

5 Operation and Control

NOTICE



The device must not be started or operated outside the specifications!

WARNING



Housing or component damage

Never exceed the maximum working pressure and temperature range of the drive.

CAUTION



Hot surface

Risk of burns

Surface temperatures may be high during operation. Depending on the installation conditions on site, these areas may require a warning sign.

5.1 Basic function of the probe controller

5.1.1 Regulator Functions

After switching on the combination the probe is heated up. The display with the current temperature will light up on the controller. As long as the set operating range is has not yet been reached, the display will flash and the status contact is in Alarm position. Once the working range has been reached, the status contact switches and the display is steady.

The target temperature, the working range of the probe and the temperature unit (°C/°F) are set using the three control buttons on the controller. This is described in chapter "Operation and use".

The factory settings are: Unit: °C; target temperature: 180 °C; working range: ±10 °C

5.1.2 Advanced Functions with Built-In Regulator for Heated Extension (Optional)

The display will alternating between "**Prob**"– adapter temperature – "**AdOn**"– extension temperature.

5.1.3 Advanced functions for built-in blowback control (optional)

After switching on the probe, blowback will always first be initiated.

Blowback is always indicated by the display alternating between the temperature and "bbon" (blow back on).

5.1.4 Additional Board for Solenoid Valves and Limit Switches (SV Board Option)

The regulator is equipped with an additional board for connecting the purge gas valve, sample gas valve and limit switch. The valves and the limit switch are factory fitted.

The built-in regulator (SSR board) or built-in blowback control (RSS board) option are not available when ordering the additional board option.

5.2 Use of menu functions

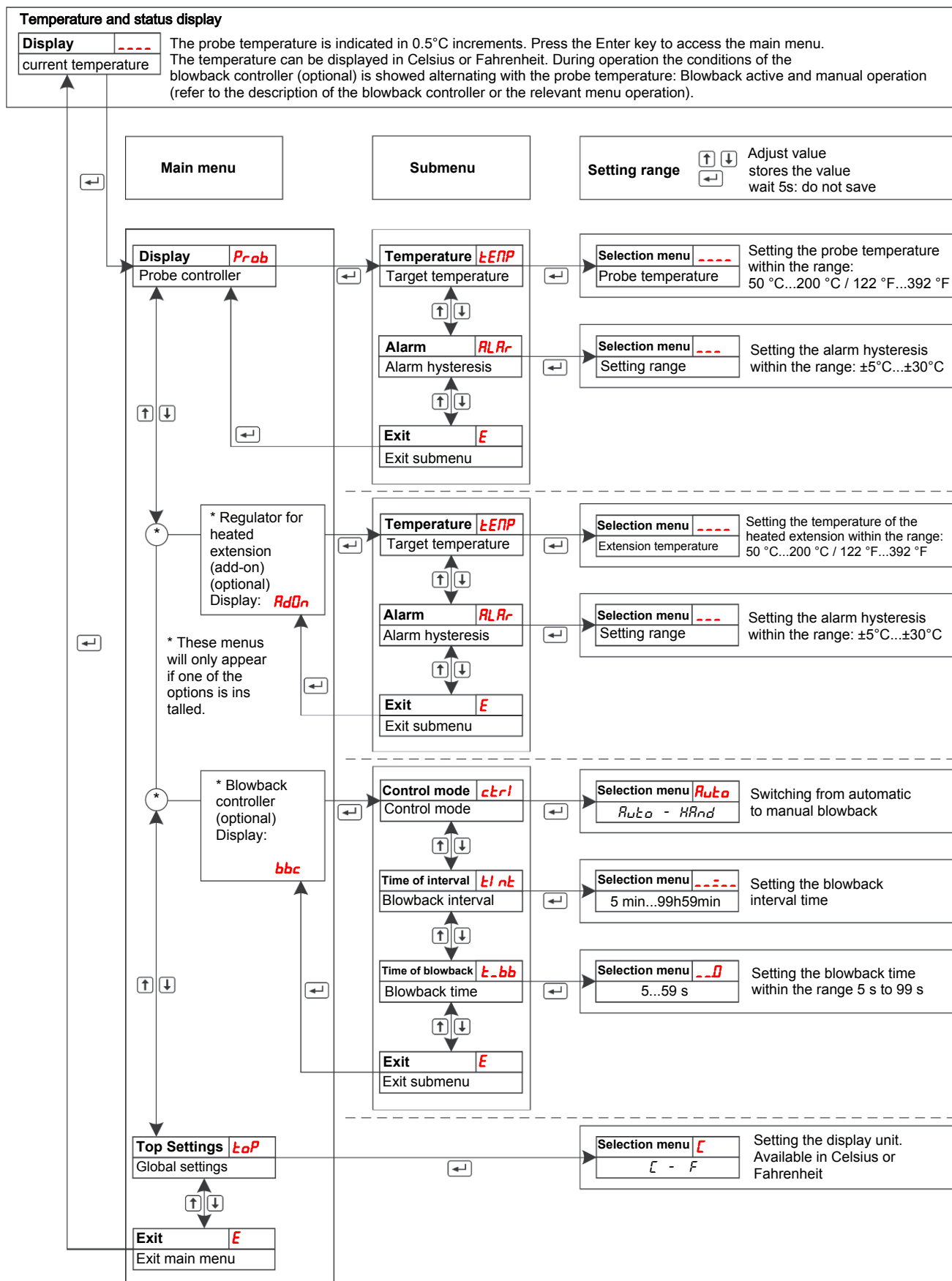
Overview of the operational principal:

Use this short description if you have experience with the device.

