



AT02 SERIES PID TEMPERATURE CONTROLLER

User's Manual

* Names and Functions of Parts *

RESTRICTIONS ON USE

When using this product in applications that require particular safety or when using this product in important facilities, please pay attention to the safety of the overall system and equipment. Install fail-safe mechanisms, perform redundancy checks and periodic inspections and adopt other appropriate safety measures when it is necessary. This product is rated at Class II.

ATTENTION !

1. Please read the SAFETY PRECAUTION section on reverse side before use of this product.
2. Please read this user's manual before use for proper operation.
3. Please safe guard this user's manual.

* Function Setting *

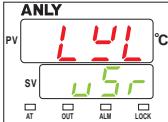
Warning! Please make sure the power is off, before making any changes on the DIP switch.

	DIP Switch					
	1	2	3	4	5	6
Input type	K Type	0~1200°C	ON	OFF	OFF	
	J Type	0~500°C	ON	ON	OFF	
	R Type	0~1700°C	ON	OFF	ON	
	PT-100	-50~400°C	OFF	ON	ON	
Control Mode	ON/OFF CONTROL			OFF		
	PID CONTROL			ON		
Output	RELAY			OFF		
	DC 24V (for SSR)			ON		
Function Lock	NONE			OFF		
	ALL EXCEPT SV			ON		

List of Alarm Function :

1	Deviation High Alarm	
2	Deviation Low Alarm	
3	Process High Alarm	
4	Process Low Alarm	
5	Deviation High/Low Alarm	
6	Band Alarm	
7	Deviation High Alarm (Standby)	
8	Deviation Low Alarm (Standby)	
9	Process High Alarm (Standby)	
10	Process Low Alarm (Standby)	
11	Deviation High/Low Alarm (Standby)	
12	Band Alarm (Standby)	

* Key Lock Setting *



Under User Level, press **V** key for 3 second to enter Key Lock Mode.

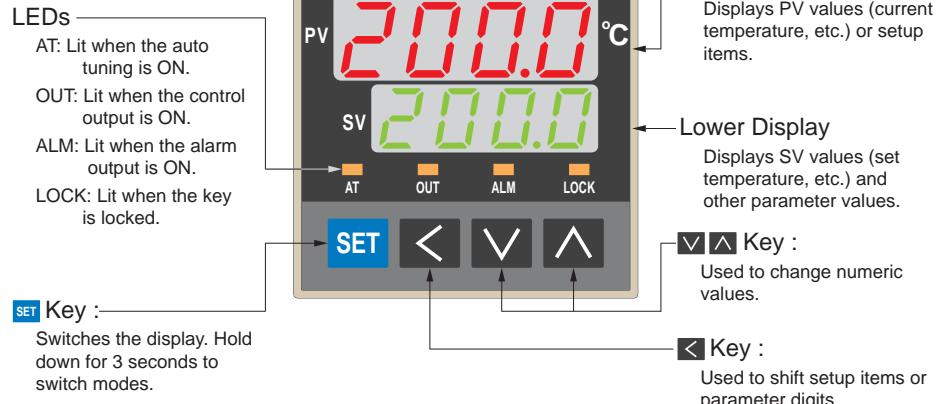
Set Lock Number according to the level of protection.

List of Key Lock Mode :

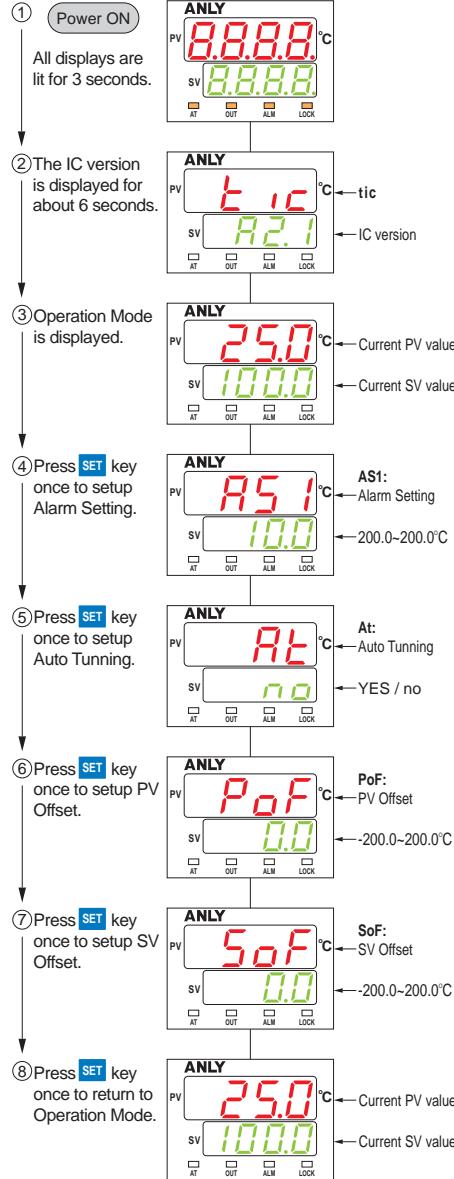
Lvl	usr	Pid	SET	Arg
Others	<input type="radio"/>	X	X	X
0022	<input type="radio"/>	<input type="radio"/>	X	X
0111	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	X
1122	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Symbol - : Can display and can be set

