

# ALR -M1

## Alarm signalling unit for harsh environments



ALR -M1 is an audible and visual signal device intended to generate alarms and indicate failures or alerts. It needs a master unit, such as the Sentera RDPU or any BMS or master module that is able to write a value in the correct Modbus holding registers. The device is Power over Modbus supplied and all parameters are accessible via Modbus RTU.

### Key features

- Three LED indicators activated via Modbus RTU
- Piezo buzzer activated via Modbus RTU
- Power over Modbus
- RJ45 or terminal block connection
- 3 open collector outputs for supplying external devices such as LED indicators or relays
- Bootloader for uploading new firmware via Modbus RTU

### Technical specifications

Power supply	24 VDC, Power over Modbus	
Open collector outputs	24 VDC / 100 mA per output	
Maximum Power consumption	0,48 W	
Nominal or average power consumption in normal operation	0,36 W	
Imax	20 mA	
Protection standard	IP65 (according to EN 60529)	
Ambient conditions	Temperature	-0—50 °C
	Rel. humidity	5—95 % rH (non-condensing)



### Wiring and connections

#### INPUT

##### RJ45 connection <sup>(1)</sup>



<b>24 VDC</b>	Supply voltage 24 VDC
<b>GND</b>	Supply voltage, ground
<b>A</b>	Modbus RTU communication, signal A
<b>/B</b>	Modbus RTU communication, signal /B

##### Terminal block connection <sup>(1)</sup>

<b>V+</b>	Supply voltage 24 VDC
<b>GND</b>	Supply voltage, ground
<b>A</b>	Modbus RTU communication, signal A
<b>/B</b>	Modbus RTU communication, signal /B

#### OUTPUT (optional)

<b>V+</b>	24 VDC output supply connection
<b>Green</b>	Digital output 1 (open collector, max. 100 mA) to control a relay or external indication light
<b>Yellow</b>	Digital output 2 (open collector, max. 100 mA) to control a relay or external indication light
<b>Red</b>	Digital output 3 (open collector, max. 100 mA) to control a relay or external indication light
<b>Output connections</b>	Spring contact terminal block: pitch 3,5 mm; 1,5 mm <sup>2</sup> ; max. 100 mA per output

<sup>1)</sup>Attention! ALR -M1 needs to be supplied via the RJ45 connector or via the connection terminals. Do not connect the device via the RJ45 connector and the terminal block simultaneously!

### Modbus registers



The Sensistant Modbus configurator allows you to easily monitor and/or configure Modbus parameters.

The parameters of the unit can be monitored / configured through the 3SModbus software platform. You can download it from the following link:

<https://www.sentera.eu/en/3SMCenter>

For more information about the Modbus registers, please refer to the product Modbus Register Map.

### Standards

- EMC directive 2014/30/EC
  - EN 61000-6-1:2007 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
  - EN 61000-6-3:2007 Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments Amendments A1:2011 and AC:2012 to EN 61000-6-3
- RoHS Directive 2011/65/EC



### Global trade item numbers (GTIN)

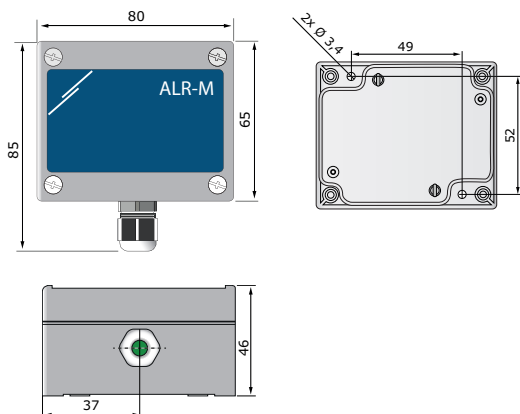
Packaging	ALR-M1
<b>Unit</b>	05401003000045
<b>Carton</b>	05401003300008

# ALR -M1

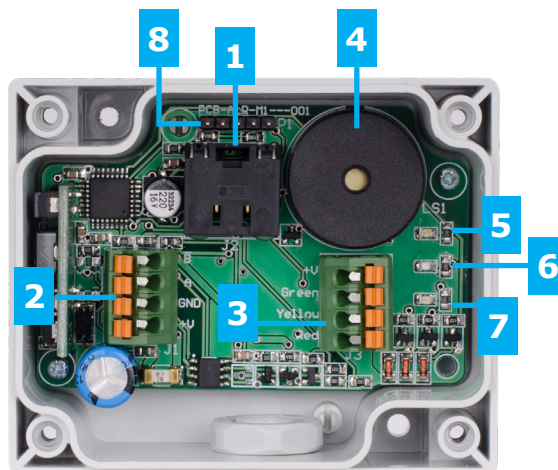
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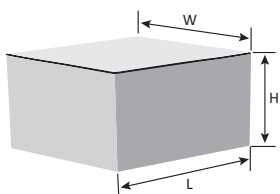
## Fixing and dimensions



## Indications and settings



## Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
ALR -M1	Unit (1 pc.)	85	95	70	0,129 kg	0,149 kg
	Carton (10 pcs.)	485	175	84	1,29 kg	1,64 kg
	Box (60 pcs.)	580	370	280	7,74kg	10,83 kg

1 - RJ45 Socket <sup>(1)</sup>		Plug the communication and power cable into the socket
2 - Supply terminal block <sup>(1)</sup>		Power supply and communication connection
3 - Output terminal block		Output connection
4 - Piezo buzzer		Audible alarm signal
5 - Red		Continuous Visual alarm signal accompanied by audible alarm signal
		Blinking Bootloader mode activated
6 - Yellow		Continuous Warning
7 - Green		Continuous OK
8 - PROG header, P1		Put a jumper onto pins 1 and 2 and wait for at least 5 seconds to reset the Modbus communication parameters
		Put a jumper onto pins 3 and 4 and restart the supply to enter bootloader mode

<sup>(1)</sup>Attention! ALR -M1 needs to be supplied via the RJ45 connector or via the connection terminals. Do not connect the device via the RJ45 connector and the terminal block simultaneously!