Quickstart Octalarm EM-8001

MEASURING - ALERTING - CONNECTING
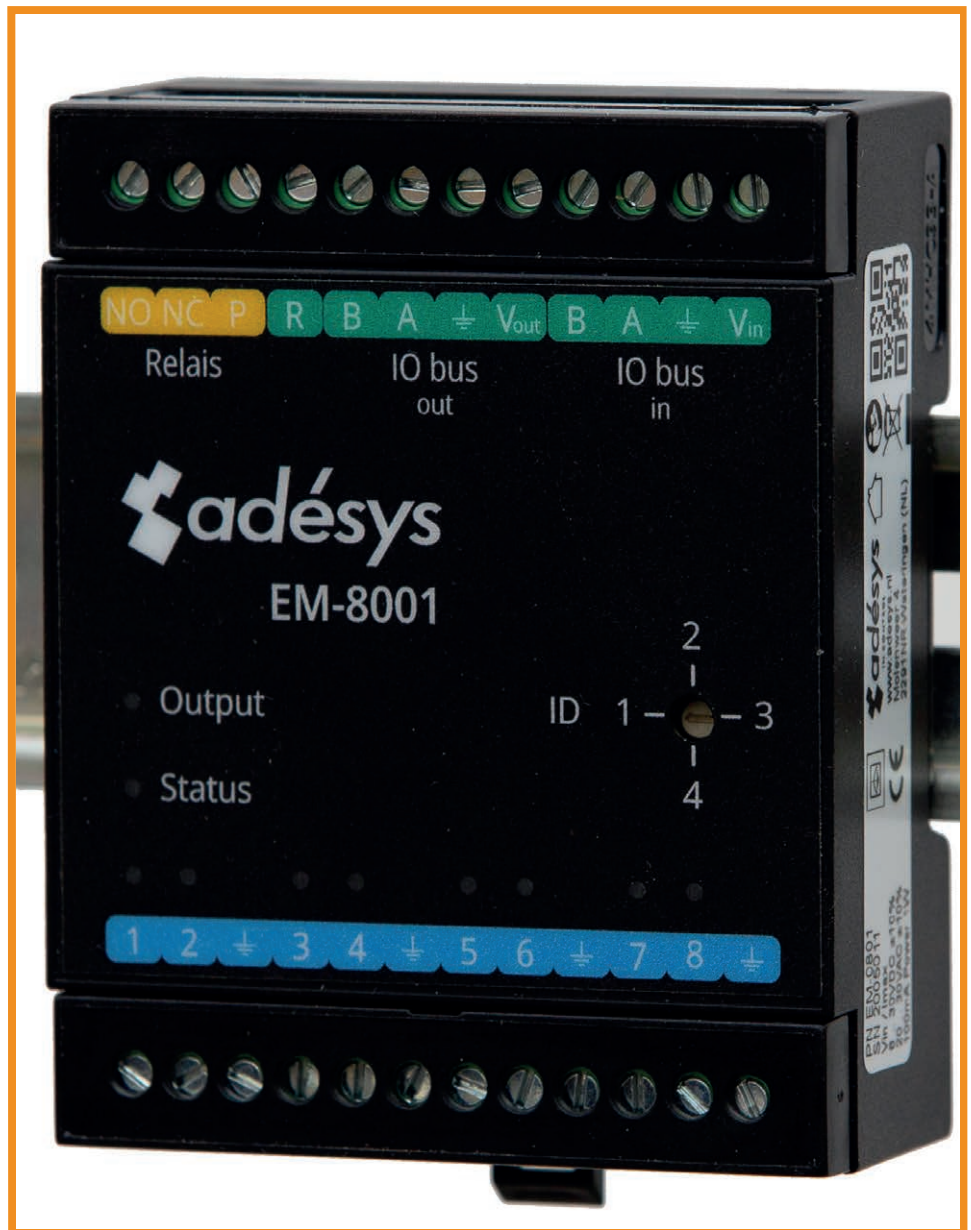
1. Technical specifications

System properties		
Contact inputs	Voltage	30VAC of 30VDC max
	V_{il}	<4.4V
	V_{ih}	>2.5V
	Note	10k pull-up to 12VDC Input can be a contact to GND or a voltage
Relay contacts	Max load	30VDC / 1A, 30VAC / 1A (resistive load)
I/O bus	Cable type	RS485 Modbus cable (22AWG), *see chapter 2.2 for further explanation*
	Length	< 1km
	Termination	120Ω
Power (external)	Consumption	DC: 1 Watt AC: 1.5 Watt (rms), rectified on 1 side 5 Watt (loading capacitor)
	Imax	0,22A
	Voltage range	8 - 30VDC (When using the relay, the power supply must be at least 15VDC) 20 - 30VAC
Life expectancy (Calculated MTBF)		more than 10 years

Enclosure and operating conditions	
Enclosure	DIN-Rail (TS35) and Wall mounting
Dimensions (W x H x D)	71 x 90 x 33 (mm)
Weight	135gr
Operating temperature	-30°C ... +70°C
Storage temperature	-40°C ... +85°C
Air humidity	20% - 85% (not condensed)
IP code	IP30
Maximum heigth	To 2000 metres

