

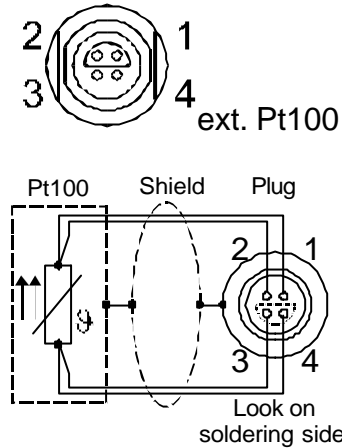
10. Electrical connections



Notice:

Use shielded cables only.

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

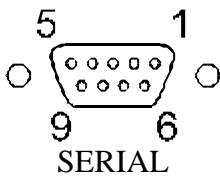


Socket for external Pt100 sensor

Pin assignment:

Pin	Signal
1	I+
2	U+
3	U-
4	I-

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



RS232 serial interface

This port can be used to connect a computer with an RS232 cable for remote control of the circulator.

Pin assignments RS232:

Pin 2	RxD	Receive Data
Pin 3	TxD	Transmit Data
Pin 5	0 VD	Signal GND
Pin 6	DTR	Data terminal ready
Pin 7	RTS	Request to send
Pin 8	CTS	Clear to send

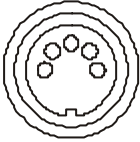
Interface correspondence: RS232:


Circulator 9-pole		PC 25-pole		Circulator 9-pole		PC 9-pole
Pin 2 RxD	⇔	Pin 2 TxD		Pin 2 RxD	⇔	Pin 3 TxD
Pin 3 TxD	⇔	Pin 3 RxD		Pin 3 TxD	⇔	Pin 2 RxD
Pin 5 GND	⇔	Pin 7 GND		Pin 5 GND	⇔	Pin 5 GND
Pin 6 DTR	⇔	Pin 6 DSR		Pin 6 DTR	⇔	Pin 6 DSR
Pin 7 RTS	⇔	Pin 5 CTS		Pin 7 RTS	⇔	Pin 8 CTS
Pin 8 CTS	⇔	Pin 4 RTS		Pin 8 CTS	⇔	Pin 7 RTS

RS232 interface cable 9-pin / 9-pin, 2.5 m - Order No.: 8 980 073

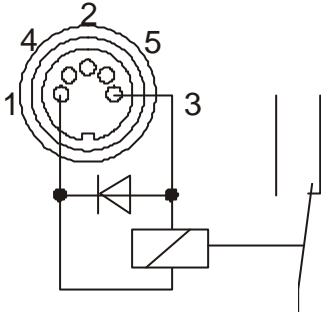


 / Control output



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

Circuit: Operation = relay powered
 Alarm = relay not powered

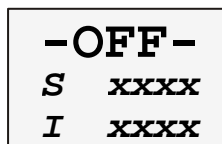
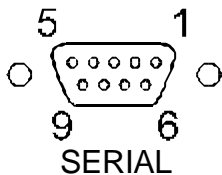


Pin assignment:

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

11. Remote control

11.1. Setup for remote control



1. Check the interface parameters for both interfaces (on circulator and PC) and make sure they match.
(Serial interface see page 38)
2. In the menu > MENU / CONFIG < set the menu item > SETPoint < to > SERIAL < .
(see 7.3.1. SETPOINT – Keypad control or remote control on page 35)
3. Connect both units with an interface cable..



Like all parameters which can be entered through the keypad, interface parameters are stored in memory even after the circulator is turned off.