

# Temperature Indicator TP3

## INSTRUCTION MANUAL

Thank you for purchasing HANYOUNG NUX Co.,Ltd. product.  
Please check whether the product you purchased is the exactly same as you ordered. Before using this product, please read instruction manual carefully.



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### Safety Information

Please read safety information carefully before using this product in order to use it properly. Safety information described in this manual contains important contents regarding safety. So users must follow following instructions accordingly. Safety information is composed of WARNING and CAUTION.

#### WARNING

1. Please input proper power voltage in order to prevent product to break down or get damaged.
2. Please avoid place where inflammable or explosive gas exist. This product is not explosion-proof construction.
3. Please turn off power before attach and detach this product. It may cause electric shock, malfunction and break down
4. Please do not touch or contact the input/output terminals. It may cause electric shock

#### CAUTION

1. The contents in this manual may changed without prior notice.
2. Please check whether delivered product is same as what you have asked for. (check model name and specifications)
3. Please check whether any parts have been damaged during delivery
4. Please avoid place where corrosive gas(especially noxious gas, ammonia and etc) and inflammable gas exist
5. Please avoid place where vibration and impaction carry into the product directly.
6. Please avoid place where liquid, oil, medical substances, dust, salt or iron contents exist(avoid place of pollution level 1 or 2)
7. Please avoid place where excessive induction trouble, static electricity or magnetic noise occur
8. Please avoid place with possible thermal accumulation which caused by direct sunlight or heat radiation.
9. Please use compensation lead wires in case of thermo couple input (using normal or general wire will cause temperature error)
10. In case of inputting RTD, please use small lead wire resistance and no resistant difference within 3 wires. (temperature error occur when resistant value different among 3 wires)
11. In order to avoid from effect of induction noise when using input signal line, avoid main power line, power line and load line.
12. Separate input signal line and output signal line. If separating those two lines is impossible then use shield line for input signal line.
13. For thermo couple, please use non-earthing sensor. (In case of using earthing sensor, malfunction of device might occur due to electric leakage)
14. If there is an excessive noise from power supply, it is recommended to use insulating transformer and noise filter. The noise filter must be attached to back side of the panel and wire of output side filter and power supply terminal should be as short as possible.
15. Instrument power line should be arranged very closely in order to get noise efficiency
16. When connecting this device to a panel, please use a circuit breaker or switch approved by IEC947-1 or IEC947-3.
17. Because switch or circuit breaker has been installed, please write down about disconnection of power on a panel if switch or circuit breaker operates properly.
18. Some parts of this product have limited life and others vary depending on their usage.
19. If product is properly used, warranty period is one year including parts
20. When power is ON, the preparation period of contact output is required. In case of using signals of external interlock circuit, use a delay relay
21. In case of break down of replaced instrument, please check for compatibility before replaces it with prepared instrument. Although specifications might be same but difference of setting parameter can cause unwanted operation.

### Suffix code

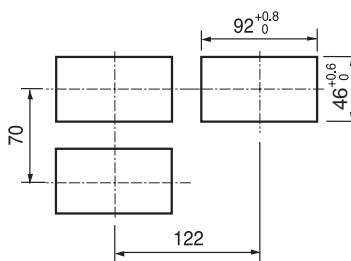
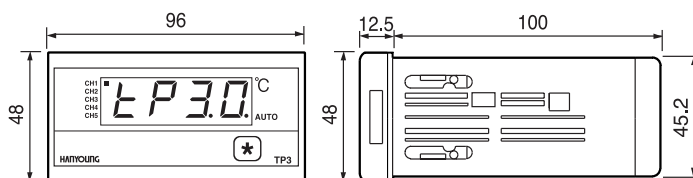
| Model              | Code  | Content                      |             |
|--------------------|-------|------------------------------|-------------|
| TP3                | □ □ □ | Size : 96 × 48 × 100 mm      | (Unit : mm) |
| Adjusting movement | 0     | Only for indication          |             |
| Input              | K     | K (-50 ~ 1200 °C)            | (CA)        |
|                    | J     | J (-50 ~ 800 °C)             | (IC)        |
|                    | R     | R (0 ~ 1700 °C)              | (PR)        |
|                    | P     | Pt 100 Ω (-100 ~ 400 °C)     | DIN Pt100   |
| Power              | P4    | 100 - 240 V a.c., 50 - 60 Hz |             |

