



EMI-One

User Manual

v.1.8

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Safety Rules



EMI-One is an information management system, and according to current regulations, is not a security system. It cannot be used in applications requiring property security certificates.

This device may only be operated by qualified personnel and after careful consideration of this manual.

Do not interfere with the design of the device, or carry out repairs yourself.

Sensors and actuators should only be connected to the designated places. Incorrect connection will cause permanent damage to the system and the sensors.

The manufacturer is not liable for any loss due to improper use or operation of the system.

The manufacturer grants certification and warranty for the device only if powered by the original power supply included in the set.

If you have any problems or concerns, please contact us:

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The contents of this manual are for informational purposes only, and the manufacturer is not liable for any damages resulting, or arising out of the use of the EMI-One system in accordance with, or not in accordance with the contents of this manual, and in particular for damages of devices other than-EMI One system. In other cases, the manufacturer's liability is limited to the sum

insured by the manufacturer in the business liability insurance. The information provided and made available in this manual is not a complete description for the use and operation of the EMI-One system. In any case, people interested in obtaining additional information regarding the use of the EMI-One device should consult the manufacturer. Any content contained in this manual, as presented for informational purposes, is up to date at the time of publication, and the manufacturer cannot guarantee its relevance or suitability in all situations, at all times. Any and all content contained in this manual may only be used for non-commercial private use. The content and materials provided in this manual may not be used for public or commercial purposes without the written permission of the manufacturer.

Both the way EMI-One device works, and the content of this manual may change, for development purposes, without notifying its users.

For the most up-to-date information on our cabinet monitoring / access control products, including downloads and the latest version of this manual, please visit:

<https://www.apra.de/produkte/schrankueberwachung-zutrittskontrolle/>

Introduction

EMI-One is a device integrating the functionality of monitoring of environmental parameters with access control.

Basic features:

- 4 independent 12-V output channels for controlling terminal devices (e.g. a solenoid handle, lighting, or ventilation system),
- 4 independent binary inputs with additional parameterisation function to handle fire, gas, flood, motion, power failure, etc. sensors,
- possibility to connect 2 temperature sensors, or a temperature and a humidity sensor (e.g. for measurement in 2 places of the cabinet)
- extended alarms triggered by input status or temperature/humidity value,
- controlling, reading, and configuring the device settings using a transparent interface via a web browser (built-in web-server).
- control functions access – RFID readers (cards, key rings, etc.) for UNIQUE, MIFARE, HID, HITAG standards, and biometric readers,
- Simple Network Management Protocol (SNMP) support with Trap notifications,
- Simple Mail Transfer Protocol (SMTP) support (the ability to send e-mail notifications in the event of an alarm),
- text message and email notifications (with SSL support) via GSM (additional module required),
- 12-V power supply,
- dedicated multi-device management software for long-term recording and parameter analysis.

Hardware

The EMI-One monitoring system has a compact, 196 x 71 x 31-mm, plastic housing. Input, output, and power outlets are located on the rear panel, and are vary according to function and application.

All sensors and actuators supplied by the apra-optinet company are provided with special plugs matching the appropriate socket type.

You can also connect your own sensors and devices. Only trained and qualified personnel can connect the system, and only after contacting apra-optinet representative.

Connections on the rear panel:



Fig. 1

- **Power** – a power socket of the device using an external 12-V stabilised power supply (included).

NOTE: The socket is galvanically connected to the 12-V input and output jacks.

- **Ethernet** – used to connect to the network. Meets the 100BASE-T standard (10/100MBit/s).
- **RS485** – RS485 bus connector used for communication with apra-optinet peripherals,
- **Sensors** – RJ-12 connectors used for communication with microprocessor sensors and readers:
 - **Combo** – used to connect the combo sensor (temperature and humidity)

- Temp/RFID – used to connect the temperature sensor, or additional RFID readers (use of temperature sensor and reader simultaneously requires a dedicated distributor)

Connect the sensors and the reader only with the original cables provided by apra-optinet!

