AH2C1-6 | ELECTRONIC HEATING CONTROLLER

Modbus register map

MODBUS REGISTER MAP

Input registers

		Data type	Description	Data	Values
1	Actual Temperature Level	signed int	Actual temperature.		200 = 20.0ºC
2	Current Output Duty Cycle	signed int	Current output in %	0-100	100 = 100%
3	Selected Setpoint	signed int	Current setpoint in ºC	50-300	300 = 30.0ºC, 5—30ºC
4–9			Reserved. Return 0.		
10	Setpoint Source Selected (Ext.SP / Int.SP)	unsigned int	Shows which setpoint is used - external by analogue input or internal by trimmer or Modbus register	0,1	0 - External; 1 - Internal
11	Working Mode (Slave/Master)	unsigned int	Shows how the controller is working: as a Master providing analogue output for a Slave device or as a Slave when the output in % repeats the analogue input	0,1	0 - Slave; 1 - Master
12	Day / Night Mode	unsigned int	Shows which setpoint is active: selected by NO switch	0,1	0 - Day; 1 - Night
13	Remote Off Contact	unsigned int	Shows if the device is in remote off: selected by NC switch	0,1	0 - On, 1 = Standby.
14	Control Board Problem		Shows if there is problem with the communication with the control board	0,1	0 - OK,1 - Problem.
15–18			Reserved. Return 0.		

Holding registers

		Data type	Description	Data	Values
1	Device Slave Address	unsigned int	Device address.	1—247, default:1	
2	Baud rate	unsigned int	Modbus communication baud rate.	1—4, default: 2	1 = 9600, 2 = 19200, 3 = 38400, 4 = 57600
3	Parity mode	unsigned int	Parity check mode.	0—2, default:1	0=8N1, 1=8E1, 2=8O1
4	Device Type	unsigned int	Device Type: Read Only	6000, 6001	6000 = AH2C1-6, 6001 = AH2C1-6-500,
5	HW Version	unsigned int	Hardware Version. Read only	XX.XX	0x0110 = HW version 1.10
6	SW version	unsigned int	Software Version. Read only	XX.XX	0x0120 = SW version 1.20

Holding registers

		Data type	Description	Data	Values
7	Operating mode	unsigned int	Enables the Modbus control and disables the jumpers and trimmers.	0-1	0 = Standalone mode, 1 = Modbus mode.
8	Output Override	unsigned int	Enables the direct control over the outputs. Always settable. Active only if holding register 7 is set to 1.	0-1	0 = Disabled, 1 = Enabled, default: 0.
9–10			Reserved. Return 0.		
11	Day Setpoint Selection	unsigned int	Day setpoint	50—300, Default 250	300 = 30.0ºC, 5—30ºC
12	Night Setpoint Selection	unsigned int	Day setpoint	50—300, Default 180	300 = 30.0ºC, 5—30ºC
13	Working Mode	unsigned int	Slave or master in Modbus mode	0—1 Default 1;	0 - Slave, 1 - Master,
14	Setpoint Source Selection	unsigned int	External or Internal (Modbus) setpoint	0—1 Default 1;	0 = External setpoint, 1 = Internal setpoint
15	Triac Control PWM Output Period	unsigned int	PWM period time	1—60 default 30.	60 = 60sec.
16	Calibration at 10ºC	unsigned int	Register containing the calibration value for 10ºC. Write 1 to perform calibration.	0—1023; Default 210	
17	Calibration at 30ºC	unsigned int	Register containing the calibration value for 30ºC. Write 1 to perform calibration.	0—1023, Default 490	
18	Disable Remote Off.	unsigned int	Disables/enables the Remote Off Contact (CC)	0, 1, default:1.	0 - Disabled, 1 - Enabled.
19–20			Reserved. Return 0.		
21	Override Output Value	signed int	Override output value in %(only active if registers 7 and 8 are set)	0—100; default 0.	100 = 100%
22–30			Reserved. Return 0.		

For more information about Modbus over serial line, please visit: *http://www.modbus.org/docs/Modbus_over_serial_line_V1_02.pdf*