



# ANLY TEMPERATURE CONTROLLER

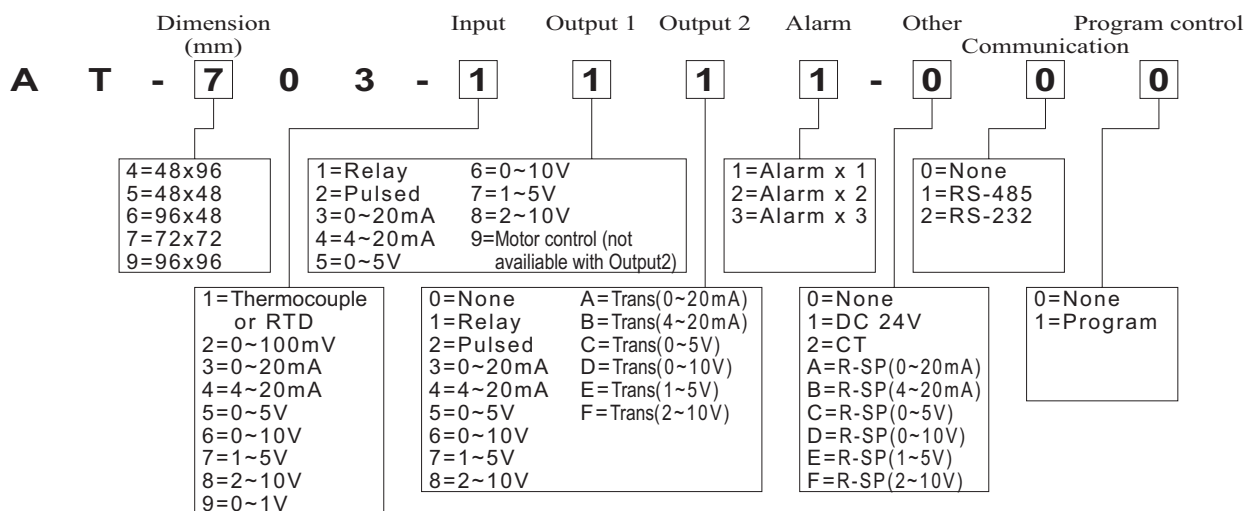
## AT03 PID TEMPERATURE CONTROLLER



### CHARACTERISTICS :

- Up to 2 output and 3 alarm channels
- 4 PID levels
- Thermocouple, RTD and linear inputs
- Optional RS-232 or RS-485 communication
- Available in 5 sizes : 48 x 48mm(1/16DIN), 48 x 96mm(1/16DIN), 72 x 72mm, 96 x 48mm, 96 x 96mm(1/4DIN)
- Servo motor control possible
- For heating and cooling processes
- Separate input channel for Remote Set Point

### TYPE SELECTION :



Note 1. AT-503 is not available with Other and 3 alarms.

Product is subject to change without notice.

## SPECIFICATIONS :

|                     |                                                                                             |                                |
|---------------------|---------------------------------------------------------------------------------------------|--------------------------------|
| Type                | AT-403 / AT-503 / AT-603 / AT-703 / AT903                                                   |                                |
| Operating voltage   | AC(V) : 90 ~ 260                                                                            |                                |
| Rated frequency     | 50 / 60 Hz                                                                                  |                                |
| Power consumption   | Approx. 3.5VA                                                                               |                                |
| Sensor input        | Thermocouple                                                                                | K, J, T, R, E, S, B, N         |
|                     | RTD                                                                                         | Pt100, JPt100                  |
|                     | Linear                                                                                      | Current(4~20mA), Voltage(1~5V) |
| Control output      | Relay                                                                                       | 240VAC 3A                      |
|                     | Voltage                                                                                     | Voltage Pulse                  |
|                     | Linear                                                                                      | 4~20mA, 1~5V                   |
|                     | Motor Control                                                                               | Open loop motor valve          |
| Alarm output        | 240VAC 3A(3 Channels Optional)                                                              |                                |
| Alarm function      | See figure 1                                                                                |                                |
| Control method      | PID, PI, P, ON/OFF, Dead Band                                                               |                                |
| Communication       | RS-232, RS-485                                                                              |                                |
| Setting             | Digital setting using front panel keys                                                      |                                |
| Indicator           | 7-segment-display and LED                                                                   |                                |
| Ambient temperature | -10 ~ +50℃                                                                                  |                                |
| Storage temperature | -25 ~ +65℃                                                                                  |                                |
| Ambient humidity    | 35 ~ 80%RH (with no icing or condensation)                                                  |                                |
| Storage humidity    | 35 ~ 95%RH (with no condensation)                                                           |                                |
| Weight              | AT-403 / 603 Approx. 170g , AT-503 Approx. 125g , AT-703 Approx. 200g , AT-903 Approx. 250g |                                |