- **Inputs** – 3-pin connectors in this group numbered from 1 to 4 are used to connect any device with no voltage contact (NC/NO).

Sample applications:

- Door sensor,
- Flood sensor,
- Smoke sensor,
- Alarm contact with UPS,
- Alarm contact from the fire extinguishing system.

Make sure the detachable contacts of the device were connected to the contacts marked "+" and "-" when connecting.

The "12-V" contact is galvanically connected to the supply voltage, and can be used for terminal devices requiring additional external power supply.

- **Outputs** – 2-pin connectors marked with numbers 1 to 4 are used to connect the final actuators such as:
 - Handles with electromagnetic insert,
 - Lighting,
 - Ventilation system,
 - Sounder.

The contact marked "+" is permanently galvanically connected to the supply voltage of the device, while the "-" contact, depending on the logic state, makes or breaks from the ground.

The maximum continuous current consumption for a single output cannot exceed 500 mA, and the sum of the currents for outputs 1 to 4 cannot exceed 700mA.

If you need to control devices with a supply voltage greater than 12 V, or with increased current consumption, use a dedicated relay.

Never connect a voltage above 12 V to the device connectors!

Only 4, 3 or 2-pin dedicated TBW connectors should be used for the RS-485, output, and input connectors.

The device is equipped with LEDs illuminating the logo on the front panel of the device, and on the top of the housing, which, depending on the state of the device, means:

- Continuous blue – the device is in normal mode, no alarms, configuration settings locked (safe mode),
- Flashing blue – the device is in setup mode. It is recommended to deactivate this mode after reaching the desired configuration,
- Continuous red – the device reached in alert threshold,
- Quick flashing red – an internal failure of the device, please contact apra-optinet.

To configure system settings, remote and local users must switch to setup mode. For this purpose, use a thin object up to 2 mm in diameter (e.g. an office paper clip) to press and hold for about 3 seconds the button on the front panel (next to the manufacturer's logo), until you hear a single beep.

To restore the device's default settings, hold down the button for about 6 seconds, until you hear three beeps.

System configuration for first startup

Before you start to configure your settings, you must first connect your device properly:

- Connect the RJ-45 power cord to the Ethernet port (use a straight cable for a network switch, or a crossover cable for direct connection to the network card of the computer),
- Connect actuators (output) and sensors (optional),
- Connect the power supply to the unit using the 12-V power supply included in the set.

Proper first startup of the device is signalled by a flashing blue light of the logo, situated on the front panel and on the top of the housing.

System configuration is performed using a web browser installed on a computer connected to the device through a network.

In the address field of the browser, enter the address of the device (**192.168.1.10 by default**). The first time you log in, you should use the following data:

User Name: admin

Password: admin

It is recommended to change the default password for the administrator account.

The web interface was designed to work with the current version of the following browsers, with JavaScript enabled: Google Chrome, Microsoft Edge, Mozilla Firefox, Microsoft IE.

Support for embedded web server

Upon successful login, the user has access to the device interface, which consists of the following parts:

- **Status** – the status page of the device, displayed by default,
- **Settings** – pull-down menu with sub-pages for network settings, outputs, inputs, sensors, alerts, time, text, e-mail and SNMP notifications,
- **Access Control** – the user configuration section,
- **Log** – a history of system events.

Test Cabinet


Status

Settings

Access Control

Log

EMI One



POWER OUTPUTS 12 V

O1	Haandle Front	OFF	ON/OFF
O2	Handle Rear	OFF	ON/OFF
O3	LED Lamp	OFF	ON/OFF
O4	Ventilation	OFF	ON/OFF

SENSORS

S1	Hot Aisle	TEMPERATURE	22.37 °C
S2	Cold Aisle	TEMPERATURE	23.00 °C
		HUMIDITY	29.70 %

INPUTS

I1	Front Doors	[NC] [PARAM]	OPEN
I2	Handle Contact	[NC] [PARAM]	OPEN
I3	Gas Detector	[NO]	OPEN
I4	Flood Detector	[NO]	OPEN

