



HOT RUNNER CONTROLLER

- Temperature controller
- Sequence valve gate controller
- Hot runner cables
- Heavy connectors
- Hot runner accessories
- PID process controller

Company Profile

Tinko Instrument (Suzhou) Co., Ltd. was established in 2001. We are a high-tech company specialized in designing, manufacturing and selling all kinds of hot runner controllers and accessories for plastic injection molding industry.

Relying on professional technology and modern management, we develop and produce hot runner products and related accessories with high quality and excellent reliability.

We are willing to provide you with continuous technical support and after-sale services, establish a long-term strategic partnership with you. Let's work each other and create a better future.



INGER CERTIFICATION ASSESSMENT SERVICES



MANAGEMENT SYSTEM CERTIFICATE

Certificate No.: 117 16 QU 0014-11 R03
This is to certify the quality management systems of
Tinko Instrument (Suzhou) Co., Ltd.
Unified Social Credit Code: 91320594730135716X
Location: Building No. 5, Lianfa Industrial Park, No. 199
Tongyuan Road, SIP, Suzhou, China

has been assessed and registered as meeting the requirements of
GB/T 19001-2016/ISO 9001:2015
Scope of approval:
R & D, Production and Sales of Temperature & Humidity
Controller, Temperature & Humidity Sensor, Transmitter, Hot
Runner Controller (Excluding the Products Refer to License)

Signed by:  

First Certification: 01 Nov. 2016
Expiry Date: 31 Oct. 2019
Revision: 01
Date: 19 Oct. 2018

Shanghai Inger Certification Assessment Co., Ltd.
Certification and Accreditation Administration of P.R.China (CMA) No. 2008 117
Tel: 400-020-0990 / 021-50114799
Web: www.inger.cn
Add: Room 801, Building 18, No. 2888, Puxia Dongchuan Rd.,
Kunshan District, Suzhou, China 215000



The authority of the institution belongs to Shanghai Inger Certification Assessment Co., Ltd. The information & validity of the certificate can be checked on the CMA website (WWW.CMA.CN) or by contacting the service center. The certificate is only valid when used together with the related products when approved. If the organization can't effectively maintain the above management system, such that the right to withdraw the qualification certificate.

CERTIFICATE



CERTIFICATE

Of Conformity
EU Council Directive 2014/30/EU
Electromagnetic Compatibility
Registration No.: AT0517030055E
Report No.: R0517030055E

Applicant: Tinko Instrument (Suzhou) Co., Ltd.
Building No.5, Lianfa Industrial Park, No.199 Tongyuan Road,
SIP, Suzhou, China

Product: Hot Runner Temperature Controller

Identification: Model No.: HRTC-01F
Trade Mark: N.A.
Rating: 1D 3 wire 85-265VAC, 50/60Hz, 3000W

Test Standards: EN 61326-1:2013
EN 61000-3-2:2014
EN 61000-3-3:2013

The certificate of conformity is based on an evaluation of a sample of the above-mentioned product. Technical report and documentation are at the applicant's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex II of Council Directive 2014/30/EU, in its latest amended version, referred to EMC Directive. The certificate does not imply assessment of the production and does not permit the use of Lab's logo. The applicant of the certificate is authorized to use this certificate in connection with EU declaration of conformity to Article 16 of the Directive.

CE Marking may only be used if all relevant and effective EU Directives are complied with

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CE

CERTIFICATE



CERTIFICATE

Of Conformity
EC Council Directive 2004/108/EC
Electromagnetic Compatibility
Registration No.: AT1401651E
Report No.: 201401711E

Applicant: Tinko Instrument (Suzhou) Co., Ltd.
Building 5, Lianfa Industrial Park, No. 199 Tongyuan Road, SIP,
Suzhou, China

Product: Hot Runner Temperature Control Mainframe

Identification: Model No.: HRTC-02A, HRTC-04A, HRTC-06A,
HRTC-08A, HRTC-10A, HRTC-12A,
HRTC-12D, HRTC-16D, HRTC-24D

Trade Mark: N.A.
Rating: 3D 3 wire 385-415VAC(swing mode A), or
3D 4 wire 200-240VAC(swing mode B), or
1D 3 wire 200-240VAC(swing mode C), or
1D 4 wire 110-120VAC(swing mode D),
50/60Hz, 3780W/2200W

Test Standards: EN 61326-1:2006
EN 61000-3-2:2006+A1:2009+A2:2009
EN 61000-3-3:2006

The certificate of conformity is based on an evaluation of a sample of the above-mentioned product. Technical report and documentation are at the applicant's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex II of Council Directive 2004/108/EC, in its latest amended version, referred to EMC Directive. The certificate does not imply assessment of the production and does not permit the use of Lab's logo. The applicant of the certificate is authorized to use this certificate in connection with EC declaration of conformity to Article 16.1 of the Directive.

