Temperature Controller

Simple Solution

SHINI

Temperature Controller (1 card in 1 zone)

Coding Principles

SH TC - XE S

- S → 1 card in 1 zone
- E → Zones (E Stands for Zones)
- TC → Temperature Controller
- SH → Shinno Hot Runner

Working Principle

The temperature controller is a device that can constantly maintain set temperature according to the set value of customer, which mainly detects the temperature of heating elements through the product's internal microprocessor (MCU), and then controls the thyristor or solid-state relay after being processed by the microprocessor's internal program to control the temperature.

Performance

- Power Input:AC110V-245V 50/60HZ
- Load: 15A,3300Wper zone
- Output type: PID (phase shift pulse width modulation)
- Thermocouple type: J or K type
- Temp. control range: 30℃-999℃
- Temp. stability: ±0.5%
- Temp. control type: FUZZY+PIDD intelligence control
- Auto ambient temp. compensation of internal measurement loop
- Soft start to eliminate mould leakage due to moisture
- Fuse:20A 6x30mm

Features

Standard Function

- LED display, Chinese/English alarm code
- All series of products have passed the CE certification
- Output break detection, output short circuit protection
- Manual power output mode
- Thermocouple and power cable wiring protection
- and alarm prompt
- 380V power input protection

Specifications

Dim. / Zones	W(mm)	D(mm)	H(mm)	Weight(kg)
1	130	303	230	4.8
2	220	303	230	9.1
3	270	303	230	10.9
4	320	303	230	11.5
6	420	303	230	16.3
8	520	303	230	21.6
10	620	303	230	24.5
12	420	303	470	27.6
16	520	303	470	35.8
20	620	303	470	43.3
24	520	303	670	50.2
30	620	303	670	61
32	520	303	870	73.5

SHTC - 12EDA

Temperature Controller (1 card in 2 zone)

Coding Principles

SH TC - xE DA

- 1 card in 2 zone (Digital tube display)
- Zones (E Stands for Zones)
- Temperature Controller
- Shinno Hot Runner

Performance

- Power input voltage: AC185V-245V, 50/60HZ.
- Load: 16A, 600W per zone.
- Output type: PHA (Phase Shift Pulse Width Modulation), OCR(solid sate).
- Thermocouple type: type J or K.
- Temperature control range:45-450℃.
- Temperature stability: +0.5%.
- Temperature control type: FUZZY+PIDD artificial intelligence AI+phase-shifting control.
- Auto ambient temperature compensation function of internal measurement loop.
- Soft start to eliminate mould leakage caused by moisture.
- F1:250-1A.
- F2:: 250V-16A

Features

Standard Functions

- SHTC-EDA has a small controller that is particularly suitable for production with limited space.
- LED display with Chinese/English alarm codes
- CE certification ready.
- Output break detection and short circuit protection
- Manual power output mode
- Thermocouple and power cable wiring protection with alarm
- 380V power input protection

Optional Functions

- The high-power module is capable of handling 7000-10000W of power each.
- Temperature controller cart (customizable)

Specifications

Dim. / Zones	W(mm)	D(mm)	H(mm)	Weight(kg)
2 Zone	130	310	190	9.2
4 Zone	180	310	190	11.7
6 Zone	230	310	190	14
8 Zone	280	310	190	18.8
10 Zone	375	310	190	22
12 Zone	425	310	190	26
16 Zone	325	310	355	35
20 Zone	375	310	355	40.25
24 Zone	425	310	420	45
32 Zone	425	345	585	93
48 Zone	425	345	750	109

SHTC - 12ED

Temperature Controller (1 card in 2 zone)

Coding Principles

SH TC - xE D

- 1 card in 2 zone (LCD display)
- Zones (E Stands for Zones)
- Temperature Controller
- Shinno Hot Runner

Performance

- Power input voltage: AC185V-245V, 50/60HZ.
- Load: 16A, 600W per zone.
- Output type: PHA (Phase Shift Pulse Width Modulation), OCR(solid sate).
- Thermocouple type: type J or K.
- Temperature control range:45-450℃.
- Temperature stability: +0.5%.
- Temperature control type: FUZZY+PIDD artificial intelligence AI+phase-shifting control.
- Auto ambient temperature compensation function of internal measurement loop.
- Soft start to eliminate mould leakage caused by moisture.
- F1:250-1A.
- F2:: 250V-16A

Features

Standard Functions

- SHTC-XED has a small controller that is particularly suitable for production with limited space
- Equipped with HARTING connector
- Chinese/English LCD display.
- CE certification ready.
- 380V power input protection
- Thermocouple and power cable wiring protection with alarm.
- All error codes are displayed in Chinese/English on the LCD display.
- Single-click to restore the factory default.