X: Can't display nor can't be set

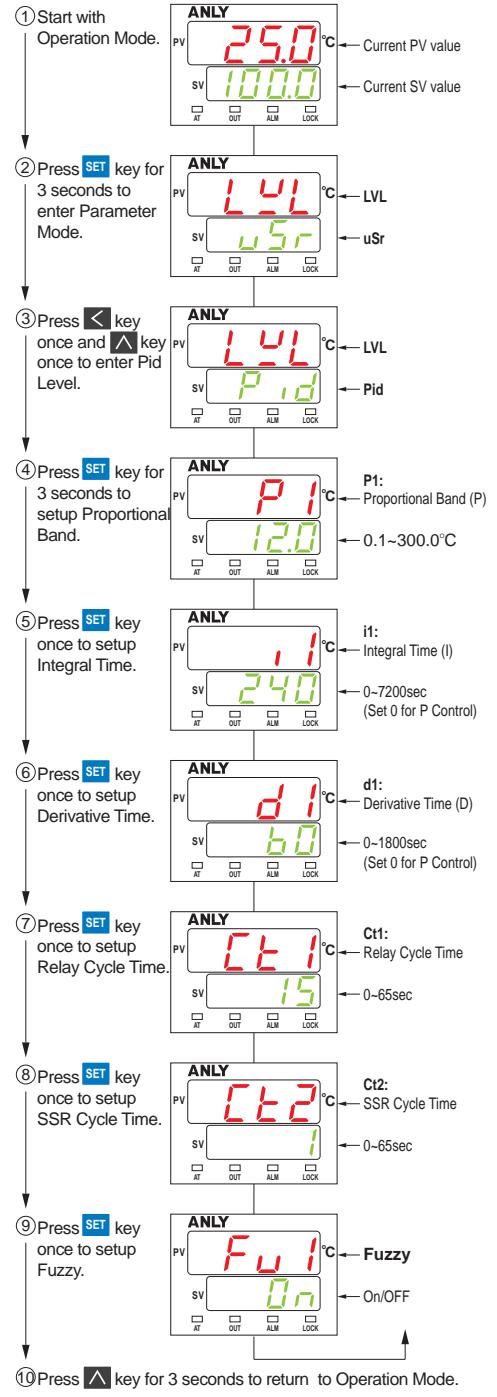


* User Level Setting *

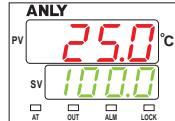


* PID Control Setting *

Set the DIP switch to PID Control before proceeding.



* SV Lock Setting *



Under Operation Mode, press **<** + **^** key for 1 seconds to lock the SV value. And press **V** key for 1 seconds again to unlock the SV value.

* ON/OFF Control Setting *

Set the DIP switch to ON/OFF Control before proceeding.

- ① Start with Operation Mode.
- ② Press **SET** key for 3 seconds to enter Parameter Mode.
- ③ Press **<** key once and **▲** key once to enter Pid Level.
- ④ Press **SET** key for 3 seconds to setup Hysteresis.
- ⑤ Press **▲** key for 3 seconds to return to Operation Mode.

* SV Value Setting *

- ① Start with Operation Mode.
- ② Press **<** key once to setup SV.
- ③ Press **▼** **▲** key to change value and press **<** key to move the cursor.
- ④ Press **<** key once to return to Operation Mode.

