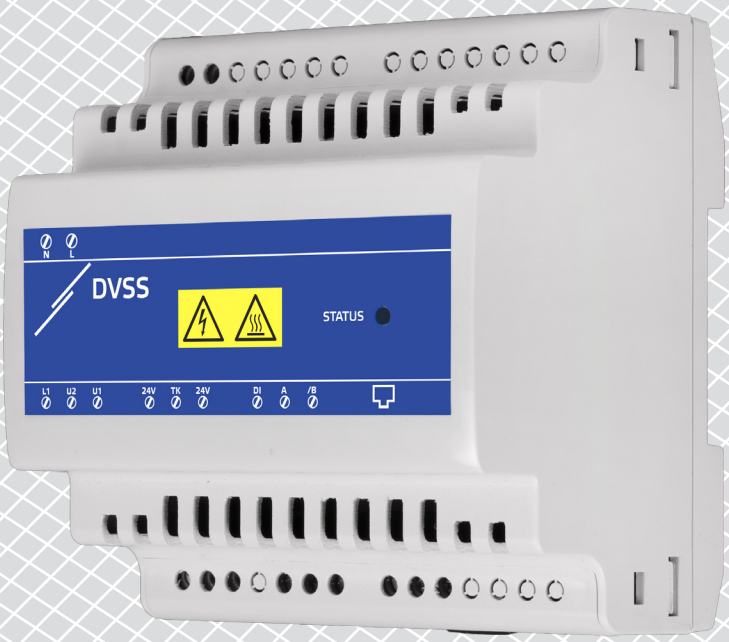
DVSS8 | ELECTRONIC FAN SPEED CONTROLLER FOR DIN RAIL

Modbus register map



MODBUS REGISTER MAP

INPUT REGISTERS

Input register		Data Type	Description	Raw Data Range	Resolution / Unit	Values
↓ General ↓						
1	Output Value	R	Current output value in percentage	0, 200 – 1.000	1/10 % Us	**Example**: 0 = 0 % of Supply Voltage (Us) 200 = 20 % of Supply Voltage (Us) 1.000 = 100 % of Supply Voltage (Us)
2	Frequency	R	Supply voltage frequency	0–1		0 = 50 Hz 1 = 60 Hz
3	Minimum Output Value Limit	R	Minimum output value in percentage	200–700	1/10 % Us	**Example**: 200 = 20 % of Supply Voltage (Us) 700 = 70 % of Supply Voltage (Us)
4	Maximum Output Value Limit	R	Maximum output value in percentage	750–1.000	1/10 % Us	**Example**: 750 = 75 % of Supply Voltage (Us) 1.000 = 100 % of Supply Voltage (Us)
5	Start-up Mode	R	Kickstart or Softstart for output control	0–1		0 = Softstart 1 = Kickstart
6	Operating Mode	R	Fan speed controller operating mode	0–1		0 = Stop 1 = Run
7	Remote Control State	R	Remote on/off	0–1		0 = Off 1 = On
8	TK State	R	Thermal protection status	0–1		0 = OK 1 = Thermal Protection
9	Zero Cross Detection State	R	Zero cross detection problem flag	0–1		0 = OK 1 = Zero Cross Detection Problem
10	Operating Temperature State	R	Controller overheating flag	0–1		0 = OK 1 = Overheating

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

HOLDING REGISTERS

	Holding register	Data Type	Description	Raw Data Range	Resolution / Units	Values	Factory Default Values
1	Device Address	R/W	Modbus device address.	1–247			1
2	Baud Rate	R/W	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	Parity	R/W	Parity check mode	0–2		0 = None 1 = Even 2 = Odd	1
4	Device Type	R	Device type	XXXX		Device specific	3014 = DVSS8-30-DM 3015 = DVSS8-60-DM
5	HW Version	R	Hardware version of the device	XXXX		0x0100 = HW version 1.0	XXXX
6	FW Version	R	Firmware version of the device	XXXX		0x0100 = FW version 1.0	XXXX
8	Modbus Safety Timeout	R/W	After time with no Modbus communication, the output is set to minimum.	0–60	1 min	0 = no timeout 60 = 60 minutes	0
9	Modbus Termination Resistor	R/W	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	Reset Modbus Holding Registers	R/W	Resets Modbus holding registers (HR11–20) to default values. When finished, this register is automatically reset to 0.	0–1		0 = Idle 1 = Reset Modbus registers	0
11	Remote Mode	R/W	Remote on/off input enable (DI)	0–1		0 = Disabled 1 = Enabled	0
13	Output Overwrite Value	R/W	Output overwrite value in percentages	200–1.000	1/10 % Us	200 = 20 % of supply voltage (Us) 700 = 100 % of supply voltage (Us)	300

HOLDING REGISTERS

Holding register		Data Type	Description	Raw Data Range	Resolution / Units	Values	Factory Default Values
15	Minimum Output Value Limit	R/W	Minimum settable output voltage in percentages	200–700	1/10 % Us	**Example**: 200 = 20 % of supply voltage (Us) 700 = 70 % of supply voltage (Us)	300
16	Maximum Output Value Limit	R/W	Maximum settable output voltage in percentages	750–1.000	1/10 % Us	**Example**: 750 = 75 % of supply voltage (Us) 1.000 = 100 % of supply voltage (Us)	1.000
17	TK Detection Control	R/W	Thermal protection control input usage	0–1		0 = Disabled 1 = Enabled	0
18	Start-Up Mode	R/W	Select kickstart or softstart	0–1		0 = Softstart 1 = Kickstart	1
19	Start-Up Timer	R/W	Set start-up duration	2–20	1 s	**Example**: 2 = 2 s 20 = 20 s	10
20	Operating Mode	R/W	Select operating mode of the controller	0–1		0 = Stop 1 = Run	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