



## TAIE Controllers



Furnace Technologies supply and recommend TAIE Temperature Controllers which have a range to suit almost any application. Information following will help you select the best controller for your needs.

### Model & Suffix codes

| Model                    | Output1                       | Output2                     | Alarm         | TRS      | Remote SV | Commu-<br>nication | Input<br>Type   | Power        | Water/Dust<br>Proof |
|--------------------------|-------------------------------|-----------------------------|---------------|----------|-----------|--------------------|-----------------|--------------|---------------------|
| <b>FU48</b>              | <b>1</b>                      | <b>0</b>                    | <b>1</b>      | <b>0</b> | <b>0</b>  | <b>0</b>           | <b>02</b>       | <b>A</b>     | <b>N</b>            |
| <b>FU48</b> 48x48mm      | 0 None                        | 0 None                      | 0 None        | 0 None   | 0 None    | 0 None             | See Input Codes | A AC 85~265V | N None              |
| <b>FU72</b> 72x72mm      | 1 Relay                       | 1 Relay                     | 1 1 Set       | 1 4~20mA | 1 4~20mA  |                    |                 | D DC 24V     | W IP65              |
| <b>FU86</b> 48x96mm      | 2 Voltage Pulse (SSR Drive)   | 2 Voltage Pulse (SSR Drive) | 2 2 Sets      | 2 0~20mA | 2 0~20mA  |                    |                 |              |                     |
| <b>FU96</b> 96x96mm      | 3 4~20mA                      | 3 4~20mA                    | 3 3 Sets      | A 0~5V   | A 0~5V    | 3 TTL              |                 |              |                     |
| (STANDARD)               | 4 0~20mA                      | 4 0~20mA                    |               | B 0~10V  | B 0~10V   | A RS232_MODBUS     |                 |              |                     |
| <b>PFU48</b> 48x48mm     | A 0~5V                        | A 0~5V                      | A HBA*        | C 1~5V   | C 1~5V    | B RS485_MODBUS     |                 |              |                     |
| <b>PFU72</b> 72x72mm     | B 0~10V                       | B 0~10V                     | B HBA+AL2     | D 2~10V  | D 2~10V   |                    |                 |              |                     |
| <b>PFU86</b> 48x96mm     | C 1~5V                        | C 1~5V                      | C HBA+AL2+AL3 |          |           |                    |                 |              |                     |
| <b>PFU96</b> 96x96mm     | D 2~10V                       | D 2~10V                     |               |          |           |                    |                 |              |                     |
| (RAMP/SOAK Programmable) | 5 1 φ SCR zero cross control  |                             |               |          |           |                    |                 |              |                     |
|                          | 6 3 φ SCR zero cross control  |                             |               |          |           |                    |                 |              |                     |
|                          | 7 Motor valve control         |                             |               |          |           |                    |                 |              |                     |
|                          | 8 1 φ SCR phase angle control |                             |               |          |           |                    |                 |              |                     |
|                          | 9 3 φ SCR phase angle control |                             |               |          |           |                    |                 |              |                     |

\* : Block means optional functions with additional charge

\* HBA : Heater Break Alarm(HBA must use AL1 as alarm relay)  
Factory set value K2, code 02

\* TC Input(K, J, R, S, B, E, N, T, W, PL, I, U, L...), setting,  
can be changed to any types by user

\* RTD(JPT 100, PT100) setting,  
can be changed to any type by user

\* TC, RTD, LINEAR can be changed each other  
but need to change the parts of hardware.  
For more details, please contact local agents.



