profiTEMP IM
HOT RUNNER CONTROLLER

- » Powerful hot runner controller for all hot runner systems
- » 12 control zones in desktop housing
- » Precise temperature control ensures improved part quality
- » Fast control algorithm shortens the heating phase and increases the operating time
- » Clear, user-friendly touch screen user interface
- » Self-explanatory operation – no training or instruction required
- » Globally applicable – user interface available in 14 languages
- » Extremely compact – fits anywhere
- » Lightweight and portable
- » Easy maintenance – the heater fuses are accessible from the outside

FUNCTIONS

- » PID control algorithm optimised for the application
- » Automatic calculation of the control parameters (identification)
- » 7" touch screen, 14 selectable languages
- » All process information is visible at a glance
- » Zones can be grouped, facilitating zone selection
- » Password-protected access for set-up technicians
- » One of four heating variants can be selected for all zones
  - Direct setpoint change
  - Start-up mode for drying out the heaters' insulation material
  - Automatic ramp for joint, uniform heating of all zones
  - Relay heating for heating sequence of grouped zones
- » One of five operating modes can be selected separately for each zone
  - Control to the specified temperature setpoint
  - Manual mode for manual setting of the output level
  - Control to take over the output level of another zone
  - Monitoring – display and monitoring of the temperature in zones without heating
  - Display – zone without heating to display the temperature
- » Temperature reduction (standby)
- » Boost (optionally with timer) for emptying the nozzle zones before production start
- » Automatic switchover to control zone mode or manual mode in the event of a defect in the sensor circuit
- » Monitoring and alarm signalling
  - Temperature limits
  - Thermocouple and thermo line for cable break, polarity reversal and short circuit
  - Heating (tolerance, failure, short circuit)
  - Safety shutdown on detection of short-circuit triacs
  - Leakage currents
  - Predictive detection of leakages in the mould (process monitoring)
- » Display of heating currents/power per zone, per phase and for the entire zones
- » Monitor electricity consumption with the electricity meter
- » Potential-free alarm contact and digital input (functions configurable)
- » Smart Power Limitation – exact limitation of power output in the event of mains connection overload
- » Possibility to save mould programs
- » Free software updates – can be installed via USB
- » Data interface: Ethernet (OPC 40082-2) for communication with the injection moulding machine

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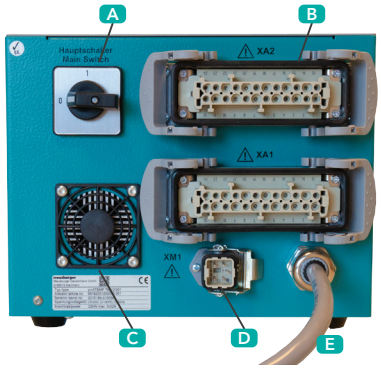
VIEWS

A USB port
B Ethernet connection
C 7″ touch screen
D Heater fuses
E Control fuse



A Power supply switch
B Mould connection
C Fan
D Alarm output/digital input
E Mains connection

*MOULD CONNECTION PIN ASSIGNMENT

Pin assignment MEU/001

	Con-nector	Sensor		Heater	
		-	+	L	N
Zone 1	XA1	1	2	3	4
Zone 2	XA1	5	6	7	8
Zone 3	XA1	9	10	11	12
Zone 4	XA1	13	14	15	16
Zone 5	XA1	17	18	19	20
Zone 6	XA1	21	22	23	24
Zone 7	XA2	1	2	3	4
Zone 8	XA2	5	6	7	8
Zone 9	XA2	9	10	11	12
Zone 10	XA2	13	14	15	16
Zone 11	XA2	17	18	19	20
Zone 12	XA2	21	22	23	24

Pin assignment 121

	Con-nector	Sensor		Heater	
		-	+	L	N
Zone 1	XA1	14	13	1	2
Zone 2	XA1	16	15	3	4
Zone 3	XA1	18	17	5	6
Zone 4	XA1	20	19	7	8
Zone 5	XA1	22	21	9	10
Zone 6	XA1	24	23	11	12
Zone 7	XA2	14	13	1	2
Zone 8	XA2	16	15	3	4
Zone 9	XA2	18	17	5	6
Zone 10	XA2	20	19	7	8
Zone 11	XA2	22	21	9	10
Zone 12	XA2	24	23	11	12

Pin assignment 522

	Con-nec-tor	Sensor			Con-nec-tor	Heater	
		-	+			L	N
Zone 1	XA1	13	1		XA2	1	13
Zone 2	XA1	14	2		XA2	2	14
Zone 3	XA1	15	3		XA2	3	15
Zone 4	XA1	16	4		XA2	4	16
Zone 5	XA1	17	5		XA2	5	17
Zone 6	XA1	18	6		XA2	6	18
Zone 7	XA1	19	7		XA2	7	19
Zone 8	XA1	20	8		XA2	8	20
Zone 9	XA1	21	9		XA2	9	21
Zone 10	XA1	22	10		XA2	10	22
Zone 11	XA1	23	11		XA2	11	23
Zone 12	XA1	24	12		XA2	12	24

DEVICE VERSIONS

Designation	Mould connection Pin assignment*
RH 1200/12/001/WI24B/32A	MEU/001
RH 1200/12/121/WI24B/32A	121
RH 1200/12/522/WI24B/32A	522

Further pin assignments via adapter connecting cable.

