main signal(12)         Fix timer signal(2/1)         Normal open(Max. 30V DC/1A, 250V AC/1A)           Run signal(2/1)         Main signal(2/1)         User signal(1)         User signal(1)         User signal(2)           Run signal(2/1)         Wait signal(2/1)         Drain signal(12)         Fix timer signal(2/1)         Segment signal(TEMP:4)           Run signal(2/1)         Wait signal(2/1)         Wait signal(2/1)         Bair signal(1/2)         Fix timer signal(2/1)         Segment signal(TEMP:4)           Program         Segment time         Max. 999hours 59minutes 59seconds         Function         Up/Own slope rate, Wait (operating start code, Pattern name, Power stop mode, PT end mode         Pattern/Segment         Segment segment signal(TEMP:4) <t< td=""><td>Digital input</td><td>Contact point specification</td><td>Selection of 8points, 16points(Contact point capacity: Max. 12V DC, 10mA) Selection of operation for A or B point</td><td></td></t<>	Digital input	Contact point specification	Selection of 8points, 16points(Contact point capacity: Max. 12V DC, 10mA) Selection of operation for A or B point		
Image: Figure	Digital inpat	Contact point function	Run/Stop/Hold/Step, selectable run patterns, set DI detect delay time, select DI error monitor(text or picture)		
Contact point quantity       V(01,2       <		Contact point quantity	I/O1 8points A-contact relay / 4points C-contact relay A-contact Normal open(Max. 30V DC/1A, 250V AC/1A)		
Digital output       Normal close(Max, 30V DC/1A, 250V AC/1A)         Digital output       Inner signal(10/8)       On/Off signal(TEMP:10, HUMI:5/7)       Logical signal(8)       Error signal(1)       User signal(1)         Signal type       Time signal(10/8)       Fix-Programmable end signal(2)       D1 signal(16)       Sensor open signal(2/1)       War signal(2/1)         Alarm signal(8/4)       Up-Soak-Down signal(6/3)       Manual signal(12)       Fix timer signal(2/1)         Run signal(2/1)       Wait signal(2/1)       Drain signal(TEMI:1)       Seg alarm signal(TEMP:4)         Porgram       Pattern/Segment       120 Patterns/1200 Segments       80 Patterns/1200 Segments         Segment time       Max. 999hours 59minutes 59seconds       War value signal(7)       Drain signal(7)         Program       PiD groups       9PiD groups (6 PID groups for TEMP. HUMI. + 3 PID groups for TEMP. only)       6 PID groups (5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)         Zone PID       Zone PID       Zone PID       Zone PID.       Zone PID.         Auxiliary functions       Set autoruning point, PID tuning gain, Selectable HUMI. contorol code       Set autoruning point, PID tuning gain, Selectable HUMI. contorol code       Set autoruning point, PID tuning gain, Selectable HUMI.         Data       Logging function       Program pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use			I/O1 + Additional 20points A-contact relay C-contact		
Digital output       Inner signal(10/8)       On/Off signal(10/8)       On/Off signal(10/8)       Error signal(1)       User signal(1)         Signal type       Time signal(4/8)       Fix-Programmable end signal(2)       DI signal(8)       Error signal(1)       Bersor open signal(2/1)       Ref signal(2)         Imme signal(4/8)       Fix-Programmable end signal(2)       DI signal(10)       Sensor open signal(2/1)       Ref signal(2)         Program       Pattern/Segment       120 Patterns/1200 Segments       80 Patterns/1200 Segments       Segment signal(TEMP:4)         Segment time       Max. 999hours 59minutes 59seconds       80 Patterns/1200 Segments       80 Patterns/1200 Segments         PID       Function       Up/Down slope rate, Wait, Operating start code, Pattern name, Power stop mode, PT end mode         Repetition       Repetition       Repetatl/Section repeat         PID       groups       9 PID groups (6 PID groups for TEMP. HUMI. + 3 PID groups for TEMP. ohly)       6 PID groups (5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)         Data       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Forgram pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps       Option : Ethermet(TCP/IP),TEMI/P1200 is not available *In case of sel		Signal type (TEMI/TEMP)	I/O3 8points A-contact relay		
Signal type       Hink Signal (4/S)       Fix Program mable end signal(2)       DI signal (16)       Sensor open signal(2/1)       Ket signal(2)         (TEMI/TEMP)       Alarm signal(8/4)       Up-Soak-Down signal(6/3)       Manual signal(12)       Fix timer signal(2/1)         Program       Pattern/Segment       120 Patterns/1200 Segments       80 Patterns/1200 Segments       80 Patterns/1200 Segments         Segment time       Max. 999hours 59minutes 59seconds       80 Patterns/1200 Segments       80 Patterns/1200 Segments         PID       Function       Up/Down slope rate, Wait, Operating start code, Pattern name, Power stop mode, PT end mode         Repetition       Repetition repeat       PID groups (6 PID groups for TEMP. HUMI. + 3 PID groups for TEMP. only)       6 PID groups(5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)         Data       PID type       Zone PID       Zone PID       Zone PID, Deviation PID, Seg PID         Auxiliary functions       St autotuning point, PID tuning gain, Selectable HUMI, control code       Set autotuning gain, Selectable disease control code         Data       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Program pattern/Parameter can be backup and data transfer of internal memory can be)         Comm-       Interface       Basic : Flexible to change between RS458/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps       Option : Ethernet(TCP/IP), TEMI/P1200 is not availa	Digital output		Inner signal(10/8) On/Off signal(1EMP:10, HUMI:5//) Logical signal(8) Error signal(1) User signal(1)		