## FEATURES :

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Type                  | AT-403 / AT-503 / AT-603 / AT-703 / AT903                                           |
| Measuring accuracy    | Within $\pm 0.3\%$ of present value or $\pm 2^{\circ}\text{C}$ whichever is greater |
| Proportional band (P) | 0.0 ~ 3000sec (0.1-second units)                                                    |
| Integral time (I)     | 0 ~ 3600sec (1-second units)                                                        |
| Derivative time (D)   | 0 ~ 900sec (1-second units)                                                         |
| Control period        | 0 ~ 150sec (1-second units)                                                         |
| Sampling period       | 300ms                                                                               |
| Memory protection     | EEPROM non-volatile memory (writing times : Approx. 100,000times)                   |

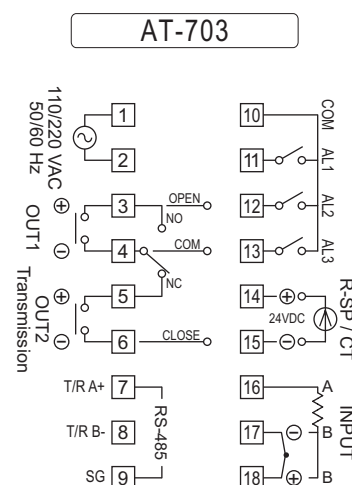
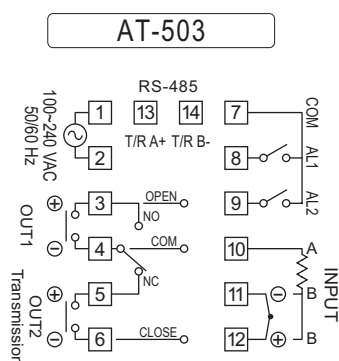
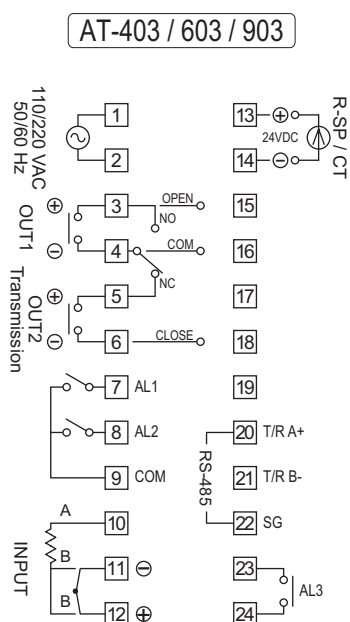
**FIGURE 1 (ALARM FUNCTION) :**

| AL1F | AL2F | AL3F | Alarm function selection                                |
|------|------|------|---------------------------------------------------------|
| 0    | 0    | 0    | No alarm                                                |
| 1    | 1    | 1    | Deviation high alarm                                    |
| 2    | 2    | 2    | Deviation low alarm                                     |
| 3    | 3    | 3    | Absolute high alarm                                     |
| 4    | 4    | 4    | Absolute low alarm                                      |
| 5    | 5    | 5    | Deviation high/low alarm                                |
| 6    | 6    | 6    | Band alarm                                              |
| 7    | 7    | 7    | System failure alarm<br>(when error information happen) |
| 8    | 8    | 8    | Loop break alarm                                        |
| 9    | 9    | 9    | Heater break alarm                                      |
| 10   | 10   | 10   | Segment ending alarm in program control                 |
| 11   | 11   | 11   | Program ending alarm in program control                 |
| 12   | 12   | --   | Time signal alarm in program control                    |
| 13   | 13   | --   | Program running alarm in program control                |

