SDX-DM

230 VAC ELECTRONIC FAN SPEED CONTROLLERS

Modbus register map

MODBUS REGISTER MAP

INPUT REGISTERS

		Data type	Description	Raw data	Values
1	Actual output value	unsigned integer	Show current value of output voltage in percentages	0, 200—1.000	0 = 0 % of supply voltage (Us) 200 = 20 % of supply voltage (Us) 1.000 = 100 % of supply voltage (Us)
2	Frequency	unsigned integer	Recognised supply voltage frequency	0, 1	0 = 50 Hz 1 = 60 Hz
3	Minimum output value limit	unsigned integer	Adjusted minimum output voltage in percentages	200—700	200 = 20 % of supply voltage (Us) 700 = 70 % of supply voltage (Us)
4	Maximum output value limit	unsigned integer	Adjusted maximum output voltage in percentages	750—1.000	750 = 75 % of supply voltage (Us) 1.000 = 100 % of supply voltage (Us)
5	Output startup mode	unsigned integer	Selected kickstart or softstart	0, 1	0 = Softstart 1 = Kickstart
6	Operating mode	unsigned integer	Show current operating mode of the controller	0, 1	0 = Standby 1 = Active
7—8			Reserved, return 0		
9	Zero cross detection status	unsigned integer	Shows flag when there is zero cross detection problem	0, 1	0 = OK 1 = Zero cross detection problem
10	Operating temperature status	unsigned integer	Shows flag when controller is overheated	0, 1	0 = OK 1 = Overheating

Note: *The input registers can be read via the Modbus command: "Read input registers".*

HOLDING REGISTERS

		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 3 = 38.400 6 = 230.400 1 = 9.600 4 = 57.600 2 = 19.200 5 = 115.200	2
3	Modbus parity	unsigned integer	Parity check mode	0—2	0 = 8N1 1 = 8E1 2 = 8O1	1
4	Device type	unsigned integer	Device type, read only	2.303—2.304	SDX-1-15-DM = 2.303 SDX-1-25-DM = 2.304	
5	HW version	unsigned integer	Hardware version of the device, read only	XXXX	0x0100 = HW version 1.0	
6	FW version	unsigned integer	Firmware version of the device, read only	XXXX	0x0100 = FW version 1.0	
7			Reserved, returns 0			
8	Modbus safety timeout	unsigned integer	After time with no Modbus communication, output is set to minimum	0—60	0 = no timeout 60 = 60 minutes	0
9	Modbus network bus termination (NBT)	unsigned integer	Set device as end device of the line / or not by connecting NBT	0, 1	0 = NBT disconnected 1 = NBT connected	0
10	Modbus registers reset	unsigned integer	Resets Modbus Holding registers (8 and above 10) to default values. When finished this register is automatically reset to '0'	0, 1	0 = Idle 1 = Reset Modbus registers	0
11			Reserved, returns 0			
12	Overwrite enable / disable	unsigned integer	Enables the direct control over output	0, 1	0 = Disabled 1 = Enabled	0

HOLDING REGISTERS

		Data type	Description	Raw data	Values	Factory default values
13	Output overwrite value	unsigned integer	Overwrite value for the regulated output voltage in percentages. Always settable. Active only if holding register 12 is set to 1	200—1.000	200 = 20 % of supply voltage (Us) 1.000 = 100 % of supply voltage (Us)	200
14			Reserved, returns 0			
15	Minimum output value limit	unsigned integer	Minimum settable output voltage in percentages	200—700	200 = 20 % of supply voltage (Us) 700 = 70 % of supply voltage (Us)	300
16	Maximum output value limit	unsigned integer	Maximum settable output voltage in percentages	750—1.000	750 = 75 % of supply voltage (Us) 1.000 = 100 % of supply voltage (Us)	1.000
17	Output regulation control	unsigned integer	Output voltage regulation direction	0, 1	0 = Minimum to maximum 1 = Maximum to minimum	0
18	Output startup mode	unsigned integer	Select kickstart or softstart	0, 1	0 = Softstart 1 = Kickstart	1
19	Kickstart time	unsigned integer	Set kickstart duration	2—20	2 = 2 s 20 = 20 s	10
20	Operating mode	unsigned integer	Select operating mode of the controller	0, 1	0 = Standby 1 = Active	1

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**