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CE

M20 Hot Runner Controller



M20-MH

Features

- Full color 10" size LCD touch screen HMI
- Adjustable and foldable HMI (MH Series)
- AI PID control, more optimized algorithm
- Dehumidify soft start, protects machine
- T/C fault solution, reduce downtime significantly
- Synchronized temperature raising and lowering
- Sequential startup, enable injection efficiently
- Interact with injection machine, improve operation
- Heater remaining life indicator
- Heater leakage detection and indicator
- Plastic leak detection, help reduce repair cost & downtime
- Voltage control optional, meet precise control needs

Function

- User management with different authority
- Tool data can be modified, loaded and uploaded
- Historical temp data can be import and export by USB disk
- Communication: MODBUS, MQTT, OPC-UA, VNC
- Thermocouple open, reverse, break alarm
- Heater open, short, overload alarm
- Fuse blown alarm
- Multi Alarm & Protection functions, safer production
- Stop the injection molding machine remotely (optional)
- Standby the injection molding machine remotely (optional)
- All zones' temperature in tolerance output (optional)
- Alarm output function (optional)



M20-SH

M20 Hot Runner Controller

Features

- Auto/Manual mode
- Zone name can be editable
- Internal alarm buzzer
- Start-up interface logo can be customized
- Current, output percentage display on screen
- Two zones per module at 15 Amps per zone
- Interchangeable module design, easy for maintenance
- Group setup, easy to operate multi zones
- Browse operation logs and alarm records online
- Temp control + Valve gate control combo optional
- SVG Screw position control available, more precise
- Integrated design with external heat sink, reduces downtime



M20-M

Function

- HMI can be split if needed
- Phase angle and zero cross mode can be selectable
- Communication: MODBUS, MQTT, OPC-UA, VNC
- Plastic leak detection function
- Thermocouple open, reverse, break alarm
- Heater open, short, overload alarm
- Fuse blown alarm
- Stop the injection molding machine remotely (optional)
- Standby the injection molding machine remotely (optional)
- All zones' temperature in tolerance output (optional)
- Alarm output function (optional)
- Any alarm or selected alarm output



M20-S

LCD Hot Runner Controller



TGC series

Features

- LCD display
- Excellent and stable control accuracy
- Dehumidify soft start, extend heater life
- Alarm output optional, interact with injection machine
- Remote standby function, energy saving
- Communication with facility, intelligent production
- Stable structure, reliable performance
- Standard cabinet, compatible with other brands
- 1-24 zone available
- CE certificate

Function

- Auto mode: PID auto-tuning
- Manual mode: data saving after power restart
- Boost function: increase output % shortly as needed
- Output current limit setting, protect machine
- Phase angle and zero cross mode can be selectable
- RS485 communication: MODBUS, MQTT
- Thermocouple open, reverse, short alarm
- Heater open, short, overload alarm
- Triac damage protection
- Over voltage protection function
- Multi Alarm & Protection functions, safer production



TNC series

LED Hot Runner Controller

Features

- LED display
- Excellent and stable control accuracy
- Dehumidify soft start, extend heater life
- Fan built-in for heat radiation
- Stackable design, save installation space
- Stable structure, reliable performance
- Standard cabinet, compatible with other brands
- Terminals and wires crimped by auto machine
- 1-24 zone available
- CE certificate



TBC series



TCC series

Function

- Fuzzy PID auto control
- Manual mode once sensor damaged
- Boost function to increase output shortly as needed
- Output current limit setting, protect machine
- Phase angle and zero cross mode can be selectable
- Thermocouple open, reverse, short alarm
- Heater open, short, overload alarm
- Triac damage protection
- Over voltage protection function
- Multi Alarm & Protection functions, safer production

Dual Zone Hot Runner Controller



TFC series

Features

- LED display
- Dual zone per module, save space
- Max 15 amps for each zone
- Independent operation, no mutual interference
- Dehumidify soft start, extend heater life
- Fan built-in for heat radiation
- Stackable design, save installation space
- Terminals and wires crimped by auto machine
- More economic and affordable
- 2-48 zone available

