

RDCZ9

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 % Us	0–100	50 = 50 % Us
2	Output step	unsigned integer	Current step selected	0–9	8 = step 8
3	Output voltage	unsigned integer	Output voltage	0–2.300	1.150 = 115 VAC
4	Minimum output value	unsigned integer	Minimum output value	0–2.300	1.035 = 103,5 VAC
5	Maximum output value	unsigned integer	Maximum output value	0–2.300	2.300 = 230 VAC
6	Supply voltage	unsigned integer	Input voltage rating in VAC	110–230	230 = 230 VAC
7	Frequency	unsigned integer	Input frequency in Hz	50–60	50 = 50 Hz
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 range	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	3.010	RDCZ9 = 3.010	
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 = Disconnected (NBT open) 1 = Connected (NBT connected)	0
10	Modbus registers reset	unsigned integer	Reset all HR > HR10 to their default value.	0–1	0 = Idle 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 the output signal	30–65	45 = 45 % Us	45
13	Maximum output value	unsigned integer	Set maximum value of the output signal	75–100	80 = 80 % Us	100

HOLDING REGISTERS

Holding register	Data type	Description	Raw data range	Values	Factory default values	
14	Start output value	unsigned integer	Start level output value when the unit is switched on	30–100	50 = 50 % Us	50
15	Kickstart control	unsigned integer	Kickstart or softstart mode	0–1	0 = Softstart 1 = Kickstart	0
16	Kickstart time	unsigned integer	Time for the kickstart to run on maximum output voltage	2–10	5 = 5 s	5
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	30–100	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>