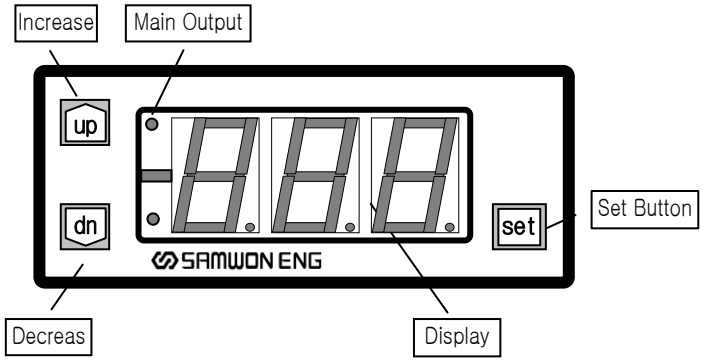
Instruction Manual SU-503B		
Model	Humidity Range	Output
SU-503B	Humidity(0~100%)	Main Relay(OUT1)

※ Thank you for purchasing Samwon ENG product. The User Manual is provided for preventing the damage and trouble of product caused by carelessness and to inform the precise usage. Please keep it in the safe place and refer to it when you have any doubt during using this product.

1. Function & Name of Parts



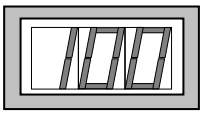
Display	Current humidity / Setting humidity	
Main Output Display	Main Output ON/OFF Display	
Setting Button	set	Hum, Installer Setting Button
Increase Button	up	Setting Value increase button
Decrease Button	dn	Setting Value decrease button

2. Functions

- Only for humidity ON/OFF control.
  Variation(dIF) 0.1~25.0%,0~300sec delay timer, forward/converse Selection function
- Lock function for installer / Limit function of Set Value
  - Limit the range of set humidity by users ⇒ Set limit function
  - Hysteresis, delay time, forward/converse selection ⇒Lock function

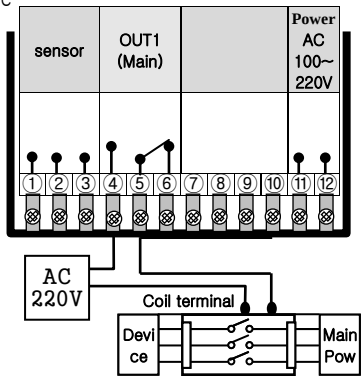
3. Main Output Set Value Change

<Current Hum>



- Supply power to the controller
  Display the current humidity.
- Press Set button once. Main output set Hum value in the right picture flashing
- To change them, press UP & Down Key.
  If you press UP/DN longer than 1 sec Increased or decrease quickly
  ※If set Hum limit function Is working, the setting will be made within the range.
- If you press Set once again, the set hum will be saved..
  Even if switched-off, the set value will not be deleted..
- The current hum displayed and Controller starts to control.
- Main Output use terminal 4~5.

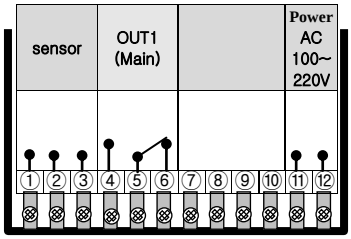
< Terminals on



※ Terminal 6 is used for OFF terminal
Should not be used for Main Output.
※Auxiliary output(alarm/timer) use terminal 7, 8. Refer to 9 alarm output setting and 10 cycle timer setting.

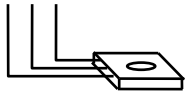
4. Sensor Connection Method

< Terminals on



① sensor connection method
- Please connect as the right picture
  If you connect with the changed wired or use different type sensor 'Err' to be displayed.

② senor wire extension method
- it is possible within 100m.
  You should use the shield inside cable, in order to prevent input noise
- The humidity sensor is electromagnetic induction method. It should be Installed in dry place because The instruction value may be changed because of moisture or a drop of water inside the sensor.
- The life time of the humidity sensor is 2 years.



①Black ②White ③Shield

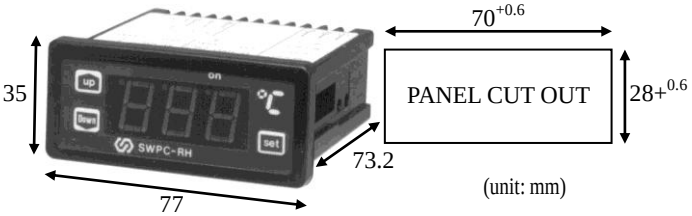
Terminal / sensor	①	②	③
Hum. sensor SU-503B	black	white	red

③ Sensor Input compensation (the current hum is different)
- If sensor cable is too long or sensor is old, there will be hum variation. At that time, use current hum compensation function (rSt).
- At the current hum displayed, press set for 3 seconds. If dIF displayed, release set. In order to move to rSt (hum compensation), press set several times.
- Input the compensation hum by using up&dn. If you press set for 3 seconds, it will be saved and the current hum will be compensated.

