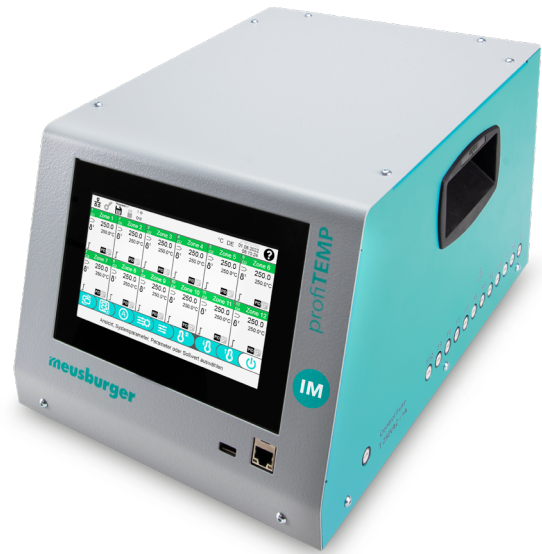


# profiTEMP IM

## HOT RUNNER CONTROLLER

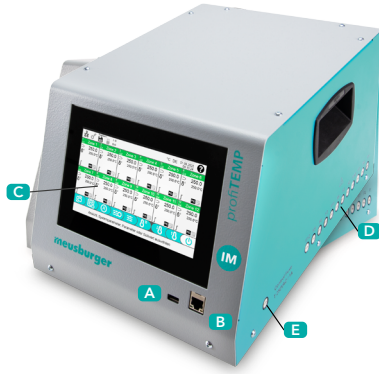
- » Powerful hot runner controller for all hot runner systems
- » 12 control zones in desktop housing
- » Precise temperature control ensures improved part quality
- » Fast control algorithm shortens the heating phase and increases the operating time
- » Clear, user-friendly touch screen user interface
- » 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



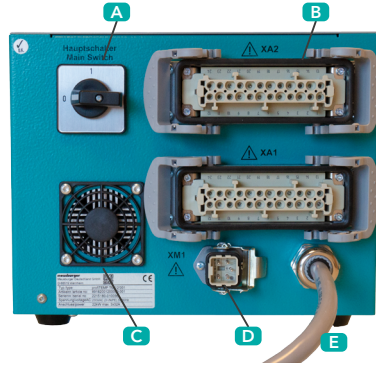
### FUNCTIONS

- » 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

## 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

	Connector	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

	Connector	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

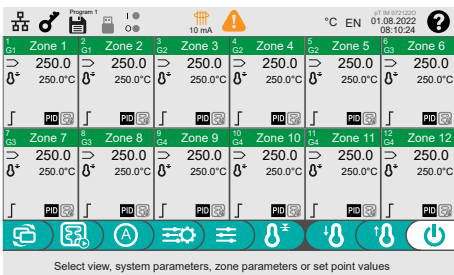
### Pin assignment 522

	Connector	Sensor		Connector	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

### Pin assignment 620

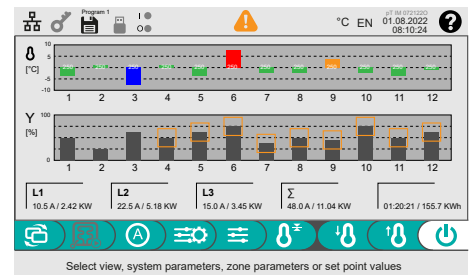
	Connector	Sensor		Connector	Heater	
		-	+		L	N
Zone 1	XA1	9	1	XA2	1	9
Zone 2	XA1	10	2	XA2	2	10
Zone 3	XA1	11	3	XA2	3	11
Zone 4	XA1	12	4	XA2	4	12
Zone 5	XA1	13	5	XA2	5	13
Zone 6	XA1	14	6	XA2	6	14
Zone 7	XA1	15	7	XA2	7	15
Zone 8	XA1	16	8	XA2	8	16

## SCREEN VIEWS



All process data and status information presented clearly at a glance

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.



## 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

$I_{max} = 12 \text{ mA}$  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

## 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
RH 1200/08/620/HA16/32A	620 (Euromap 14)

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 2500/32A/16A	CEE adapter 16 A connector to 32 A coupler