Function

- PID auto control
- Manual mode once sensor damaged
- Boost function to increase output % shortly as needed
- Output current limit setting, protect machine
- Phase angle and zero cross mode can be selectable
- Thermocouple open, reverse, short alarm
- Heater open, short, overload alarm
- Triac damage protection
- Over voltage protection function
- Multi Alarm & Protection functions, safer production



TFC series

LCD Hot Runner Controller

Features

- LCD display
- Excellent and stable control accuracy
- Dehumidify soft start, extend heater life
- Alarm output optional, interact with injection machine
- Remote standby function, energy saving
- Stable structure, reliable performance
- Stackable design, save installation space
- Collocate with mainframe floor stand
- Compatible with DME modules and mainframes
- 5, 8, 12 zone available



WGC series



WGC series

Function

- Fuzzy PID auto control
- Manual mode once sensor damaged
- Output current limit setting, protect machine
- Phase angle or zero cross mode is selectable
- RS485 communication: MODBUS, MQTT
- Thermocouple open, reverse, short alarm
- Heater open, short, overload alarm
- Fuse blown alarm
- Triac damage protection
- Over voltage protection function
- Multi Alarm & Protection, safer production

M10 Hot Runner Controller

Features



- Aluminum alloy case, small size
- Modular design, easy to assemble and maintain
- AI PID control, more optimized algorithm
- LCD screen, display output voltage, frequency, power %
- Temp control, voltage control, valve gate control available
- One-key start/stop, synchronously set parameters
- RS485 communication, apply to Industry 4.0
- Heater remaining life indicator
- Heater leakage detection and indicator
- Plastic leak detection, help reduce repair cost & downtime
- Auto recognize the heater power, self-adjusting control
- Alarm output, remote standby functions are optional

TSC Hot Runner Controller

Features

- Compact stand alone cabinet design
- Small and light, easy to operate
- LED display
- AI PID control, more optimized algorithm
- Dehumidify soft start, extend heater life
- Thermocouple open, reverse, short alarm
- Heater open, short, overload alarm
- Multi Alarm & Protection functions, safer production
- Smart & economical for hot runner system
- Suitable for 1-2 zone temperature control




TSC-01



TSC-02

Temperature Control Module

Model	HRTC-G1	HRTC-B1	HRTC-C1	HRTC-N1	HRTC-F2 (2-zone)
Reference Picture					
Display Unit	LCD	LED	LED	LCD	LED
PV Resolution	1 / 0.1	1	1	1 / 0.1	1
Working Status	Words	Indicator	Indicator	Words	Indicator
Input	J / K	J / K	J / K	J / K	J / K
Measurement Range	0~550°C	0~550°C	0~550°C	0~550°C	0~550°C
Output	Triac 40A	Triac 40A	Triac 40A	Triac 40A	Triac 40A/zone
Load Capability	Max.15A	Max.15A	Max.15A	Max.15A	Max.15A/zone
Control	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual
Control Accuracy	±0.5°C	±0.5°C	±0.5°C	±0.5°C	±0.5°C
PID Auto-Tune/Self-adjusting	•	•	•	•	•
Soft Start	•	•	•	•	•
Boost	•	•	•	•	×
Standby Mode	•	•	•	•	•
Load Current / Output % Limit	•	•	•	•	•
Alarm & Protection					
High / Low Temperature	•	•	•	•	•
T/C Open / Reversed / Shorted	•	•	•	•	•
Misconnection of T/C & Heater	•	•	•	•	•
Fuse blown	•	•	×	×	•
Heater Open / Shorted	•	•	•	•	•
Over Rated-load	•	•	•	•	•
Triac Breakdown	•	•	•	•	•
Over Voltage	•	•	•	•	•
High Ambient Temperature	•	•	•	•	•
Alarm Output	○	×	×	○	×
Remote Standby Input	○	○	×	×	×
Communication (RS485)	○	×	×	×	×

Comments • Yes × No ○ Optional

Sequence Valve Gate Controller



Modular type SVG controller

- Number of modules based on requirements
- Easy to operate and maintain
- Real time display of valve open / close time
- Time display mode: 0.1s or 0.01s
- Two auto modes to meet different control needs
- Manual mode is convenient for mold debugging
- Fit for pneumatic and hydraulic valve
- Connector type can be customized
- Mainframe for 1-24 modules can be selected

