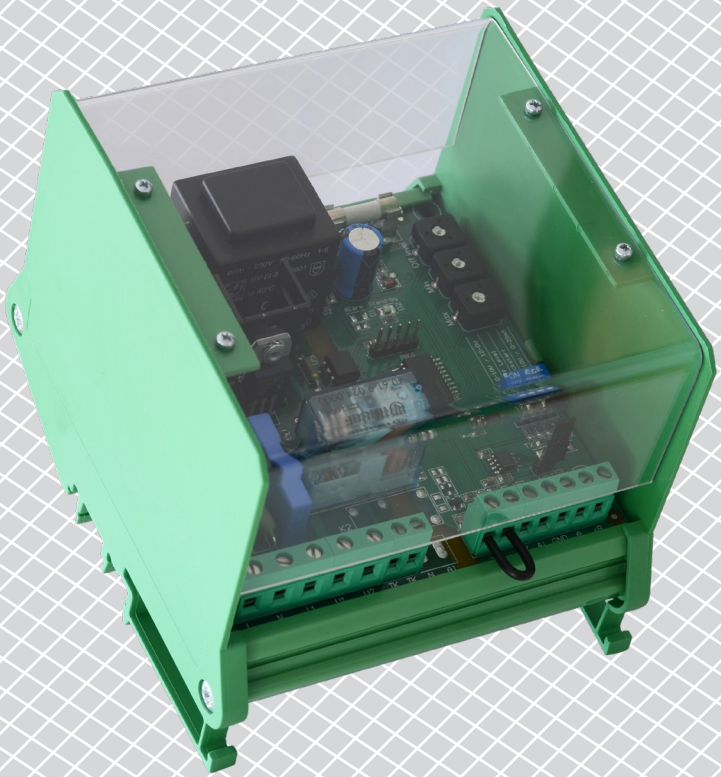
MVSS | ELECTRONIC FAN SPEED CONTROLLER WITH TK FOR DIN RAIL

Modbus register map



MODBUS REGISTER MAP

INPUT REGISTERS

		Data Type	Description	Raw Data Range	Values
1	Analog input level	unsigned int.	Analog input value depending on the selected analog input type.	0—100	0 = 0 VDC 100 = 10,0 VDC or 0 = 0 mA 100 = 20,0 mA
2	Current output voltage	unsigned int.	Actual output voltage	0, 30—100	0 = 0 % Us 30 = 30 % Us 100 = 100 % Us
3	Analog input type	unsigned int.	Type of the selected analog input	0—1	0 = 0—20 mA 1 = 0—10 VDC
4	Ascending / descending input mode	unsigned int.	Ascending or descending analog input mode depending on the selected analog input type.	0—1	0 = 10—0 VDC 1 = 0—10 VDC or 0 = 20—0 mA 1 = 0—20 mA
5	Maximum output voltage	unsigned int.	Maximum output voltage	75—100	75 = 75 % Us 100 = 100 % Us
6	Minimum output voltage	unsigned int.	Minimum output voltage	30—70	30 = 30 % Us 70 = 70 % Us
7	Enable off level	unsigned int.	Enables off level	0—1	0 = Disabled 1 = Enabled
8	Off level value	unsigned int.	Off level value depending on the selected analog input type and ascending / descending analog input mode.	0 — 40 60—100	**Ascending mode:** **Voltage** 0 = 0 VDC 400 = 4,0 VDC Current 0 = 0 mA 200 = 8,0 mA **Descending mode:** **Voltage** 100 = 10,0 VDC 60 = 6,0 VDC Current 100 = 20,0 mA 60 = 12,0 mA
9	Kick start / soft start	unsigned int.	Selects kick start or soft start	0—1	0 = Soft start 1 = Kick start

INPUT REGISTERS

		Data Type	Description	Raw Data Range	Values
10	Remote control input	unsigned int.	Remote control input	0—1	0 = Disabled 1 = Enabled
12	L1 control	unsigned int.	L1 control	0—1	0 = Off 1 = On
13	Alarm LED	unsigned int.	Alarm LED	0—1	0 = Off 1 = On
14	ON/Stand-by LED	unsigned int.	ON/Stand-by LED	0—2	0 = Off 1 = On 2 = Stand-by
15-20			Reserved, returns 0		