Fig. 2

Status tab

POWER OUTPUTS 12 V			
O1	Haandle Front	ON	ON/OFF
O2	Handle Rear	OFF	ON/OFF
O3	LED Lamp	OFF	ON/OFF
O4	Ventilation	OFF	ON/OFF

SENSORS			
S1	Hot Aisle	TEMPERATURE	22.37 °C
S2	Cold Aisle	TEMPERATURE	23.10 °C
		HUMIDITY	29.10 %

INPUTS			
I1	Front Doors	[NC] PARAM	OPEN
I2	Handle Contact	[NC] PARAM	OPEN
I3	Gas Detector	[NO]	OPEN
I4	Flood Detector	[NO]	OPEN

Fig. 3

The status page shown in Figure 3 consists of 3 sections which correspond to the parameters for the outputs, sensors, and inputs.

For each of the 4 outputs, the following data is shown:

- custom name for the output, customisable by the user,
- current state with additional green colour for low state, and red colour for high state,
- buttons to change the state of the output.

Parameters of the measuring part of the sensors are:

- custom name for the output, customisable by the user,
- determination of the measured volume,
- the result is accurate to 2 decimal places.

The section for analogue inputs includes:

- custom name for the input, customisable by the user,
- input mode – optionally additionally parametric NC/NO (Normally Closed/Normally Open),
- current status of the input – Open or Closed, and after selecting the parametrisation function: Error.

The background colour in the window indicates the state of the given input, and depends on whether its predefined (normal) status is at the given moment identical with the current state. Possible colours are:

- Green if the input is normal (proper)
- Blue if the input is in the opposite status to normal (e.g. an open contact for NC type)
- Red only if the sensor supports the parameterisation function, and has been activated from the settings, the system can also detect the tamper status.

Values on the status page are updated by refreshing the content at a frequency of 1 to 60 seconds, as defined by the user.

Settings tab

When you select the SETTINGS button, an additional menu is displayed containing the following options:

- **General** – general device settings, network parameters, time, and SNMP
- **I/O** – configuration of input and output properties,
- **Sensors** – configuration for a temperature sensor, and a temperature and humidity sensor,
- **Notifications** – configuration for text and e-mail notifications,

General Settings

Basic Settings

BASIC SETTINGS	
MAC ADDRESS :	00.08.DC.34.00.62
IP ADDRESS :	192.168.1.10
IP PORT :	80
SUBNET MASK :	255.255.255.0
DEFAULT GATEWAY :	192.168.1.1
DNS SERVER ADDRESS :	192.168.1.1
SERVER IP :	192.168.1.123
DEVICE LABEL :	EMI - One Web Server
CARD READER TYPE :	UNIQUE ▾
REMOTE HANDLE CONTROL :	<input checked="" type="checkbox"/>
TWO STAGE AUTHORISATION (PAIRS) :	<input type="checkbox"/>
<div>SAVE SAVE & RESTART</div>	

Fig. 4

This section, shown in Figure 4, gives the following basic settings of the device:

- **MAC Address** – a field which shows the address assigned to the device, an information value,
- **IP Address** – the address to be used by the system, assigned by the administrator,
- **IP Port** – the port number used to connect to the web server, assigned by the administrator,
- **Subnet Mask** – the subnet mask in which the module works, assigned by the administrator,
- **Default Gateway** – the default gateway IP address for the network in which the device is running,
- **DNS Server** – the DNS server address required for proper NTP and SMTP protocols,
- **Server IP** – the server address where the dedicated software will run, and at the same time an update server,
- **Device Label** – the device name displayed in the title of the main page, and in the description of the browser window. It allows you to differentiate between many EMI-One systems working in the same network. The maximum length of the name is 16 characters.
- **Reader Type** – reader type configuration, select the type which will be used with the device,
- **Remote Handle Control** – if this box is checked, the system will allow you to remotely control (via a website) the **Door Handle** and **Pulse 200 ms** outputs. If the device, for safety reasons, needs to locally open the handles with an electromagnetic door strike (using an RFID or a biometric reader), leave this field unchecked. This setting does not affect the outputs configured as other types (Fan, Light, Flasher, Buzzer).
- **Two-Stage Authorisation** – 2-stage authorisation activation – recommended for areas requiring special protection. With this function enabled, in order to activate the output data (e.g. open the door) **a pair of identifiers must be used in a given moment, one after another in no more than 10 seconds**. In addition, a given pair of users must have

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permission to activate the given output (fields checked for the corresponding output for both IDs).