Integrated SVG controller

- 8-gates control, small size
- D600 is cost-effective
- D800 has intuitive interface, easy to operate
- Real time display of valve open / close time & status
- Three auto modes to meet different control needs
- Manual mode is convenient for mold debugging
- Injection signal can be 24Vdc or dry contact
- Output signal can be 24Vdc, 220Vac or dry contact
- For pneumatic or hydraulic valve can be selected
- Hook type, convenient and saving space



D600



D800

Hot Runner Control Cable

Zones	Thermocouple cable	Mold Power cable	Combo cable
1			 <p>MPTC-01-03</p>
4			 <p>MPTC-04-03</p>
5	 <p>THC-05-03</p>	 <p>PWC-05-03</p>	
6			 <p>MPTC-06-03</p>
8	 <p>THC-08-03</p>	 <p>PWC-08-03</p>	
12	 <p>THC-12-03</p>	 <p>PWC-12-03</p>	
Customize			

Note: Connector type, wiring mode, and cable length can be customized.

Heavy Connectors

HA Series 5 Pin					
	HA-004-M	HA-004-F	H3A-HB-1L	H3A-TO-2B-PG11	
HE Series 10 Pin					
	HE-010-M	HE-010-F	H10B-TOH-2B-PG21	H10B-TOH-4B-PG21	H10B-TOH-2L-PG21
					
	H10B-SOH-2B-PG21	H10B-SOH-4B-PG21	H10B-SOH-2L-PG21	H10B-HB-1L	H10B-HB-2L
HE Series 16 Pin					
	HE-016-M	HE-016-F	H16B-TOH-2B-PG21	H16B-TOH-4B-PG21	H16B-TOH-2L-PG21
					
	H16B-SOH-2B-PG21	H16B-SOH-4B-PG21	H16B-SOH-2L-PG21	H16B-HB-1L	H16B-HB-2L
HE Series 24 Pin					
	HE-024-M	HE-024-F	H24B-TOH-2B-PG29	H24B-TOH-4B-PG29	H24B-TOH-2L-PG29
					
	H24B-SOH-2B-PG29	H24B-SOH-4B-PG29	H24B-SOH-2L-PG29	H24B-HB-1L	H24B-HB-2L
HD Series 25 Pin					
	HD-025-M	HD-025-F	H16A-TO-2B-PG21	H16A-HA-1L	

Terminal Boxes

<p>TB-D0505 for 4 pin or 5 pin connectors</p>	<p>TB-D0025 for 25 pin connector</p>	<p>TB-D0024 for 16 pin or 24 pin connector</p>
		
<p>TB-D1025 for 10 pin + 25 pin connectors</p>	<p>TB-D1625 for 16 pin + 25 pin connectors</p>	<p>TB-D2425 for 24 pin + 25 pin connectors</p>
		

Mainframe Floor Stand



Item No.	Description
MFS-05	for 5 zone W*C controller
MFS-0812	for 8 & 12 zone W*C controller
TMFS-08	for 1-8 zone T*C controller
TMFS-12	for 10-12 zone T*C controller

CTL Series Temperature Controller



Features

- Strong anti-interference ability
- Universal input signal types
- Different output types are available
- Multiple alarm types for different applications
- Stable and reliable performance
- Fuzzy PID, control fast & smooth
- Thermocouple/RTD break alarm
- Thermocouple inverse / RTD short alarm
- PV bias, PID auto-tuning, alarm delay, etc.
- Special type for hot runner control is provided

Ordering Code

CTL - □ F □□□ - □ - □ - □ - CC
 ① ② ③ ④ ⑤

No.	Name	Description		
①	Panel Size (Width*Height)	4: 48mm*48mm 7: 72mm*72mm	5: 48mm*96mm 9: 96mm*96mm	6: 96mm*48mm
②	Input Signal	K03: K(-50~999°C) J03: J(-50~999°C) P03: Pt100(-20~580°C)	E03: E(-50~800°C) T03: T(-50~400°C) P06: Pt100(-19.9~99.9°C)	
③	Control Output	M: Relay contact (AC250V, 3A) V: SSR Drive (Voltage pulse) 8: DC 4~20mA		
④	Alarm	N: None MM: Relay contact *2	M: Relay contact *1 MMM: Relay contact *3	
⑤	RS485	N: None C1: Rs485, Modbus RTU		



Tinko[®]
Hot Runner Control Expert

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