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

HOLDING REGISTERS

		Data Type	Description	Raw Data Range	Values	Factory Default Values
1	Device slave address	unsigned int.	Modbus device address	1—247		1
2	Modbus baud rate	unsigned int.	Modbus communication baud rate	1—4	1 = 9.600 2 = 19.200 3 = 38.400 4 = 57.600	2
3	Modbus parity	unsigned int.	Parity check mode	0—2	0 = 8N1 1 = 8E1 2 = 8O1	1
4	Device type	unsigned int.	Device type *(Read only)*	MVSS-CDM = 3009		
5	HW version	unsigned int.	Hardware version of the device *(Read only)*	XXXX	0 x 0300 = HW version 3.00	
6	FW version	unsigned int.	Firmware version of the device *(Read only)*	XXXX	0 x 0140 = FW version 1.40	
7	Operating mode	unsigned int.	Enables Modbus control and disables the DIP switch and trimmers	0—1	0 = Standalone mode 1 = Modbus mode	0
8	Output override	unsigned int.	Enables the direct control over the output. *Always settable. Active only if holding register 7 is set to 1.*	0—1	0 = Disabled 1 = Enabled	0
9-10			Reserved, returns 0			
11	Analog input type	unsigned int.	Selects the analog input type of the device. *Always settable. Active only if holding register 7 is set to 1.*	0—1	0 = 0—20 mA 1 = 0—10 VDC	1
12	Ascending / descending analog input mode	unsigned int.	Ascending / descending analog input mode. *Depends on the selected analog input type. Always settable. Active only if holding register 7 is set to 1.*	0—1	0 = 10—0 VDC 1 = 0—10 VDC or 0 = 20—0 mA 1 = 0—20 mA	1

HOLDING REGISTERS

		Data Type	Description	Raw Data Range	Values	Factory Default Values
13	Maximum output voltage	unsigned int.	Maximum settable output voltage. *Always settable. Active only if holding register 7 is set to 1.*	75—100	75 = 75 % Us 100 = 100 % Us	100
14	Minimum output voltage	unsigned int.	Minimum settable output voltage. *Always settable. Active only if holding register 7 is set to 1.*	30—70	30 = 30 % Us 70 = 70 % Us	30
15	Enable off level	unsigned int.	Enables off level. *Always settable. Active only if holding register 7 is set to 1.*	0—1	0 = Disabled 1 = Enabled	0
16	Off level value	unsigned int.	Off level value. *Depends on the selected analog input type and ascending / descending analog input mode. Always settable. Active only if holding register 7 is set to 1.*	0—40 60—100	**Ascending mode:** **Voltage** 0 = 0 VDC 40 = 4,0 VDC **Current** 0 = 0 mA 40 = 8,0 mA **Descending mode:** **Voltage** 100 = 10,0 VDC 60 = 6,0 VDC **Current** 100 = 20,0 mA 60 = 12,0 mA	0
17	Kick start / soft start	unsigned int.	Selects kick start or soft start. *Always settable. Active only if holding register 7 is set to 1.*	0—1	0 = Soft start 1 = Kick start	1
18	Kick start / soft start duration	unsigned int.	Sets the duration time. *Always settable. Active only if holding register 7 is set to 1.*	0—60	0 = 0 s 60 = 60 s	10
19	Remote control functionality	unsigned int.	Sets the remote control input mode. *Depends on the selected kick start or soft start mode. Always settable. Active only if holding register 7 is set to 1.*	0—1	0 = Normal mode 1 = Timer mode	0
20	Analog input functionality	unsigned int.	Sets the analog input functionality. *Depends on the selected kick start or soft start. Always settable. Active only if holding register 7 is set to 1.*	0—1	0 = Normal mode 1 = Logic mode	0
21	Operation timer	unsigned int.	Sets the operation time of the device when Timer mode by remote control input or Logic mode by the analog input is selected. The operation time is additional to the kick start / soft start duration times. *Always settable. Active only if holding registers 7 and 19 or / and 20 are set to 1.*	0—200	0 = 0 s 200 = 200 s	60
22-30			Reserved, returns 0			
31	Output override value	unsigned int.	Override value for the analog output. *Always settable. Active only if holding register 8 is set to 1.*	0, 30—100	0 = 0 % Us 30 = 30 % Us 100 = 100 % Us	0
32-40			Reserved, returns 0			

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/eu/3SMCenter*