Alarm signal(8/4)       Up-Soak-Down signal(6/3)       Manual signal(12)       Fix timer signal(2/1)         Run signal(2/1)       Run signal(8/4)       Up-Soak-Down signal(6/3)       Drain signal(12)       Fix timer signal(2/1)         Program       Pattern/Segment       120 Patterns/1200 Segments       80 Patterns/1200 Segments       80 Patterns/1200 Segments         Segment time       Max. 999hours 59minutes 59seconds       80 Patterns/1200 Segments       80 Patterns/1200 Segments         Program       Function       Up/Down slope rate, Wait, Operating start code, Pattern name, Power stop mode, PT end mode         Repetition       Repetat All/Section repeat       Zone PID groups 9 PID groups for TEMP. HUMI. + 3 PID groups for TEMP. only)       6 PID groups(5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)         Control       PID type       Zone PID       Zone PID.       Zone PID, Deviation PID, Seg PID         Auxiliary functions       Set autotuning point, PID tuning gain, Selectable HUMI, control code       Set autotuning gain, Selectable disease control code         Data       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Program pattern/Parameter can be backup and restored, PV/SP can be stored, (You can use the SD card, data backup and data transfer of internal memory can be)         Comm-       Interface       Option : Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available			Time signal(4/8) HX Programmable end signal(2) Di signal(16) Sensor open signal(2/1) Ket signal(2)		
Program       Pattern/Segment       120 Patterns/1200 Segments       80 Patterns/1200 Segments         Program       Segment time       Max. 999hours 59 minutes 59 seconds         Function       Up/Down slope rate, Wait, Operating start code, Pattern name, Power stop mode, PT end mode         Repetition       Repeat All/Section repeat         PID control       PID groups       9 PID groups (6 PID groups for TEMP. HUMI. + 3 PID groups for TEMP. only)       6 PID groups (5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)         Data       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Zone PID, Deviation PID, Seg PID         Data       Storage media       Internal memory(64MB) SD/SDHC card (FAT32 format)       Frogram pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)         Comm-       Interface       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option : Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available       PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU)         Power       Rated voltage       Max. 24V DC 22VA       For setup data retention(CR2032)			Alarm signal(8/4)     Up-Soak-Down signal(6/3)     Manual signal(12)     Fix timer signal(2/1)       But signal(2(4))     Weit signal(2(4))     Drain signal(TEME(1))     Sea class signal(ZEME(4))		
Program       Segment time       Max. 999hours 59minutes 59seconds         Function       Up/Down slope rate, Wait, Operating start code, Pattern name, Power stop mode, PT end mode         Repetition       Repetat All/Section repeat         PID       PID groups       9 PID groups (PID groups for TEMP. HUMI. + 3 PID groups for TEMP. only)         PID type       Zone PID       Zone PID, Deviation PID, Seg PID         Auxiliary functions       Set autotuning point, PID tuning gain, Selectable HUMI. control code       Set autotuning gain, Selectable disease control code         Data       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Set autotuning gain, Selectable disease control code         Comm-       Interface       Basic       Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Power       Rated voltage       Max. 24V DC 22VA       For setup data retention(CR2032)		Dattorn /Cogmont	Run signal(2/1) Vialt signal(2/1) Uralt signal(1EWI-1) Seg alarm signal(1EWI-4)		
Program         Segment unite         Max. 999100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 39100015 391000015           Program         Function         Up/Down slope rate, Wait, Operating start code, Pattern name, Power stop mode, PT end mode           PID         Repetition         Repeat All/Section repeat         6 PID groups(5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)           PID         PID type         Zone PID         Zone PID         Zone PID, Deviation PID, Seg PID           Auxiliary functions         Set autotuning point, PID tuning gain, Selectable HUMI, control code         Set autotuning gain, Selectable disease control code           Data         Storage media         Internal memory(64MB) SD/SDHC card(FAT32 format)         Program pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)         Program pattern/Parameter can be backup and data transfer of internal memory can be)           Comm- unication         Interface         Basic         Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps           Option         Ethernet(TCP/IP),TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available         Max. 24V DC 22VA           Power         Rated voltage         Max. 24V DC 22VA         For setup data retention(CR2032)	Program	Sogmont time	Nav QODeurs Exercised		
PID       Repetition       Repeat All/Section repeat         PID       PID groups       9 PID groups (6 PID groups for TEMP. HUMI. + 3 PID groups for TEMP. only)       6 PID groups (5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)         Zone PID       Zone PID       Zone PID       Zone PID, Deviation PID, Seg PID         Auxiliary functions       Set autotuning point, PID tuning gain, Selectable HUMI. control code       Set autotuning point, PID tuning gain, Selectable HUMI. control code       Set autotuning gain, Selectable disease control code         Data       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Program pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option : Ethermet(TCP/IP),TEMI/P1200 is not available *In case of selection of ethermet, RS232C/485 is not available       Protocol       PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU)         Power       Rated voltage       Max. 24V DC 22VA       For setup data retention(CR2032)       For setup data retention(CR2032)		Eurotion	Niak 1997 Ilouis John Hules Josechilds		