For example,

Current Humidity		rSt humidity		Displayed Hum
20 %	+	-5 %	=	15 %
20 %	+	10 %	=	30 %

5. External & Panel Dimension



6. Set Value Limit & Lock function

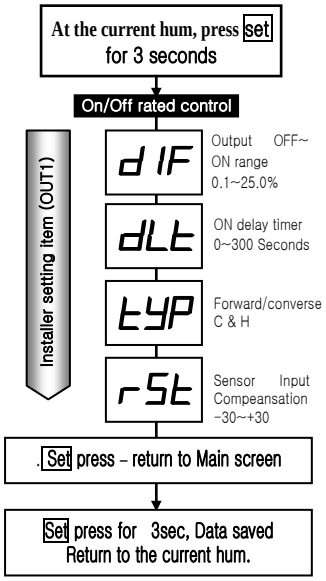
① It is possible that users cannot change the default setting, by using lock function.

Default setting	Item	Setting	Description
	LoC	OFF	Locking off. All function setting possible.
		ON	Only locking and setting hum function possible.
	Item	setting	Description
	StH	50	Settable high hum value 50
	StL	40	Settable low hum value 40

▶ If you press set for 3 seconds, the value will be saved. After that the changed value will be applied.

※ Setting hum value will be in the range of 50~40%.

7 Installer setting



* DIF & TYP Input Value example

① TYP = C(Converse)

example) Set Hum. 10%, DIF = 2

Relay ON : 12%, Relay OFF : 10%

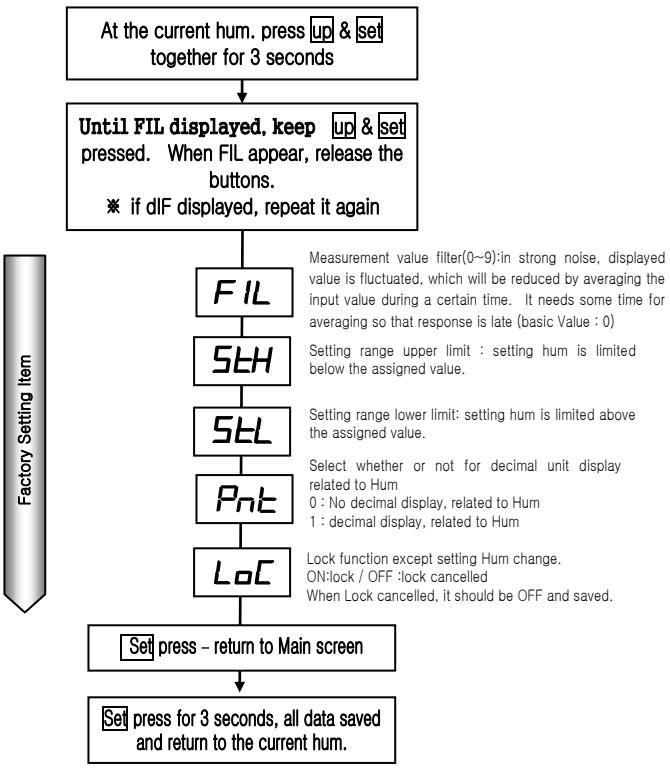
② TYP = H(forward))

example) set Hum 10%, DIF = 2

relay ON : 8%, relay OFF : 10%

* dLt =10, relay on after 10 seconds
* tyP = C(Converse), use for decreasing the Hum.
* tyP = H(forward), use for increasing the Hum.

8. Factory Default



9. Product specification

Power Voltage	AC100~220V (50/60Hz) ±10%
Power Consumption	Approx. below 5VA
Input Sensor	Humidity : Capacitance type Humidity Sensor (Allowabe Line Resistance : within 5Ω)
Display Method	Humidity : ±3% +1digit of displayed value
Variation(dIF)	0.1 ~ 25.0
Control Output	Relay Contact Output: OUT1 AC250V 10A(resistance load)/contact point life time: above 300K times (rated load)
Control Method	ON/OFF control selection
Setting Method	Digital Method by increase & decrease key
Other Functions	Sensor input compensation, Delay Timer forward/converse selection.
Ambient Temp	0℃ ~ 50℃
Ambient humidity	Below 85% RH

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