RDCV9

DIGITAL RESIDENTIAL FAN SPEED CONTROLLER

Modbus register map

MODBUS REGISTER MAP

INPUT REGISTERS

Input register		Data type	Description	Raw data	Values
1	Output value	unsigned integer	Output value in %	0—100	100 = 10 VDC / 20 mA / 100 % PWM 50 = 5 VDC / 10 mA / 50 % PWM
2	Output step	unsigned integer	Current step selected	0—9	8 = step 8
3	Output type	unsigned integer	Output mode: voltage / current / PWM	0—2	0 = 0—10 VDC 1 = 0—20 mA 2 = 0—100% PWM
4	Minimum output value	unsigned integer	Minimum value of the output signal	0—80	20 = 2 VDC / 4 mA / 20% PWM
5	Maximum output value	unsigned integer	Maximum value of the output signal	20—100	80 = 8 VDC / 16 mA / 80% PWM
8	Output overwrite mode	unsigned integer	Overwrite mode active	0, 1	0 = Manual 1 = Overwrite

Note: The input registers can be read via the Modbus command: “Read input registers”.

HOLDING REGISTERS

Holding register		Data type	Description	Raw data	Values	Factory default values
1	Device slave address	unsigned integer	Modbus device address	1—247		1
2	Modbus baud rate	unsigned integer	Modbus communication baud rate	0—6	0 = 4.800 1 = 9.600 2 = 19.200 3 = 38.400 4 = 57.600 5 = 115.200 6 = 230.400	2
3	Modbus parity mode	unsigned integer	Modbus parity check mode	0—2	0 = 8N1 1 = 8E1 2 = 8O1	1
4	Device type	unsigned integer	Device type: Read only	2.300	RDCV9 = 2.300	
5	HW version	unsigned integer	Hardware version of the device (read only)	XXXX	0x0110 = HW version 1.1	
6	FW version	unsigned integer	Firmware version of the device (read only)	XXXX	0x0610 = FW version 6.1	
9	Network Bus Termination Resistor (NBT)	unsigned integer	To avoid communication losses and reflections on the Modbus line, the NBT in two devices (at both ends of the line) must be activated.	0, 1	0 = NBT disconnected 1 = NBT connected	0
10	Modbus registers reset	unsigned integer	Reset all HR > HR10 to their default value.	0—1	0 = Nothing 1 = Reset	0
11	Operating mode	unsigned integer	Selection of Run / Standby mode.	0—1	0 = Run 1 = Standby	0
12	Minimum output value	unsigned integer	Set minimum value of output signal	0—80	20 = 2 VDC / 4 mA / 20% PWM	20
13	Maximum output value	unsigned integer	Set maximum value of output signal	20—100	80 = 8 VDC / 16 mA / 80% PWM	100
14	Start output value	unsigned integer	Start level output signal when the unit is switched on	0—100	20 = 20 % = 2 VDC / 4mA / 20% PWM	20

HOLDING REGISTERS

Holding register		Data type	Description	Raw data	Values	Factory default values
15	Output type	unsigned integer	Selection of the output mode: voltage/current/PWM	0—2	0 = 0—10 VDC 1 = 0—20 mA 2 = 0—100% PWM	0
16	PWM type	unsigned integer	Selection of PWM output type: Open collector (OC) / Pull-up +12 VDC	0, 1	0 = Open collector 1 = Pull-up +12 VDC	0
17	Output steps	unsigned integer	Number of output steps defined	0—9	0 = 1% per step 1 = 1 step 8 = 8 steps	0
18	Start step	unsigned integer	Starting step	0—9	0 = step 0	0
19	Output overwrite enable	unsigned integer	Selection of overwrite mode	0, 1	0 = Inactive 1 = Active	0
20	Overwrite value	unsigned integer	Output value in overwrite mode in percentage	0—100	50 = 50%	50

Note: The holding registers can be managed via the following Modbus commands: “Read Holding Registers”, “Write Single Register” or “Write Multiple Registers”.

The free Sentera configuration and monitoring software 3SModbus can be downloaded via: ***https://www.sentera.eu/en/3SMCenter***