

Julabo Circulators

Information Sheet for Crimson v2.0

Compatible Devices

- Julabo Refrigerated and Heating Circulator Heads

Verified Device

- HL

Device Options

Address (Ad): The programmer selects the network identifier for RS485 connections.

USR Access: If the programmer needs to send a string that is not supported by the driver, USR Access must be set to the USR Access Code, which will enable custom strings. See Note 4.

Accessible Data

Prefix	Description	Notes	Information
SP	SP (Real)	1	
PR	Par (Real)	1	
PV	PV (Real)	1	
HI	Cooling (Integer)	2	
MO	Mode (Integer)	2	
ST	Status Value	2	Read-Only
STS	Status (String)	3	Read-Only
VR	Version (String)	3	Read-Only
US	Send UC, Get UR	4	Engineering Use Only
UC	User Command String	4	Engineering Use Only
UR	User Response String	4	Engineering Use Only

NOTES:

Caution: The driver does not restrict the numbers assigned to items that might access numerical data. The programmer is responsible for using only those items that the device supports.

"Item Info": This displays parameter descriptions, if known, otherwise it is blank. The selection is accepted whether or not the description is known.

See Caution above.

- 1) **SP, PR, PV:** Use a Real Number Tag for proper handling of the data.

2) **HI, MO, ST:** Use an Integer Number Tag for proper handling of the data. **ST** is the integer status value found in the Status String **STS**.

3) **STS, VR:** Read-Only string items. See Figure 1 for proper configuration.

4) **US, UC, UR:** are provided for sending command strings not otherwise supported by the software. See "Device Options" above to enable this function.

Set **UC** to the Command and data. When it is desired to send the command, enter the USR Access Code into **US**. The response will appear in **UR**.

Caution: The responsible engineer MUST pre-define all strings to be used by these commands, using available tools to guarantee that only valid strings can be sent to the device.

Example: Request Status via the User Selections.

Set the tag assigned to UC = "status". Set **US** = USR Access Code. (The access code is the driver identifier. Contact Tech Support at the factory for information.)

UR may display:

"*00 Manual Stop*". (* represents all non-printable characters). If RS485 is used, "Annn_" will prefix the result, where n is the device address.

The driver will prefix the address, if necessary, and will append the CR. See Figure 1 for proper configuration of **UC** and **UR**.

Figure 1 – Configuring String selections:

The screenshot shows a configuration window for 'Variable Data'. The window has a sidebar with tabs: Data, Format, Colors, Security, and Comment. The 'Data' tab is active. The 'Variable Data' section includes: Mapping (dropdown: Circ1, text: ST00, button: Edit...), Encoding (dropdown: Packed High-to-Low), Access (dropdown: Read and Write), Storage (dropdown: Non-Retentive), Length (text: 16 characters, note: (As needed)), Simulation (text: None), and Actions (text: On Write: None). A black arrow points from the 'Required' label to the 'Encoding' dropdown. The 'Length' field has a left-pointing arrow next to it.

Note the Encoding must be Packed High-To-Low. Set the Length, at a minimum, to the size of the largest response string for the type selected.

Cable Information:

RS232 Serial Connection

G3	Signal	Julabo Circulator
2	Rx <- Tx	3
5	Tx -> Rx	2
3/4	0V	5
	RTS-CTS	7 --- 8 *

* If the device will never be set to Hardware Handshake, this can be omitted.

RS485 Serial Connection

G3	Signal	Julabo Circulator
8	A <-> B	3
7	B <-> A	8
6	0V	5
N/C	All others	N/C