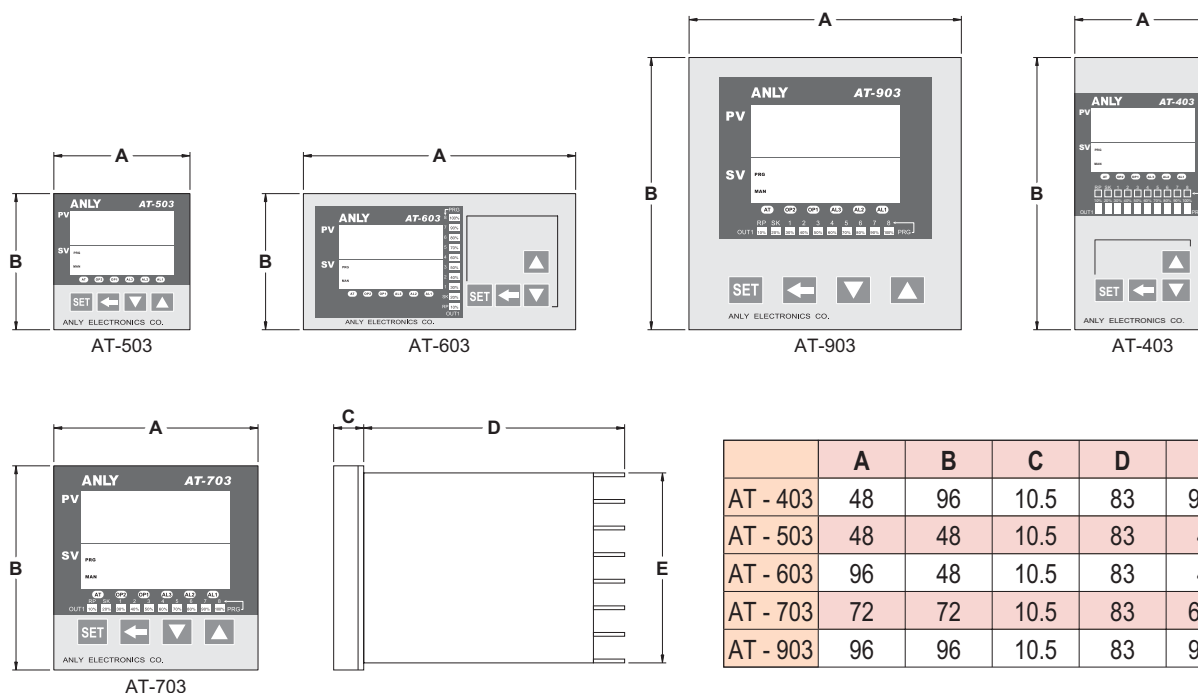
**RATED SCALE :**

| Input type | °C         | °F        |
|------------|------------|-----------|
| K1         | 0~200      | 32~392    |
| K2         | 0~400      | 32~752    |
| K3         | 0~800      | 32~1472   |
| K4         | 0~1000     | 32~1832   |
| K5         | 0~1200     | 32~2192   |
| j1         | 0~200      | 32~392    |
| j2         | 0~400      | 32~752    |
| j3         | 0~800      | 32~1472   |
| j4         | 0~1000     | 32~1832   |
| j5         | 0~1200     | 32~2192   |
| t1         | -50~50     | -58~122   |
| t2         | -100~100   | -148~212  |
| t3         | -200~400   | -328~752  |
| r          | 0~1700     | 32~3092   |
| E          | 0~1000     | 32~1832   |
| S          | 0~1700     | 32~3092   |
| b          | 0~1800     | 32~3272   |
| n          | -200~1300  | -328~2372 |
| Pt1        | -50~50     | -58~122   |
| Pt2        | 0~100      | 32~212    |
| Pt3        | 0~200      | 32~392    |
| Pt4        | 0~400      | 32~752    |
| Pt5        | -200~600   | -328~1112 |
| jPt        | -200~500   | -328~932  |
| Lin        | -1999~9999 |           |

