

ALR-M1 | ALARM DEVICE

Modbus register map



MODBUS REGISTER MAP

INPUT REGISTERS					
		Data type	Description	Raw data range	Values
1	Operation status	unsigned integer	Operation status	0–3	0 = OK (green LED is ON) 1 = Warning (yellow LED is ON) 2 = Alarm (red LED and buzzer are ON) 3 = Custom (direct LED and buzzer driving is allowed)
2	Green LED	unsigned integer	Green LED status	0, 1	0 = OFF 1 = ON
3	Yellow LED	unsigned integer	Yellow LED status	0, 1	0 = OFF 1 = ON
4	Red LED	unsigned integer	Red LED status	0, 1	0 = OFF 1 = ON
5	Sound active	unsigned integer	Buzzer status	0, 1	0 = OFF 1 = ON
6	Sound mode	unsigned integer	Pulsed / continuous sound mode	0, 1	0 = Pulsed 1 = Continuous
7–10			Reserved, return 0		

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

HOLDING REGISTERS						
		Data type	Description	Raw data 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 3 = 38.400 1 = 9.600 4 = 57.600 2 = 19.200 5 = 115.200 6 = 230.400	2

HOLDING REGISTERS						
		Data type	Description	Raw data range	Values	Factory default values
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	2.200	2.200 = ALR-M	
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	
7–10			Reserved, return 0			
11	Operating mode	unsigned integer	Operation status	0–3	0 = OK (green LED is ON) 1 = Warning (yellow LED is ON) 2 = Alarm (red LED and buzzer are ON) 3 = Custom - next 4 registers are allowed	0
12	Green LED	unsigned integer	Direct control green LED (allowed in Custom operating mode only)	0, 1	0 = OFF 1 = ON	0
13	Yellow LED	unsigned integer	Direct control yellow LED (allowed in Custom operating mode only)	0, 1	0 = OFF 1 = ON	0
14	Red LED	unsigned integer	Direct control red LED (allowed in Custom operating mode only)	0, 1	0 = OFF 1 = ON	0
15	Buzzer Operating mode	unsigned integer	Buzzer control (allowed in Custom operating mode only)	0, 1	0 = OFF 1 = ON	0
16	Sound mode	unsigned integer	Pulsed / continuous sound	0, 1	0 = Pulsed 1 = Continuous	0
17	Start-up action	unsigned integer	Indication on start up	0, 1	0 = Nothing 1 = All LEDs lighting for 1 s	1

HOLDING REGISTERS						
		Data type	Description	Raw data range	Values	Factory default values
18			Not used			
19	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
20	Modbus resistor termination (NRT)	unsigned integer	Modbus termination resistor connection	0, 1	0 = NBT disconnected 1 = NBT connected	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>