ACCESSORIES

Designation	Product
RHZ 5000/500/16/FF	Fuses SIBA type 7012540.16 FF
RHZ 2000/3/001/WI24B/S/M/001/WI24B/B/S	Connecting cable, heater/thermocouple, pin assignment MEU/001, 3 m
RHZ 2000/6/001/WI24B/S/M/001/WI24B/B/S	Connecting cable, heater/thermocouple, pin assignment MEU/001, 6 m
RHZ 2000/3/121/WI24B/S/M/121/WI24B/B/S	Connecting cable, heater/thermocouple, pin assignment 121, 3 m
RHZ 2000/6/121/WI24B/S/M/121/WI24B/B/S	Connecting cable, heater/thermocouple, pin assignment 121, 6 m
RHZ 2100/3/522/WI24B/S/M/522/WI24B/B/S	Connecting cable, heater, pin assignment 522, 3 m
RHZ 2100/6/522/WI24B/S/M/522/WI24B/B/S	Connecting cable, heater, pin assignment 522, 6 m
RHZ 2200/3/522/WI24B/B/M/522/WI24B/S/S	Connecting cable, thermocouple, pin assignment 522, 3 m
RHZ 2200/6/522/WI24B/B/M/522/WI24B/S/S	Connecting cable, thermocouple, pin assignment 522, 6 m
RHZ 2400/3/522/WI24B/S/M/620/HA16B/B/S	Connecting cable, heater, pin assignment 522 to 620 (EUROMAP 14), 3 m
RHZ 2400/6/522/WI24B/S/M/620/HA16B/B/S	Connecting cable, heater, pin assignment 522 to 620 (EUROMAP 14), 6 m
RHZ 2400/3/522/WI24B/B/M/620/HA16A/S/S	Connecting cable, thermocouple, pin assignment 522 to 620 (EUROMAP 14), 3 m
RHZ 2400/6/522/WI24B/B/M/620/HA16A/S/S	Connecting cable, thermocouple, pin assignment 522 to 620 (EUROMAP 14), 6 m
RHZ 1000/S	profiTEMP device cart
RHZ 3000/32A/16A	CEE adapter 16 A connector to 32 A coupler

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TECHNICAL SPECIFICATIONS

Mains supply

400 VAC (~/N = 230 VAC) 3~/N/PE, 50/60 Hz

Mains connection

CEE 32 A, 3 m

Operation and display

7“ IPS panel with capacitive touch screen, integrated in the front of the device

Languages: German, English, Spanish, Italian, Polish, Portuguese, French, Chinese, Czech, Hungarian, Dutch, Bulgarian, Greek, Turkish

Sensor inputs

Thermocouple Fe/CuNi type J (-35–500°C) with internal reference measuring junction

Measuring precision < 1K

Cable length to thermal sensor < 30m

Heating outputs (information per zone)

230 VAC / 15 A (3450 W) at 20 °C environment

230 VAC / 14.5 A (3335 W) at 45 °C environment (derating fuse)

Fuse protection with super-fast fuses FF 16 A, 6.3 x 32 mm (SIBA type 7012540.16 FF)

Cable length to heaters < 30 m

Alarm output

Potential-free alarm contact,
can handle loads up to 230 VAC / 1 A

Digital input

0–30 VDC
LowPegel 0–1 VDC, High Pegel 4–30 VDC

I_{max} = 12 mA at 30 VDC

Mould connection

Connector: Wieland WI 70.300.2440.0
Surface-mounted housing with double locking latches, insert 24 contacts, size 24B

Heating current measurement

Measuring range 0 to 16 A per power output

Resolution 0.1 A (accuracy +/- 0.1 A)

Leakage current measurement

Measuring range 0–100 mA

Resolution 1 mA

Interfaces

1 x USB type A (backup of mould programs, firmware update)

1 x Ethernet RJ45, IP address adjustable (OPC 40082-2)

Electr. safety / EMC

Electrical safety: EN 61010-1:2010 + A1:2019 + AC:2019

EMC: emitted interference according to EN 61000-6-4, interference immunity according to EN 61000-6-2

Over-voltage category II

Ingress protection I

Ingress protection class IP20

Installation altitude above sea level max. 2000 m

Ambient temperature

Operation at 0–45 °C

Transport and storage -20–70 °C

Climate application class

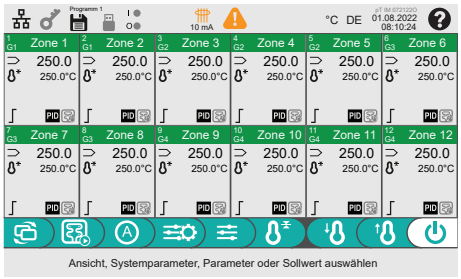
Relative humidity < 75% annual average, no condensation

Mechanics

Dimensions: 215 x 260 x 400 (H x W x D in mm)

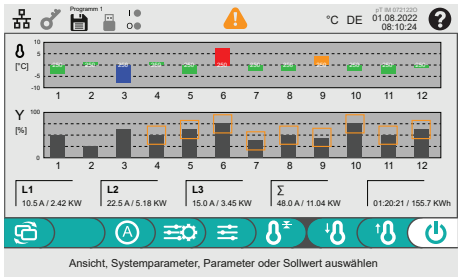
Weight: 9.8 kg

SCREEN VIEWS



Ansicht, Systemparameter, Parameter oder Sollwert auswählen

All process data and status information presented clearly at a glance



Ansicht, Systemparameter, Parameter oder Sollwert auswählen

Display of the control deviation, the output level, the process monitoring window for each control zone, as well as the power output and the electricity meter.

Zonen und Parameter auswählen und Wert einstellen

User-friendly screen layouts for entering the setting parameters

V1 10/22 EN

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