Operating instructions
Remote status reader

MTC

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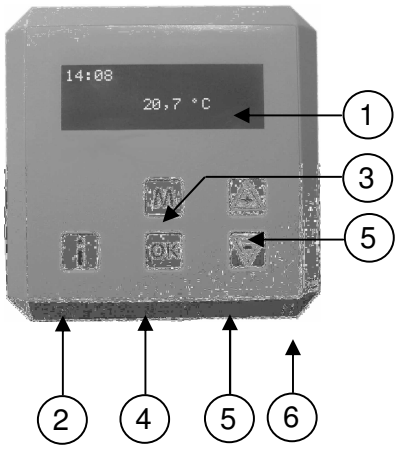
2 Designated use

The Multi Therm-C clock thermostat has been designed to control room heaters that work according to the Argus bus system. This is a two-wire low voltage communication system. The thermostat is not suitable to switch 24V, 230V or other signals. It may only be used in dry rooms with slight impurities (degree of protection IP30).
Before use, carefully read these operating instructions and observe them. In case the mounting and operating instructions are not observed, the manufacturer's warranty will not apply to any resulting damage.

2.1 Safety

Electrical devices may only be connected by a qualified electrician. Always observe the relevant national regulations. Interferences and changes to the device will lead to cancellation of the warranty.

3 Description of the unit

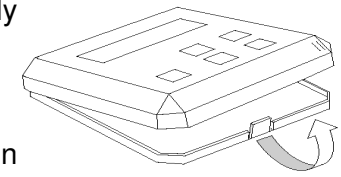


1. Display
2. Info button to display information
3. Menu button to enter and exit the menu
4. OK button to confirm a setting
5. + and – buttons to raise or lower settings
6. openings for the temperature sensor

4 Mounting and electrical connection

4.1 Mounting

By pressing the notch on the bottom of the thermostat, you can open the thermostat. The bottom plate containing the connector can be mounted on a universal wall box or directly on the wall.



4.2 Electrical connection

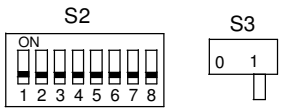
To connect the thermostat, always ensure that the heating device has been shut down.

The thermostat receives electric power from the heating device. The connection is 2-wire low-voltage and is not phase sensitive, i.e. it does not matter how the wires are connected.
Connect the wires to the thermostat connections 5 and 6 on the heater.

4.3 Setting of the switches in the heater

Standard the switches have to be changed on the controller in the heater.
In case the thermostat does not work, check that the micro-switches S2 on the print plate in the room heater are set as shown on the right: number 1 up (ON) and the other numbers down. The switch S3 should be set to 1.
After making the changes inside the heater always unplug and re plug the power to the heater for the changes to become effective.

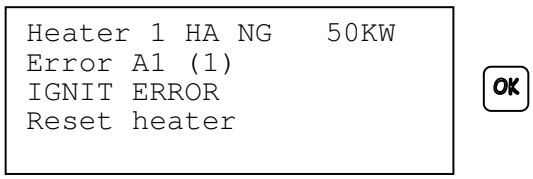
When the analysing is finished, do not forget to put the switches back in original positions!!, All the switches S2 OFF and S3 ON.
After making the changes inside the heater always unplug and re plug the power to the heater for the changes to become effective



5 Solving and analysing failures

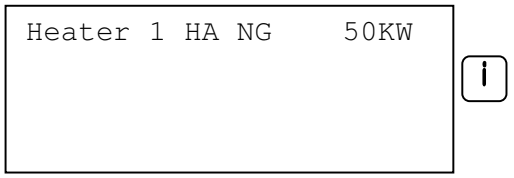
When the heater has an error, it appears on the display of the thermostat.
By pressing the Info button, you can obtain more information about the error message.
When resetting is possible, this also appears in the display. You can reset the heater by pressing OK.

When no heaters are found or connected, the following display will show.
Also when the connedted heaters do not have the right setting of the switches S2 and S3 the controller will show this display, because he can not communicate with the heaters.



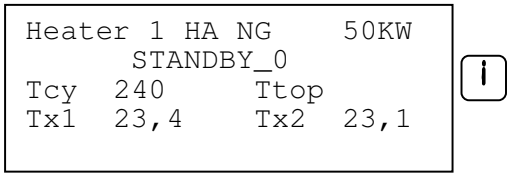
6 Obtaining extra information from the connected heaters

When the info button is pressed for 5 seconds a special information menu can be entered. By pressing the I button again you can go to the next information screen.
To exit the information menu press the M button.

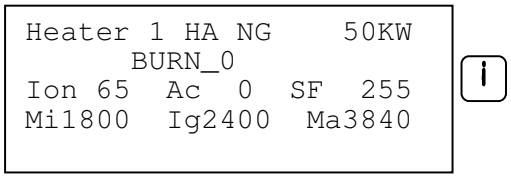


Info Screen 1
line 1: shows the description of the connected heater

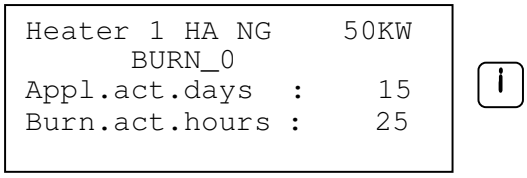
Info Screen 2
line 1: shows the description of the connected heater
line 2: shows the status of the heater
line 3 and 4: shows the temperatures from the internal (optional) sensors.
Ycy = flue temperature (not connected)
Ttop: not connected.
Tx1 and Tx2: Temperatures from the sensor mounted on the heat exchanger, For the DXA standard, for the DXB not connected a standard value will be shown.



