Sonic Reservoir Sensor

SR-13

RS-232C Instruction Manual

Ver.1

Configuration and Protocol

■ This equipment can perform external control with PCs and other host devices by serial communications using RS232C communication.

[RS232C communication setting]

Connecting cable	Cross cable (female terminal)
Communication baud rate	9600 bps
Parity	None
Stop bit	1 bit
Flow control	None

[Control Command]

All serial communication commands consist of ASCII strings. Each command begins with a semi-colon ";" followed by a single character address, command type, and setting value separated by a comma, followed by a <CR><LF> delimiter code. (omitted in the table below).

All commands have a fixed length. Perform zero insertion so that the specified command length is met.

(e.g.); 1, Q01, 1<CR><LF>

Leading code address (2 characters) Command type Setting value

* For the Qxx command, there is no setting value.

(Host-device →SONIC)

Command	Content	Setting value or reply content		
S00,a	Error output Setting	a	0	Check with Q command
			1	Error, automatic output
		; 1, En, 10 (n) is the channel		
Q01	Channel 1 Condition requirement	The status of channel 1 is returned.		
		;1,01aa		
		a		Solvent bottle and waste liquid bottle Each reply is made. See RS232C list.
Q02	Channel 2 Condition requirement	The status of channel 2 is returned.		
		;1,02aa		
		a		Solvent bottle and waste liquid bottle Each reply is made. See RS232C list.
Q03	Channel 3 Condition requirement	The status of channel 3 is returned.		
		;1,03aa		
		a		Solvent bottle and waste liquid bottle Each reply is made. See RS232C list.

(SONIC→ host device)

Command	Content	Sent data		
OK	Acknowledgment	Transferred when the command of command type "S" or "R" is processed normally		
E,aaa	Error transmission	a		Errors related to receiving errors
			10	Reception that is not in the specified format
			20	Receiving outside the setting range
			35	Receiving inconsistent content

Command list

① Host device ← SR-13

Command		Content
;1,S00a<CR><LF>		Automatic error output setting
Setting value or reply content		
a	0	Check the status with the Q instruction (no output).
	1	When an error occurs, see the automatic output ② list).
;1,Qn<CR><LF>		The status of each channel is returned.

Classification	Command	Sent data
Solvent	;1,0n00	Less than about 10% remaining
	;1,0n01	Less than about 25% remaining
	;1,0n02	Less than about 50% remaining
	;1,0n03	Less than 75% remaining
	;1,0n04	Residual amount of about 75% or more
Waste liquid	;1,0n05	Approximately 7.5 or more until full
	;1,0n06	Approximately 4.5cm or more until full
	;1,0n07	Approximately 1.5cm or more until full
	;1,0n08	Approximately 1.5cm or less until full
	;1,0n09	0 cm until full
Common	;1,0n10	Sensor malfunction max. value too low
	;1,0n12	Excessive minimum sensor malfunction
	;1,0n13	Channel Off
	;1,0n14	Prove malfunction (Prove cannot be identified)
	;1,0n15	Unmeasured and under measurement
(n) shows channel No,		

② SR-13 ← Host device (① when automatic error output is set)

Classification	Command	Sent data
Solvent	;1,En00	Less than about 25% remaining
	;1,En01	Less than about 10% remaining
Waste liquid	;1,En08	Approximately 1.5cm or less until full water
	;1,En09	Full of liquid
Common	;1,En10	Sensor malfunction max. value too low
	;1,En12	Excessive minimum sensor malfunction
(n) is the channel.		

Please contact us if you are unclear, cannot communicate, or the setting is not reflected.

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