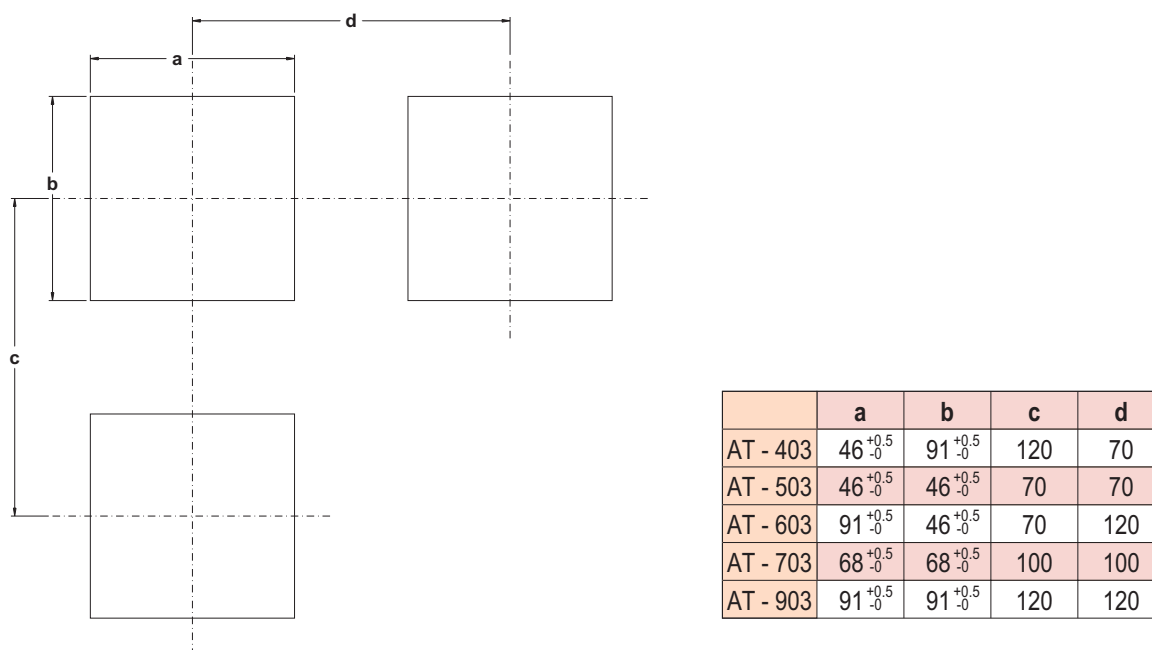
**CONNECTION :**



## DIMENSIONS : (mm)



## PANEL CUTOUT DRAWING : (mm)



## ANLY ELECTRONICS CO., LTD.

<http://www.anly.com.tw>

### TAIWAN MAIN OFFICE : ANLY ELECTRONICS CO., LTD.

No.19, Lane 202, Fushou St., Shinjuang City, Taipei, Taiwan 242  
TEL: +886-2-2996-3202 FAX: +886-2-2996-2017

### MALAYSIA BRANCH : JUSTY ELECTRONICS (M) SDN, BHD.

No.1, Jalan 6/89B, Kawasan Perindustrian Trisegi, Batu 3 1/2 Off Jalan Sungei Besi, 57100 Kuala Lumpur, Malaysia  
TEL: +60-3-7983-5758 FAX: +60-3-7981-5052

### HONG KONG BRANCH : ANLY ELECTRONICS (HK) LTD.

Flat K, 13/F, Edward Mansion, 141 Prince Edward Road W., Kowloon, Hong Kong  
TEL: +852-2397-2505 FAX: +852-2397-6080

### SHANGHAI BRANCH : ANLY TECHNOLOGY (WUXI) CO., LTD.

Room 13G, No.831, Xinzha Rd., Jingan District, Shanghai, China 200041  
TEL: +86-21-6218-3300 FAX: +86-21-6217-5911