SDP-M010-XX

POTENTIOMETER WITH MODBUS RTU, MIN & MAX SETTINGS

Modbus register map

MODBUS REGISTER MAP

INPUT REGISTERS

		Data type	Description	Raw data	Values
1	Actual output value	unsigned int	Show current value of the analogue / modulating output in percentages	0 - 1.000	200 = 20 % 1.000 = 100 %
2	Analogue / modulating output type	unsigned int	Selected analogue / modulating output type	1 - 3	1 = Voltage 2 = Current 3 = PWM
3	Output regulation control	unsigned int	Output signal regulation direction	0 – 1	0 = Minimum to maximum 1 = Maximum to minimum
4	Minimum output value limit	unsigned int	Adjusted minimum output in percentages	0 – 700	200 = 20 % 700 = 70 %
5	Maximum output value limit	unsigned int	Adjusted maximum output in percentages	750 – 1.000	750 = 75 % 1 000 = 100 %
6			Reserved, returns 0		
7—8			Reserved, returns 0		
9			Reserved, returns 0		
10			Reserved, returns 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 int	Modbus device address	1—247		1
2	Modbus baud rate	unsigned int	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 int	Parity check mode	0—2	0 = None 1 = Even 2 = Odd	1
4	Device type	unsigned int	Device type, read only	2.305—2.307	SDP-M010-DC = 2.305 SDP-M010-BT = 2.306 SDP-M010-AT = 2.307	
5	HW version	unsigned int	Hardware version of the device, read only	XXXX	0x0100 = HW version 1.0	
6	FW version	unsigned int	Firmware version of the device, read only	XXXX	0x0100 = FW version 1.0	
7			Reserved, returns 0			
8	Modbus safety timeout	unsigned int	If there is timeout set, after time with no Modbus communication, output is set to potentiometer value. **Active only if holding register 12 is set to 1.**	0—60	0 = no timeout 60 = 60 minutes	0
9	Modbus network resistor termination (NBT)	unsigned int	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 int	Resets Modbus Holding registers to default values. When finished this register is automatically reset to 0	0, 1	0 = Idle 1 = Reset Modbus registers	0
11	Analogue / Modulating output type	unsigned int	Select analogue / modulating output type	1—3	1 = Voltage 2 = Current 3 = PWM	1
12	Output overwrite enable	unsigned int	Enables the direct control over the output	0—1	0 = Disabled 1 = Enabled	0

HOLDING REGISTERS

		Data type	Description	Raw data	Values	Factory default values
13	Output overwrite value	unsigned int	Overwrite value for the regulated output in percentages. Always settable. **Active only if holding registers 12 is set to 1.**	0—1.000	200 = 20 % 1.000 = 100 %	500
14	Internal voltage source selection for PWM output	unsigned int	Selection of internal voltage source for PWM output	0 —1	0 = 3,3 VDC 1 = 12 VDC	0
15	Minimum output value limit	unsigned int	Minimum settable output voltage in percentages	0—700	200 = 20 % 700 = 70 %	0
16	Maximum output value limit	unsigned int	Maximum settable output voltage in percentages	750—1.000	750 = 75 % 1.000 = 100 %	1.000
17	Output regulation control	unsigned int	Output voltage regulation direction	0—1	0 = Minimum to maximum 1 = Maximum to minimum	0
18			Reserved, returns 0			
19			Reserved, returns 0			
20			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/en/3SMCenter***