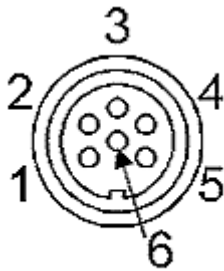



Analog PIN Configurations for PRESTO's and HT's

Programmer input / Temperature recorder output

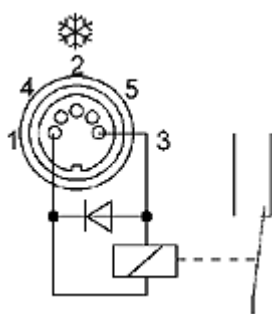
Analog inputs / outputs:

	Pin		Signal	
 <p>REG+E-PROG</p>	1	Voltage output	Channel 1	0 ... 10 V
	2	Voltage output	Channel 2	0 ... 10 V)
	3	GND for outputs		0 V
	4	Programmer input	EPROG	0 to 10 V / 0 to 20 mA
	5	Current output	Channel 3	0 to 20 mA / 4 to 20 mA
	6	GND for programmer		0 V

Control Output

The  connector may be used for control of JULABO refrigerated circulators or as output for alarm messages.

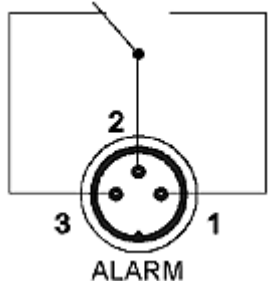
Pin assignment:

	Pin	Signal
	1	+24 V (I max. current 25 mA)
	2	0 V
	3	Alarm relay
	4	Reserved - do not use!
	5	Cooling pulse
Circuit:		Operation = relay powered Alarm = relay not powered

Alarm output

(for external alarm signal)

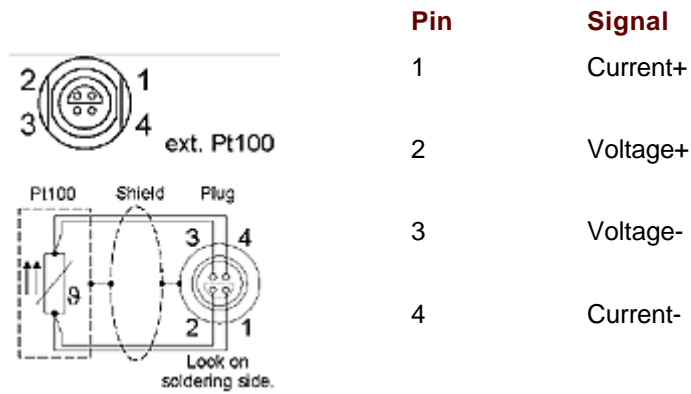
This potential-free change-over contact is activated in case of an alarm when pins 2 and 3 are connected.

 <p>ALARM</p>	Switching capacity max.	30 W / 40 VA
	Switching voltage max.	125 V~/-
	Switching current max.	1 A

Connector for external Pt100 sensor

Sensor must be 2, 3, or 4 wire
Platinum 100 Ohm DIN .00385 RTD

Pin assignment:



The shield of the connecting cable is electrically connected to the plug housing and the sensor tube.

Control connector

To be used as return flow safety device with solenoid valves and/or for supplementary pumps.



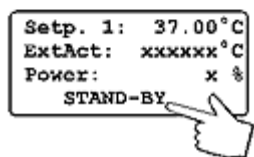
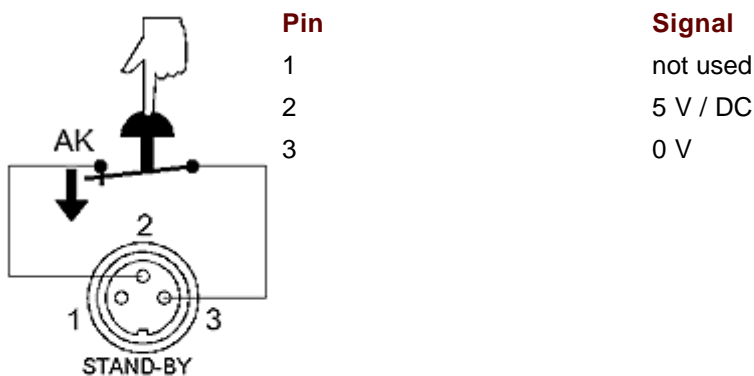
Line voltage: 230 V~ / max.
1.25 A

115 V~ / max.
2.5 A

STAND-BY input

(for external emergency switch-off)

Pin assignment:



Use shielded cables only.

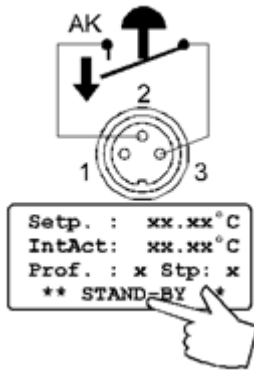
Activate the stand-by input:

- Under menu item Stand-by, set the parameter to "yes".
- Connect an external contact 'AK' (e.g. for emergency switch-off) or an alarm contact of the superordinated system.

In case the connection between Pin 2 and Pin 3 is interrupted by opening the contact 'AK', a complete shutdown of the circulating pump and heater is effected, and the unit enters the condition "OFF". As long as the contact remains open, line 4 of the DIALOG-DISPLAY (LCD) flashes and displays the message "STAND-BY". If the contact is reclosed, the circulator returns to the stand-by status and "OFF" is displayed.

Additional tips for using the STAND-BY input:

The Stand-by function can be used in conjunction with the AUTOSTART feature.



- 1 If the Autostart function is NOT turned ON, the Stand-by input should be used as described above".
 - 2 If the Autostart function is enabled, the instrument will revert back to the original method of entering the setpoint (i.e. keypad, RS232, Analog input, etc.).
- Entering the setpoint with the keypad, for example .As described above, an bipolar shut-down is accompanied by the "STAND-BY" display and the OFF status. The programmable controller starts again when the contact is reclosed. The temperature of the bath liquid changed during the STAND-BY status.
 - Entering the setpoint with the programmer. The display "STAND-BY" appears. The setpoint value and the time are both held at the current value. The temperature of the bath fluid will be held constant at this temperature. The programmer continues once the contact is reclosed.



Warning: this is not an actual shutoff feature