Optional Functions

- The single-click standby function can effectively prevent the plastics from carbonizing and yellowing
- The high-power module is capable of handling 7000-10000W of power each.
- Temperature controller cart (customizable)

Specifications

Dim. / Zones	W(mm)	D(mm)	H(mm)	Weight(kg)
2 Zone	130	310	190	9.2
4 Zone	180	310	190	11.7
6 Zone	230	310	190	14
8 Zone	280	310	190	18.8
10 Zone	375	310	190	22
12 Zone	425	310	190	26
16 Zone	325	310	355	35
20 Zone	375	310	355	40.25
24 Zone	425	310	420	45
32 Zone	425	345	585	93
48 Zone	425	345	750	109

Integrated Temperature Controller

Coding Principle

SH TC-xE M

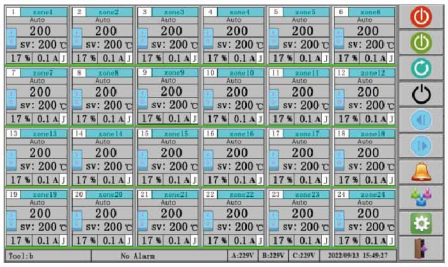
- M → Integrated
- E → Zones (E Stands for Zones)
- TC → Temperature Controller
- SH → Shinno Hot Runner

Features

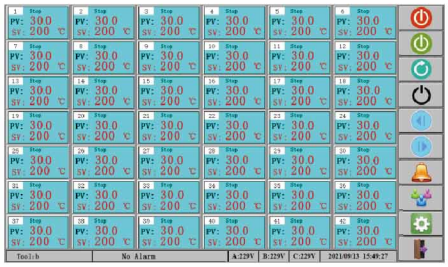
- An AI self-learning PID controller is used to achieve precise temperature control.
- The benefits of exceptional stability, robust adaptability, rapid heating, and consistently high temperatures.
- Multi-point touch control can zoom and display the temperature curve
- Current and output percentage display function
- Support alarm logs
- Support one-button temperature setting function, and multiple points can be set
- One-button standby function
- RS485 communication ready (Optional MODBUS-TCP/IP, MQTT, OPC-UA)

Optional Function

- Support linkage function with injection moulding machine



Operation Interface 1



Operation Interface 2

Product Functions

- Auto-PID/ manual dual control mode
- Soft start (dehumidifying) function
- Mould self-detection function
- Over-voltage shutdown
- Detection for thermocouple break
- Heater current monitoring
- Temperature deviation alarm (ultra-high temp., ultra-low temperature)
- Overload alarm
- Heater wire break/short circuit monitoring
- Sensor detection function

Performance

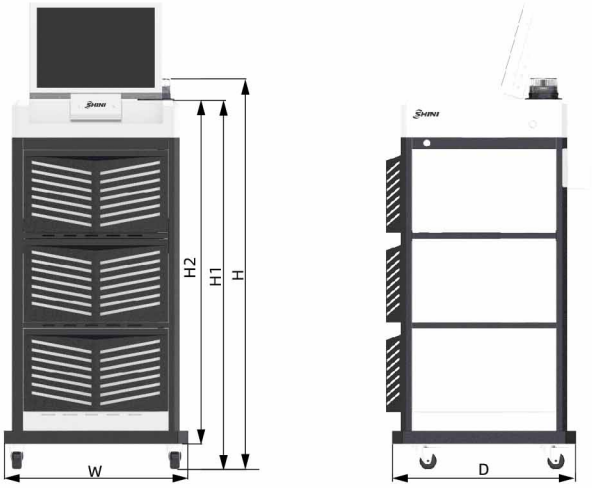
- Power Input:AC110V-245V 50/60HZ
- Load: 20A, 3600W per zone
- Output type: Output type: zero crossing trigger/phase angle adjustment
- Thermocouple type: J or K type
- Temp. control range: 0-500℃
- Temp. stability: ±0.5%
- Temp. control type: PID intelligence control
- Auto ambient temp. compensation of internal measurement loop
- Soft start to eliminate mould leakage due to moisture
- Fuse: 250V-20A

Application

SHTC-EM series of touch-panel temperature controller can control the temp. of 12 to 126 zones, and several of the units can be connected through the RS485 or Ethernet interface to achieve centralized monitoring function. It supports the setting of multiple groups' control at one time that simplifies the operation processes.

Besides, with additional and practical current detecting functions, the unit is especially suitable for automobile industry, PET preform injection molding, medical consumables and other applications to realize one-stop control, and bring more benefits to this industry.

Outline Drawings



Specifications

Model SHTC-		12EM	24EM	36EM	48EM	60EM	72EM	90EM	108EM	126EM
Display Size(Inch)		10.2								
Dimension	H(mm)	577	785	995	1205	1415	1625	1415	1625	1835
	W(mm)	430	430	430	430	430	430	445	445	445
	D(mm)	450	450	450	450	450	450	450	450	450
	H1(mm)	522	730	940	1150	1360	1570	1360	1570	1780
	H2(mm)	412	620	830	1040	1250	1460	1250	1460	1670
Weight(kg)		42	45.74	59.4	73	95	108	135	165	189

We reserve the right to change specifications without prior notice.

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