### Specification

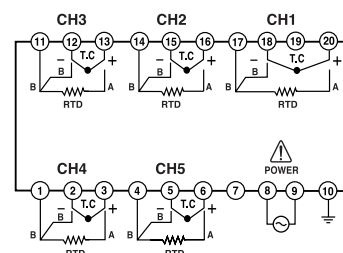
|                       |  |
|-----------------------|--|
| Power Voltage         | 100 - 240 V a.c.( ±10 %), 50 - 60 Hz   |
| Power Consumption     | Below 5 VA   |
| Input                 | thermo couple : K, J, R<br>R.T.D: DIN Pt100Ω   |
| Accuracy              | Thermo couple : ±0.5% of displayed value + 1 Digit or ±3 °C (Choose bigger value).<br>In case of using R input : 0 ~ 199 °C within : ±0.5 °C<br>R.T.D: ±0.5% of displayed value ±1 digit or ±2 °C (Choose bigger value). |
| Control               | Only for indication (5 Channel)  |
| Setting method        | Digital method by using selecting button (*)   |
| Product size          | 96 mm × 48 mm × 100 mm   |
| Other functions       | • Temperature display is automatic from channel 1 to 5 or temperature display of fixed channel.<br>• Revise temperature offset within each channel.  |
| AmbientTemp. Humidity | Below 0 °C ~ 50 °C / 35 ~ 85 % R.H.  |

### Dimensions and Panel Cutout

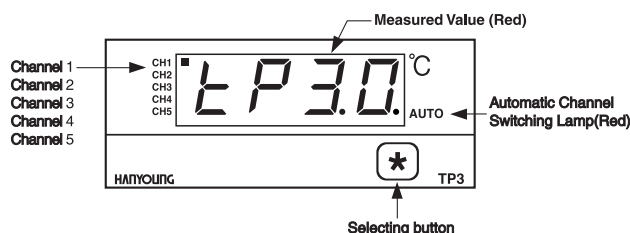
(Unit : mm)