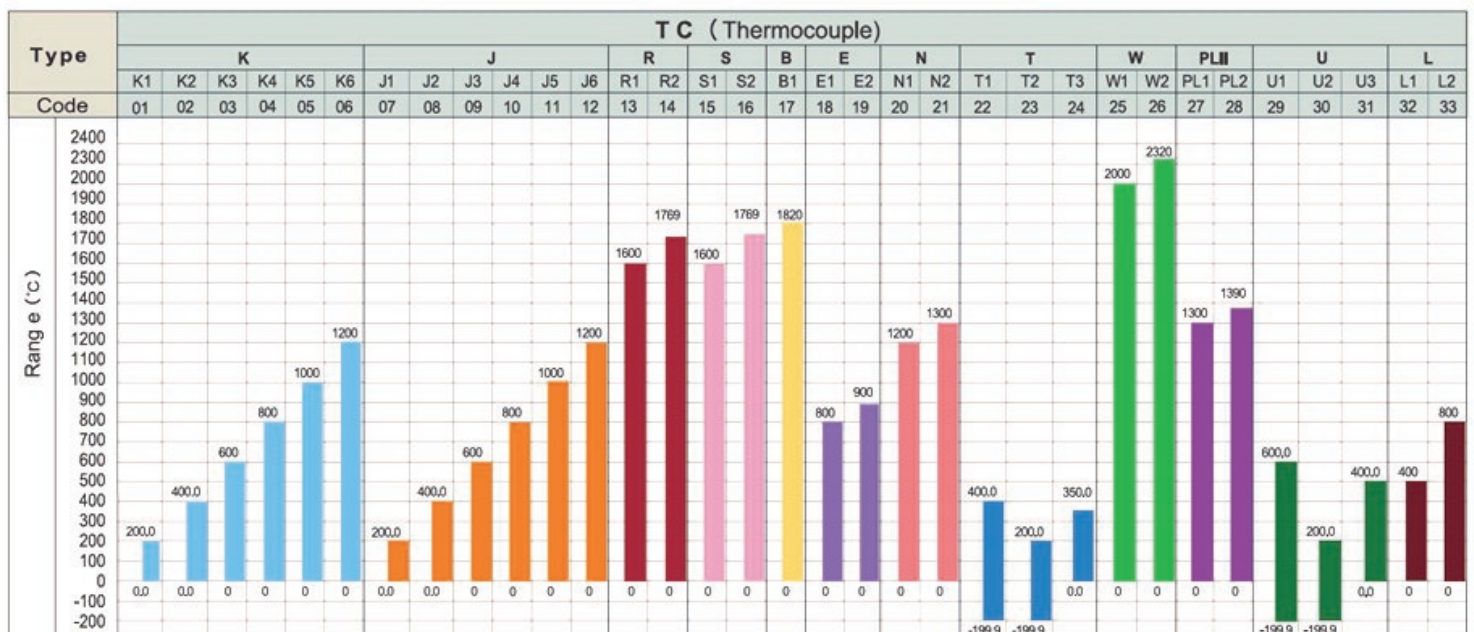
### Combination of options and models

| Options | RAMP/SOAK PROGRAM     | Output 1              |                       |                       |                       |                       | Output2               | Alarm2                | Alarm3                | HBA                   | Transmission          | Remote SV             | Communication         | DC 24V Power          |
|---------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Model   |                       | 1 $\phi$ SCR_Z        | 3 $\phi$ SCR_Z        | Motor valve control   | 1 $\phi$ SCR_P        | 3 $\phi$ SCR_P        |                       |                       |                       |                       |                       |                       |                       |                       |
| FU48    | <input type="radio"/> | <input type="radio"/> | —                     | <input type="radio"/> | —                     | —                     | <input type="radio"/> | <input type="radio"/> | —                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| FU72    | <input type="radio"/> | <input type="radio"/> | —                     | <input type="radio"/> | <input type="radio"/> | —                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| FU86    | <input type="radio"/> | —                     | —                     | <input type="radio"/> | <input type="radio"/> | —                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| FU96    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

☐ Available    — Not available

\* Remote SV function is not available, if HBA Function has been specified.

### Input Types



| Type       |      | R T D   |        |        |     |     |     |        |        |        |     |     |     |
|------------|------|---------|--------|--------|-----|-----|-----|--------|--------|--------|-----|-----|-----|
|            |      | JPT 100 |        |        |     |     |     | PT 100 |        |        |     |     |     |
|            |      | JP1     | JP2    | JP3    | JP4 | JP5 | JP6 | DP1    | DP2    | DP3    | DP4 | DP5 | DP6 |
| Code       |      | 41      | 42     | 43     | 44  | 45  | 46  | 47     | 48     | 49     | 50  | 51  | 52  |
| Range (°C) | 600  | 600.0   |        |        |     |     | 600 | 600.0  |        |        |     |     | 600 |
|            | 500  |         |        |        |     |     |     |        |        |        |     |     |     |
|            | 400  |         | 400.0  |        |     | 400 |     |        | 400.0  |        |     | 400 |     |
|            | 300  |         |        | 200.0  | 200 |     |     |        |        | 200.0  | 200 |     |     |
|            | 200  |         |        |        |     |     |     |        |        |        |     |     |     |
|            | 100  |         |        |        |     |     |     |        |        |        |     |     |     |
|            | 0    |         |        |        | 0   | 0   | 0   |        |        |        | 0   | 0   | 0   |
|            | -100 |         |        |        |     |     |     |        |        |        |     |     |     |
|            | -200 |         |        |        |     |     |     |        |        |        |     |     |     |
|            |      | -199.9  | -199.9 | -199.9 |     |     |     | -199.9 | -199.9 | -199.9 |     |     |     |



## TAIE Controllers

| Type   | Code   | Range    |
|--------|--------|----------|
| LINEAR | AN1 61 | -10~10mV |
|        | 62     | -2~2V    |
|        | 63     | -5~5V    |
|        | 64     | -10~10V  |
|        | AN2 71 | 0~10mV   |
|        | AN3 76 | 0~20mV   |
|        | AN4 81 | 0~50mV   |
|        | 82     | 0~20mA   |
|        | 83     | 0~1V     |
|        | 84     | 0~5V     |
|        | 85     | 0~10V    |
|        | 86     | 0~5K ohm |
|        | 87     | 0~2V     |
|        | AN5 91 | 10~50mV  |
|        | 92     | 4~20mA   |
|        | 93     | 1~5V     |
|        | 94     | 2~10V    |

-1999~9999  
or  
-199.9~999.9  
or  
-19.99~99.99  
or  
-1.999~9.999

