

CO and LPG | EC fans detection

Modbus register map



MODBUS REGISTER MAP

INPUT REGISTERS					
		Data type	Description	Raw data range	Values
1	Output value	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
3–5			Reserved, returns 0		
6	CO output value	unsigned integer	CO output value in percentages	0 - 1000	500 = 50,0 %
7	LPG output value	unsigned integer	LPG output value in percentages	0 - 1000	700 = 70,0 %
8			Reserved, returns 0		
9	Sensor status	unsigned integer	Slave sensor(s) status	0, 4, 11 - 16, 99	0 = OK 4 = Preheating 11 = Sensor 1 fault 12 = Sensor 2 fault 13 = Sensor 3 fault 14 = Sensor 4 fault 15 = Sensor 5 fault 16 = Sensor 6 fault 99 = Communication problem
10	Control output mode	unsigned integer	Control output mode	0–2	0 = Off 1 = CO 2 = LPG

HOLDING REGISTERS						
		Data type	Description	Raw data range	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 check	unsigned integer	Parity check mode	0 = 8N1 1 = 8E1 2 = 8O1	0 = None 1 = Even 2 = Odd	1
4	Device type	unsigned integer	Device type. Read only		MDACM1 = 2.403	
5	HW version	unsigned integer	Hardware version. Read only	XXXX	0x0100 = HW version 1.00	
6	FW version	unsigned integer	Firmware version. Read only	XXXX	0x0121 = FW version 1.21	
7			Reserved, returns 0			
8	Modbus safety timeout	unsigned integer	After time with no Modbus communication, outputs are set to 0.	0–60	60 = 60 minutes	0
9	Modbus network resistor termination (NBT)	unsigned integer	Set device as end device on 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 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	Output value	unsigned integer	Value for output voltage in percentages	0–1.000	0 = 0 % 1.000 = 100 %	0

HOLDING REGISTERS						
		Data type	Description	Raw data range	Values	Factory default values
13	Output control mode	unsigned integer	Auto/manual output control	0–1	0 = Manual 1 = Auto	1
14			Reserved, returns 0			
15	Minimum output value	unsigned integer	Maximum output voltage in percentages	0–400	200 = 20 %	100
16	Maximum output value	unsigned integer	Reserved, return 0	600–1.000	750 = 75.0% 1.000 = 100 %	
17	PWM output frequency	unsigned integer	Selection of PWM output frequency	1–8	1 = 1 kHz 8 = 8 kHz	1
18	PWM output	unsigned integer	Selection of PWM output type: Open collector (OC) / Pull-up +12 VDC	0–1	0 = Open Collector 1 = Pull-up +12 VDC	0
19			Reserved, returns 0			
20	Number of slave devices	unsigned integer	Number of slave sensors connected	1–6	1 = 1 slave sensor connected 6 = 6 slave sensors connected	1

The free Sentera configuration and monitoring software 3SModbus can be downloaded via: <https://www.sentera.eu/en/3SMCenter>