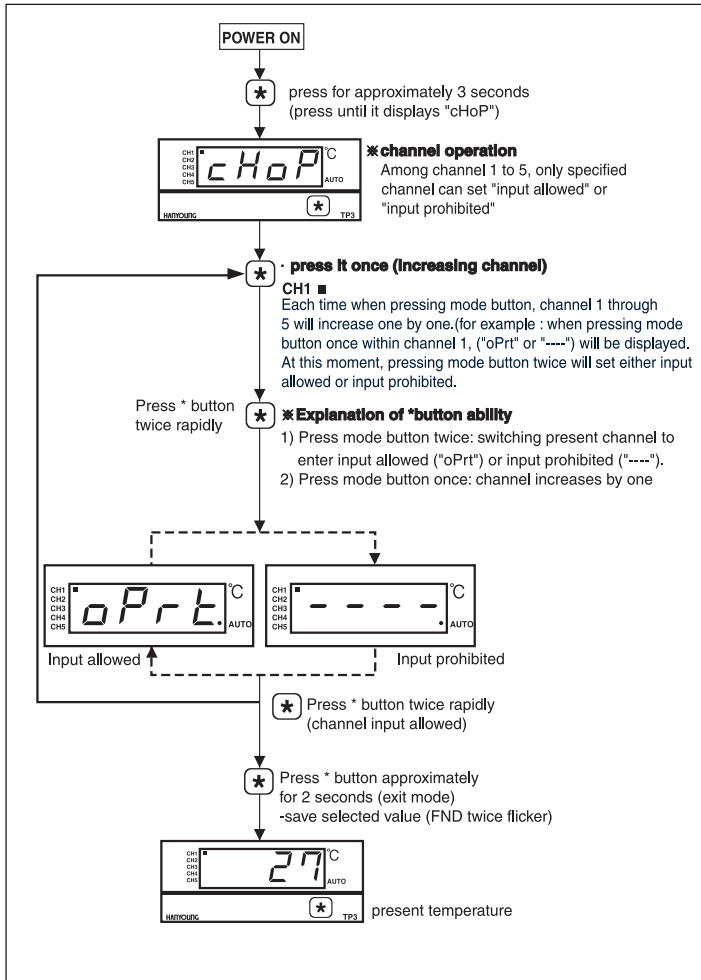
### Connections



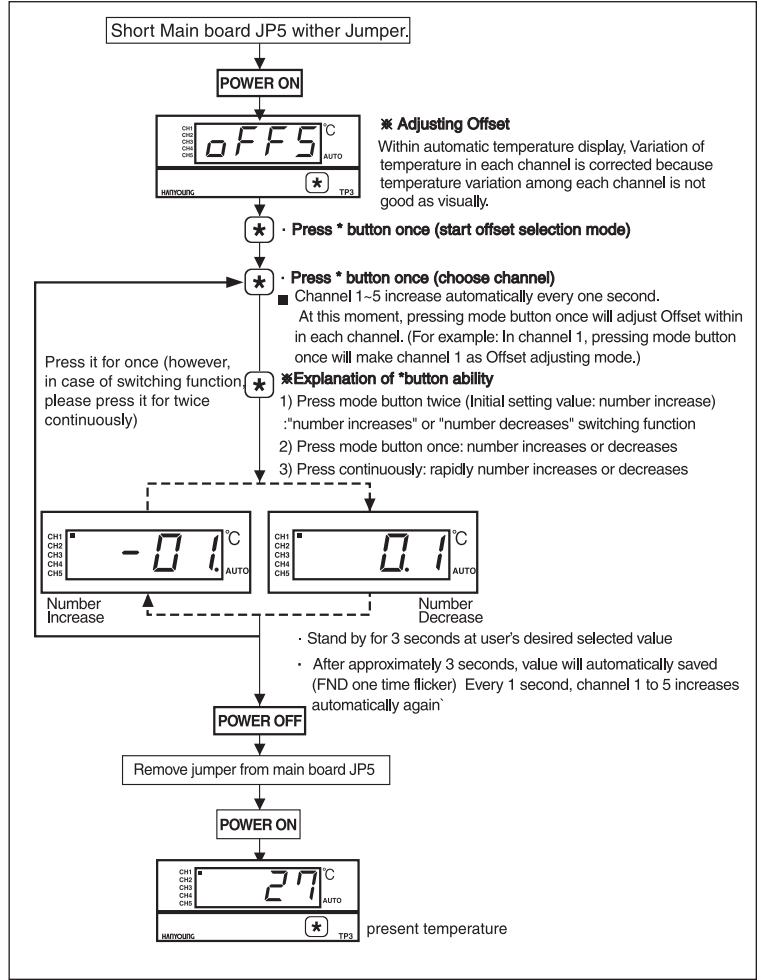
### Name Of Each Parts



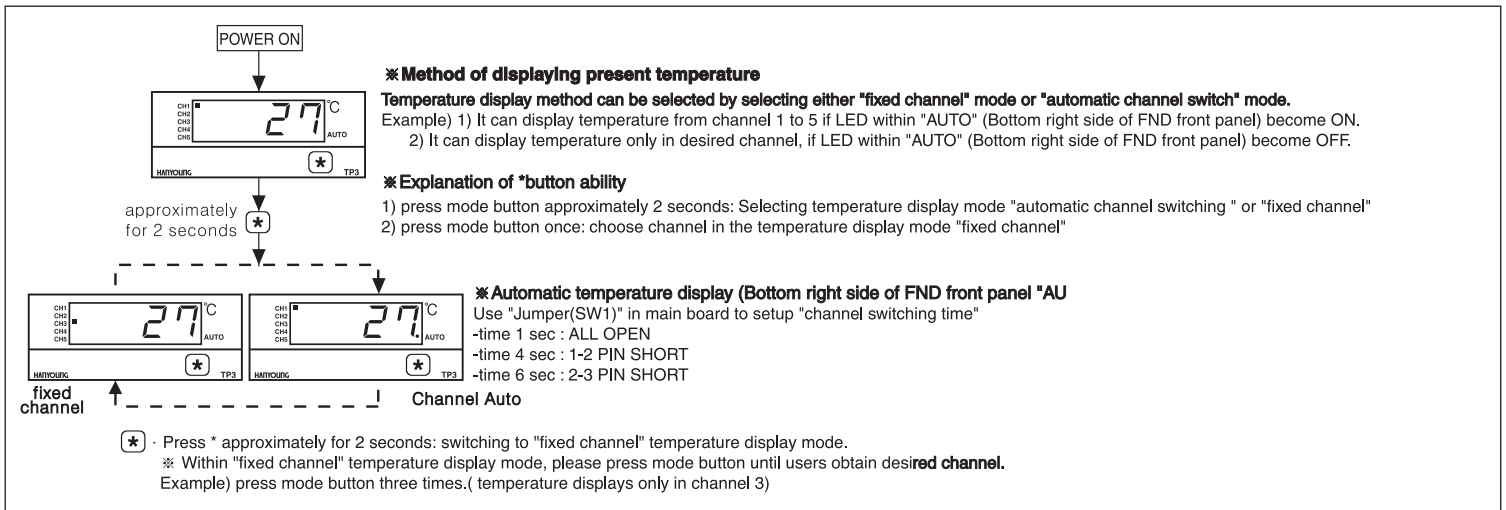
## Channel Operation Setting



## Adjusting Offset



## Channel Operation Setting



## Channel Operation Setting

- bovE** • Exceeding high temperature range
- oUr** • Exceeding low temperature range
- rEco** • Display back up when selected value changed (only when the first power on) or display back up when damaged
- LOSE** • Adjusted DATA damaged or bad adjusting