Operation is carried out by only the keys with the following functions:

Key	Function
	– Switch from measurement display to main menu – Selection of the display menu item – Accepting the changed value or selection
	– Switch to the upper menu item – Increase of the value of switching the selection – Temporary display of the alternative measurement display (if option is installed)
	– Switch to lower menu item – Decrease of the value of switching the selection – Temporary display of the alternative measurement display (if option is installed)

5.2.1 Menu Navigation Overview



5.2.2 Detailed description of the operational principle

The detailed description will guide you through the menu step by step.

Connect the unit to the power supply and wait for the startup procedure to complete. At first the software version implemented on the unit will be displayed for a brief period. The unit will then switch directly into measured value display.

 Pressing the button will take you from display mode to the main menu. (The control will continue running whilst in menu mode.)

 Use these buttons to navigate the main menu.

 After confirming a main menu item the associated submenu will open

Here you can configure operating parameters:

 Cycle through the submenu to configure the parameters,

 then confirm the menu item to be changed.

 You can now set values within specific limits.

 After confirming the value the system will save it. This will automatically return you to the submenu.

If no button is pushed for approx. 5 s, the unit will automatically return to the submenu. Changes to values will not be saved.

The same applies to the sub- and main menu. The system will automatically return to display mode without saving the (last) value changed. Parameters which were previously changed and saved will be retained and not reset.

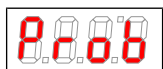
NOTICE! After saving values with the Enter key they will be applied to the control.

E To exit the main or submenu, select menu item E (Exit).

5.3 Description of menu functions

5.3.1 Main Menu

Regulator (probe)



From here you will be able to access all relevant temperature controller settings. The related submenu allows you to select the target temperature and alarm thresholds.

Regulator for heated extension (add-on; only appears if option is installed)



From here you can access all relevant settings for the temperature regulator of the heated extension. The related submenu allows you to select the target temperature and alarm thresholds.

Blow back control Only appears if option is installed)



From here you will be able to access all relevant settings for the probe blowback controller. You can select the control mode, blowback interval and blowback time from the submenu.

Globale settings (ToP Settings)



Selection of the global temperature unit, either degree Celsius (C) or degree Fahrenheit (F).

Note:

This menu item has no sub-item. The temperature unit is directly selected.

Exit main menu

Display → **E**



Selecting this will return you to display mode.

5.3.2 Probe Controller Submenu [Display: Prob]

Controller -> Target temperature (Temperature)



This setting defines the target cooling block temperature. The value can be set within a range from 50 °C (122 °F) to 200 °C (392 °F).

Note: The default value on delivery is 180 °C (356 °F).

Controller -> Alarm range



This item allows setting of the alarm range threshold for the optical alarm as well as for the alarm relay. The alarm threshold may be set in the range from ± 5 °C (± 9 °F) to ± 30 °C (± 54 °F) with respect to the nominal value.

Note: Default value at delivery is ± 10 °C (± 18 °F).

Exit submenu 1

Display → Submenu → **E**



Selecting this will return you to the main menu.

5.3.3 Regulator Submenu for Heated Extension [Display: Adon] (Optional)

Controller -> Target temperature (Temperature)



This setting defines the target cooling block temperature. The value can be set within a range from 50 °C (122 °F) to 200 °C (392 °F).

Note: The default value on delivery is 180 °C (356 °F).

Controller -> Alarm range



This item allows setting of the alarm range threshold for the optical alarm as well as for the alarm relay. The alarm threshold may be set in the range from ± 5 °C (± 9 °F) to ± 30 °C (± 54 °F) with respect to the nominal value.

Note: Default value at delivery is ± 10 °C (± 18 °F).

Exit submenu 1

Display → Submenu → **E**



Selecting this will return you to the main menu.

5.3.4 Submenu Blowback control [Display: bbc] (optional)

Blowback control -> Control mode



Under this menu item you can switch between automatic blowback and manual operation.

When selecting Hand, the display will alternate between displaying the temperature and "Hand".

Blowback control -> Blowback interval (Time of interval)



Used to set the total blowback interval time.

The setting range is 5 minutes to 99 hours 59 minutes.

Use the and keys to set each digit and confirm with . The digit being set will flash.

Entry errors can be corrected after pressing the key. Exit the menu and return to it.

Note:

- 1) The default value on delivery is 10 minutes.
- 2) After selecting and confirming this value with a blowback cycle will automatically be initiated and the interval will start.
- 3) Only applicable in automatic mode.

Blowback control -> Blowback time (Time of blowback)



Sets the time of the actual blowback.

The setting range is 5 to 59 seconds.

Use the and keys to adjust the settings.

Note:

The default value on delivery is 10 seconds.

Exit submenu 1

Display → Submenu →



Selecting this will return you to the main menu.