Reglementen	
EMC	Emission: EN 55032 (2012) + AC (2013), class B Immunity: EN 55024 (2010), 10Vrms
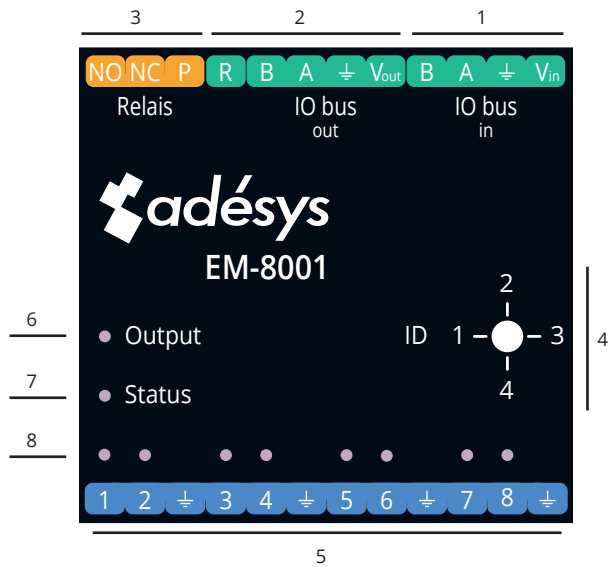
Front view EM-8001 (external module)

Description front view	
1	IO bus in
2	IO bus out
3	Relay contacts
4	Slave ID
5	Inputs

LED functionality front view			
LED		Color	Status
6	Output	Green	Relais uitgang actief
7	Status	Green pulse	Werkend
		Red	Error
8	Inputs	Alert status — Green	Idle
		Alert status — Red	Active
		Alert status — Orange	Accepted
		Blue	Confirmation selection Slave ID

PN EM8001
SN 2034-4561
Vin / Imax
8 .. 30VDC ±10%
20 .. 30VAC ±10%
100mA Power 1W
www.adesys.nl
Molenweer 4
2291NR Wateringen (NL)

EM-8001 Marking plate label Enclosure (70 x 12mm)

2. Installation

2.1. Mounting the external module (EM-8001)
The EM-8001 can be mounted to the wall and to 35 mm DIN rails. When mounted to a DIN rail, the module can easily be used in system cabinets.

2.2. Connecting the external module (EM-8001)

Powered by Octalarm-Touch
To connect the EM-8001 to the Octalarm-Touch, you need a 2-pair, 4-core cable. The cores are for:
- Pair 1: signal line A and B;
- Pair 2: power supply and ground wire.

The wiring diagram is shown on the front sticker.

! *When using the relay, an external power supply is required. The power supply must be at least 15VDC.*

External power supply
When using the EM-8001 with an external power supply, you need a 1-pair, 3-core cable. The cores are for:
- Pair 1: signal line A and B;
- Core: ground wire.

The wiring diagram is shown on the front sticker.

! *The power supply wire of the Octalarm-Touch must not be connected to the EM-8001.*

Signal lines for both power supply modes
The wires must be connected to the connector corresponding to the marking on the front sticker. The final EM-8001 on the bus will have to be terminated with a 120 ohm resistor. The EM-8001 features an integrated resistor: simply connect the 'R' and 'B' externally on the screw connector.

EM-8001 / Octalarm-Touch wiring diagram

2.3. Slave ID
The EM-8001 works with a master/slave structure, in which the Octalarm-Touch acts as the master and the EM-8001 as the slave. Slaves must have a unique Slave ID.
To set the Slave ID on the modules, all you need is a screwdriver. When turning the screw, the LED above the corresponding input number will turn blue, corresponding to the selected Slave ID.

Led status indication (idle)

Number of flashes in idle	
1x	Slave ID 1
2x	Slave ID 2
3x	Slave ID 3
4x	Slave ID 4

2.4. Power supply
When mounted close together, the EM-8001 can be powered by the Octalarm-Touch. When the units are further apart (> 100 m), it is recommended to always use an external power supply. This external power supply must meet the prescribed specifications and can be connected to the V and ground. Adésys can supply the SV-19 (DIN-rail-mounted power supply) or the SV-20 (mains adapter) for this purpose.

! *When using the relay, an external power supply is required. The power supply must be at least 15VDC.*

3. Safety rules

To use the EM-8001 properly, please read and follow these safety rules:
- mount the device on a solid panel or wall;
- protect the EM-8001 against a surge by using a grounded power connection;
- use the EM-8001 in an indoor setting, the device needs to be protected form direct weather exposure;
- the operating temperature is -30°C ... 70°C. Using the EM-8001 outside this temperature range my result in damage;
- this equipment is not suitable for use in locations where children are likely to be present.

4. Storage and transport

- There must be no flammable or explosive materials nearby.
- The temperature must be within the -40°C ... 85°C range.
- Do not store this product in a place exposed to direct sunlight.

5. Faults and repair

When a fault has occurred please contact Adésys service helpdesk. By opening the Octalarm-Touch the warranty is void. Repairing the Octalarm-Touch is only allowed by Adésys appointed experts.

6. Disposal

The EM-8001 is an electronic device. Electrical and electronic equipment should not be mixed with general household waste. Please contact the installer or Adésys for more information.

7. Guarantee and liability

Every EM-8001 undergoes a series of extensive tests at Adésys prior to dispatch. Adésys also gives a two year guarantee.
The guarantee becomes invalid if:
- the defect is caused by gross negligence or incompetent installation;
- the appliance has been repaired and/or altered without Adésys' permission;
- it is established that the serial number has been removed or damaged.

Adésys accepts no liability whatsoever for consequential damage caused by incompetent use of and/or malfunctions in the EM-8001.

More information on the website