* Set Level Setting *

- ① Start with Operation Mode.
- ② Press **SET** key for 3 seconds to enter Parameter Mode.
- ③ Press **<** key once and **▲** key twice to enter SEt Level.
- ④ Press **SET** key for 3 seconds to setup Alarm Function.
- ⑤ Press **SET** key once to setup Alarm Hysteresis.
- ⑥ Press **SET** key once to setup Control Action.
- ⑦ Press **SET** key once to setup Decimal Point.
- ⑧ Press **SET** key once to setup Low Set Point.
- ⑨ Press **SET** key once to setup High Set Point.

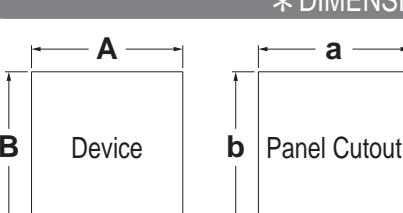
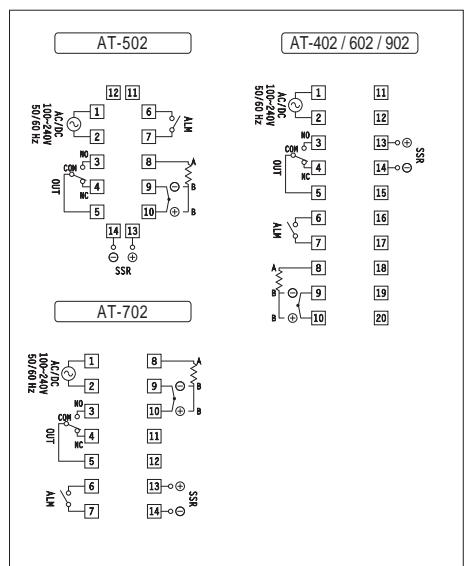
- ⑩ Press **SET** key once to setup Filter.
- ⑪ Press **▲** key for 3 seconds to return to Operation Mode.

* Argument Level Setting *

This is used to display or hide arguments under user level. Arguments can be arranged in any order, but may not be repeated.

- ① Start with Operation Mode.
- ② Press **SET** key for 3 seconds to enter Parameter Mode.
- ③ Press **<** key once and **▲** key three times to enter ArG Level.
- ④ Press **SET** key for 3 seconds to setup 1-2.
- ⑤ Press **SET** key once to setup 1-3.
- ⑥ Press **SET** key once to setup 1-4.
- ⑦ Press **SET** key once to setup 1-5.
- ⑧ Press **▲** key for 3 seconds to return to Operation Mode.

* TERMINAL LAYOUT *



AT02 series	A	B	a	b
AT-402	48	96	45.5 ^{+0.5} ₋₀	91 ^{+0.5} ₋₀
AT-502	48	48	45.5 ^{+0.5} ₋₀	45.5 ^{+0.5} ₋₀
AT-602	96	48	91 ^{+0.5} ₋₀	45.5 ^{+0.5} ₋₀
AT-702	72	72	67.5 ^{+0.5} ₋₀	67.5 ^{+0.5} ₋₀
AT-902	96	96	91 ^{+0.5} ₋₀	91 ^{+0.5} ₋₀

* SAFETY PRECAUTION *

This manual uses the following symbols to ensure safe operation of this controller.

- ⚠ WARNING** Warnings are indicated when mishandling this controller might result in death or serious injury to user.
⚠ CAUTION Cautions are indicated when mishandling this controller might result in minor injury to the user, or only physical damage to the controller.

⚠ Note this incorrect wiring of this controller can damage it and lead to other hazards. Make sure the controller has been correctly wired before turning the power ON.

⚠ Before wiring, or removing / mounting the controller, be sure to turn the power OFF. Failure to do so might cause electric shock.

⚠ Do not touch electrically charged parts such as the power terminals. Doing so might cause electric shock.

⚠ Do not disassemble the controller. Doing so might cause electric shock or faulty operation.

⚠ CAUTION

⚠ Use the controller within the operating ranges recommended in the specification (temperature, humidity, voltage, shock, mounting direction, atmosphere and etc.). Failure to do so might cause fire or faulty operation.

⚠ Do not block ventilation holes. Doing so might cause fire or faulty operation.

⚠ Do not allow lead clippings, chips or water to enter the controller case. Doing so might cause fire or faulty operation.