PID control       PID groups       9 PID groups (6 PID groups for TEMP. HUMI. + 3 PID groups for TEMP. only)       6 PID groups (5 Zone PID groups + 1 Deviation PID group or 6 Seg PID groups)         PID type       Zone PID       Zone PID       Zone PID       Zone PID, Deviation PID, Seg PID         Auxiliary functions       Set autotuning point, PID tuning gain, Selectable HUMI. control code       Set autotuning point, PID tuning gain, Selectable disease control code         Data back-up       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Set autotuning point, PID tuning gain, Selectable disease control code         Comm-unication       Internal       Program pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option : Ethernet(TCP/IP),TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available       PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU)         Power       Rated voltage       Max. 24V DC 22VA       Max. 24V DC 22VA         For setup data retention(CR2032)       For setup data retention(CR2032)       For setup data retention(CR2032)		Repetition	Support stope rate, while operating start code, rater mane, rower stop mode, river and mode		
PID control       PID type       Zone PID       Zone PID       Zone PID, Seg PID         Auxiliary functions       Set autotuning point, PID tuning gain, Selectable HUMI. control code       Set autotuning gain, Selectable disease control code         Data back-up       Storage media       Internal memory(64MB) SD/SDHC card(FAT32 format)       Set autotuning gain, Selectable disease control code         Comm- unication       Interface       Program pattern/Parameter can be backup and data transfer of internal memory can be)       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option : Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available       PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU)         Power       Rated voltage Lithium battery       Max. 24V DC 22VA       For setup data retention(CR2032)		PID arouns	APP around (APP around FP TEMP + HIMI + 3 PID around for TEMP, only) 6 PID around (5 7 one PID around + 1 Deviation PID around of 6 Sea PID around	ins)	
control       Hib type       Long type <thlong th="" type<=""> <thlong th="" type<=""></thlong></thlong>	PID control	PID type	Tone PID Providence P	ip3)	
Data back-up       Storage media Logging function       Internal memory(64MB) SD/SDHC card(FAT32 format)         Program pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)       Program pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)         Communication       Interface       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option : Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available       PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU)         Power       Rated voltage       Max. 24V DC 22VA         For setup data retention(CR2032)       For setup data retention(CR2032)		Auxiliary functions	Set autotuning point PID tuning gain. Selectable HUML control code	le	
Data back-up       Data Logging function       Program pattern/Parameter can be backup and restored, PV/SP can be stored. (You can use the SD card, data backup and data transfer of internal memory can be)         Communication       Interface       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option : Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available Pc-Link, PC-Link(Checksum), Modbus(ASCII, RTU)         Power       Rated voltage Lithium battery       Max. 24V DC 22VA For setup data retention(CR2032)	Data back-up	Storage media	Internal memory/64MB) SD/SDHC card/FAT32 format)		
back-up       Logging function       (You can use the SD card, data backup and data transfer of internal memory can be)         Communication       Interface       Basic : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option : Ethernet(TCP/IP),TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available         Power       Rated voltage       Max. 24V DC 22VA         Lithium battery       For setup data retention(CR2032)		Storage media	Program pattern/Parameter can be backup and restored. PV/SP can be stored		
Communication       Interface       Basic       : Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps         Option:       Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available         Power       Rated voltage       Max. 24V DC 22VA         For setup data retention(CR2032)       For setup data retention(CR2032)		Logging function	(You can use the SD card, data backup and data transfer of internal memory can be)		
Comm- unication       Interface       Option : Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available         Power       Rated voltage Lithium battery       Max. 24V DC 22VA For setup data retention(CR2032)	Comm- unication	Interface	Basic Flexible to change between RS485/RS232C by DIP switch, Max. 31 nodes, Max. 115,200 bps		
Offication         Protocol         PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU)           Power         Rated voltage Lithium battery         Max. 24V DC 22VA           For setup data retention(CR2032)			Option : Ethernet(TCP/IP), TEMI/P1200 is not available *In case of selection of ethernet, RS232C/485 is not available		
Power         Rated voltage         Max. 24V DC 22VA           Lithium battery         For setup data retention(CR2032)		Protocol	PC-Link, PC-Link(Checksum), Modbus(ASCII, RTU)		
Lithium battery For setup data retention(CR2032)	Power	Rated voltage	Max. 24V DC 22VA		
		Lithium battery	For setup data retention(CR2032)		

# External dimension and panel cutting size





Promising the Best SAMWON TECHNOLOGY CO., LTD. 388, Songnae-daero, Bucheon-si, Gyeonggi-do, Republic of Korea

T +82-32-326-9120 F +82-32-326-9119 E webmaster@samwontech.com/sales@samwontech.com

Being the leader of controller market in the 21st century with the best technology