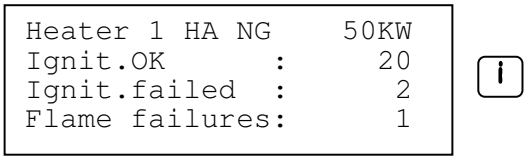
info screen 3
line 1: shows the description of the connected heater
line 2: shows the status of the heater
line 3 and 4:
Ion = flame (ionisation) level 0 -90
Ac = 0 (not connected)
Sf = level of the system fan 0= OFF 255=ON
Mi = not connected
Ig = not connected
Ma = not connected



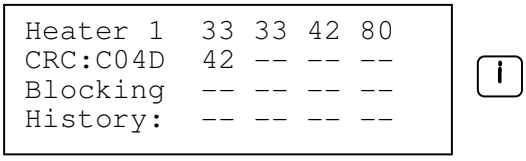
Info screen 4
line 1: shows the description of the connected heater
line 2: shows the status of the heater
line 3: shows the days that the heater is electrically connected
line 4: shows the hours that the heater has actually burned.



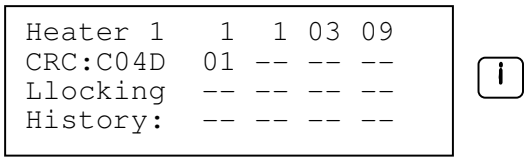
Info screen 5
line 1: shows the description of the connected heater
line 2: shows the times that the heater has successfully started
line 3: shows the times that the heater failed to start. (ignition not successful)
line 4: shows the times that the flame dropped during normal operation (for example fuel tank went empty)



Info screen 6
In this screen the last 16 blocking errors from the heater is shown. This are the E errors. A blocking error will reset itself when the failure is gone. The explanation from the numbers can be shown in the table in this manual. The blinking number is the latest error in the history



Info screen 7
In this screen the last 16 Locking errors from the heater is shown. This are the A errors. A Locking error can only be reset by hand. The explanation from the numbers can be shown in the table in this manual. The blinking number is the latest error in the history



7 Error codes

Lock out errors

(manualy resettable)

Internal

Code	Description	Display	
0	E2PROM_READ_ERROR	A0 E2	memory error
1	IGNIT_ERROR	A1	No flame after ignition
2	FLOW_SENSOR_ERROR	A0	Not used
3	T_EXCHANGE_DIF_ERROR	A3	Temp difference between exchanger sensors 1 and 2
5	GV_RELAY_ERROR	A5	Error gas valve relay on print board
6	SAFETY_RELAY_ERROR	A6	Error safety relay on print board
8	FAN_ERROR	A8	Speed burner fan not correct
9	RAM_ERROR	A0	memory error
10	E2PROM_ERROR	A0	memory error
11	T_FLOW_LOCK_ERROR	A2	Sensor exchanger 1 or 2 to hot (>110°C)
14	REGISTER_ERROR	A0	memory error
15	FLAG_BYTE_INTEGRITY_ERROR	A0	memory error
16	AD_HI_CPL_ERROR	A0	memory error
17	AD_LO_CPL_ERROR	A0	memory error
18	FLAMEROD_NEW_CPL_ERROR	A0	memory error
19	STACK_ERROR	A0	memory error (Stack overflow)
20	FLAME_OUT_TOO_LATE_ERROR	A7	Flame detection after closing gas valve
21	FLAME_ERROR_1	A7	Flame detection before opening gas valve
22	TOO_MANY_APS_ERRORS	A8	5 times switching Air Pressure Switch in 1 hour
24	TOO_MANY_FLAME_FAILURES	A4	3 times flame failure in 1 heating session
25	T_EXCHANGE_LOCK_ERROR	A3	Exchange sensors defect.
26	APS_SWITCH_ERROR	A8	Air Pressure Switch Error.

Blokking errors

(self resettable after error is gone)

Internal

Code	Description	Display	
28	REFHI_TOO_LO_ERROR	E0	Temp difference between exchanger sensors 1 and 2
29	REFHI_TOO_HI_ERROR	E0	Temp difference between exchanger sensors 1 and 2
30	REFLO_TOO_LO_ERROR	E0	Temp difference between exchanger sensors 1 and 2
31	REFLO_TOO_HI_ERROR	E0	Temp difference between exchanger sensors 1 and 2
33	FLAME_ERROR_2	E0	Unexpected flame signal
35	T_EXCHANGE_BLOCK_ERROR	E1	Sensor exchanger 1 or 2 to hot (T>90°C and T<110°C))
42	50HZ_ERROR	E0	Net Frequenty no 50Hz
44	WD_COMMUNICATION_ERROR	E0	Internal commication error.
78	APPLIANCE_SELECTION_ERROR	E2	Wrong Appliance selection resistance
79	POWER_SELECTION_ERROR	E3	Wrong power selection resistance
80	RESET_BUTTON_ERROR	E9	Too many times pressed on reset button in the heater