SPV-8-010-XX

230 VAC
POTENTIOMETER WITH
MODBUS RTU

Modbus register map

MODBUS REGISTER MAP

INPUT REGISTERS

		Data type	Description	Raw data	Values
1	Output	unsigned integer	Output value	0—1.000	100 = 10,0 %
2	Output type	unsigned integer	Analogue / modulating output type	1—3	1 = 0—10 VDC 2 = 0—20 mA 3 = PWM
3	Output control logic	unsigned integer	Controls output to be normal (low to high) or inverted (high to low)	0—1	0 = Low to high 1 = High to low
4	Potentiometer position	unsigned integer	Actual position of the potentiometer	0—1.000	0 = 0 % 1.000 = 100 %
5—10			Reserved, return 0		

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 1 = 9.600 2 = 19.200 3 = 38.400 4 = 57.600 5 = 115.200 6 = 230.400	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	2.301—2.302	SPV-8-010-PM = 2.301 SPV-8-010-CP = 2.302	

HOLDING REGISTERS

		Data type	Description	Raw data	Values	Factory default values
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, outputs are set to 0	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	Output type	unsigned integer	Select analogue / modulating output type	1—3	1 = 0—10 VDC 2 = 0—20 mA 3 = PWM	1
12	Overwrite enable / disable	unsigned integer	Enables the direct control over output 1	0—1	0 = Disabled 1 = Enabled	0
13	Overwrite value	unsigned integer	Overwrite value for output 1. Active only if Holding register 12 is set to 1	0—1.000	0 = 0 % 1.000 = 100 %	0
14	Internal voltage source selection	unsigned integer	Selection of internal voltage source for PWM output	0—1	0 = 3,3 VDC 1 = 12 VDC	0
15	Minimum output value	unsigned integer	Miminum output value (between 0 and 40 %)	0—400	400 = 40 %	0
16	Maximum output value	unsigned integer	Maximum output value (between 60 and 100 %)	600—1.000	600 = 60 %	1.000

HOLDING REGISTERS

		Data type	Description	Raw data	Values	Factory default values
17	Output control logic	unsigned integer	Controls output to be normal (low to high) or inverted (high to low)	0—1	0 = Low to high 1 = High to low	0
18—20			Reserved, return 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/en/3SMCenter