NOTE: Select and save the type of reader before connecting it. Selecting the wrong option may damage your system.

Save settings using 2 buttons:

- **Save** – saves the parameters without restarting the device, changes made only after manual restart (by disconnecting the system power supply),
- **Save & Restart** – saves the parameters, and then automatically restarts the device with the newly entered settings.

If you change the IP address of your system, it is necessary to manually update it in the browser address field!

Time Settings

TIME SETTINGS	
NETWORK TIME ENABLE :	<input checked="" type="checkbox"/>
DATE :	09 / 05 / 2017
TIME :	14 : 07 : 42
NTP SERVER :	0.pool.ntp.org
NTP TIMEZONE :	GTM+2 ▼
<div>SAVE UPDATE TIME</div>	

Fig. 5

The section shown in Figure 5 is used to set the time in the system clock used when saving events to the system log.

In the case of unchecked auto-synchronisation with network time, enter the date in the day/month/year format, and the current time in gg:mm:ss format.

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If the Network Time Enable option is checked, the manually entered values are not taken into account, and the time synchronisation with the selected server is done every full hour.

External Fan Settings

EXTERNAL FAN SETTINGS	
SPEED RANGE :	<div>10</div> - <div>70</div> %
TRESHOLD TEMPERATURE :	<div>30</div> °C
<div>SAVE</div>	

Fig. 6

Configuration values in the section shown in Figure 6 are used by the apra-optinet ventilation system controlled via the RS-485 interface.

- **Speed Range** – defines the permissible range of rotation speed of the ventilation system expressed as a percentage,
- **Threshold Temperature** – the threshold temperature at which the unit starts the ventilation system at the set speed defined in the lower Speed Range field.

SNMP Settings

SNMP SETTINGS	
SNMP PORT :	<div>161</div>
COMMUNITY :	<div>.....</div>
TRAP DESTINATION IP 1 :	<input type="checkbox"/> <div>192.168.1.100</div>
TRAP DESTINATION IP 2 :	<input type="checkbox"/> <div>192.168.1.101</div>
<div>SAVE</div>	

Fig. 7

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The settings in the section shown in Figure 7 apply to the SNMP agent built into the device.

- **SNMP Port** – the port used for SNMP Get queries
- **Community** – the SNMP name used to communicate with EMI-One
- **Trap Destination 1 & 2** – IP addresses of devices on the network to which SNMP Trap messages will be sent. By default, sending SNMP Trap messages is disabled. To enable them, select the control, and then enter the SNMP Trap Manager IP address. **If the entered address does not exist on a given subnet, this may cause a slowdown in the system.**

I/O Settings

Output Settings

OUTPUTS SETTINGS			
O1	<input type="text" value="Haandle Front"/>	<input type="text" value="Door Handle"/>	<input type="text" value="OR"/>
O2	<input type="text" value="Handle Rear"/>	<input type="text" value="Door Handle"/>	<input type="text" value="OR"/>
O3	<input type="text" value="LED Lamp"/>	<input type="text" value="Light"/>	<input type="text" value="OR"/>
O4	<input type="text" value="Ventilation"/>	<input type="text" value="Fan"/>	<input type="text" value="OR"/>
<input type="button" value="SAVE"/>			

Fig. 8

The section shown in Figure 8 contains the basic settings for the system outputs:

- **Label** – the name of the output, allowing you to easily distinguish which device is connected to it. This name is displayed on the status page, and is used in the system log, and sent with notifications. The maximum length of the name is 14 characters.
- **Type** – a dropdown list defining the type of device connected to the given output. The options include:

- Door Handle – a handle with an electromagnetic door strike, in case of output control keeps high status for 5 seconds, and then automatically switches off,
- Fan – a fan, after switching to high status remains in it until a manual change,
- Light – lighting, after switching to high status remains in it until a manual change,
- Flasher – an optical signal, after switching to high status remains in it until a manual change,
- Buzzer – a sound signal, after switching to high status remains in it until a manual change,
- Pulse 200ms – a single trigger pulse, when the output is in high status, it is maintained for 200 ms, and then automatically changes to low status.
- **Logic Condition** – a condition used by the logic of the automatic control system triggered by the input status, and the measured values of temperature and humidity. Depending on the setting:
 - OR – any condition fulfilled in which the control has been defined for the output will change the status of the output,
 - AND – all conditions fulfilled in which the control has been defined for the output will change the status of the output,

INPUTS SETTINGS													
	Label	Mode	Condition	Time	O1	O2	O3	O4	Alarm	Buzz	Trap	SMS	Mail
I1	<input type="text" value="Front Doors"/>	NC <input checked="" type="radio"/> NO <input type="radio"/> PARAM <input checked="" type="checkbox"/>	OPEN ▾	<input type="text" value="10"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I2	<input type="text" value="Handle Contact"/>	NC <input checked="" type="radio"/> NO <input type="radio"/> PARAM <input checked="" type="checkbox"/>	OPEN ▾	<input type="text" value="10"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I3	<input type="text" value="Gas Detector"/>	NC <input type="radio"/> NO <input checked="" type="radio"/> PARAM <input type="checkbox"/>	CLOSED ▾	<input type="text" value="10"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I4	<input type="text" value="Flood Detector"/>	NC <input type="radio"/> NO <input checked="" type="radio"/> PARAM <input type="checkbox"/>	CLOSED ▾	<input type="text" value="10"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="button" value="SAVE"/>													

Fig. 9

The section shown in Figure 9 contains the basic settings for the system inputs:

- **Label** – the name of the input, allowing you to easily distinguish which sensor is connected to it. This name is displayed on the status page, and is used in the system log, and sent with notifications. The maximum length of the name is 14 characters.
- **Mode** – operation logic of the sensor, available options:
 - NC (normally closed) – normal status occurs when the input is closed.
 - NO (normally opened) – normal status occurs when input is opened.

If a sensor is equipped with a parameter, you can use the additional PARAM option, which detects sensor tampering (ERROR input status).

- **Condition** – condition which is fulfilled for the action to be performed, the options available are OPEN, CLOSED, and ERROR (tampering detected only after activating this function beforehand),

- **Time** - parameter defines how much time (in seconds) the device will wait before taking any action (O1 to O2 and alarm filed) when state of Input will change and **Condition** is met.
- **O1 to O4** – the selection will switch the output into high status when the logical condition is fulfilled, and to a low status after its completion. The control condition of the output is influenced by the setting of the logical condition in the Output Settings.
- **Alarm** – checking this option activates the alarm function triggered by input status, **activation is required for Buzzer/SNMP Trap/Text, and E-mail notifications!**
- **Buzz** – checking this option activates a built-in sound alert for the alarm,
- **Trap** – checking this option activates automatic SMTP Trap notification in case of an alarm, it is necessary to correctly configure destination addresses for SNMP Trap notifications in the SNMP Settings section,
- **SMS** – checking this option activates text notifications to defined recipients, an additional GSM module is required for this function,
- **Mail** – checking this option activates e-mail notifications to defined recipients, an additional GSM module is required for this function.

Sensor Settings

SENSORS SETTINGS													
	Label	Condition	Hyst	O1	O2	O3	O4	Alarm	Buzz	Trap	SMS	Mail	
S1	Hot Aisle	> 30 °C	4 °C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		> 40 °C	4 °C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		> 30 °C	4 °C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S2	Cold Aisle	> 40 °C	4 °C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		> 60 %	4 %	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		> 80 %	4 %	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<div>SAVE</div>													

Fig. 10

The section shown in Figure 10 contains the basic settings for temperature and combo (temperature/humidity) sensors. For each measured value, it is possible to configure 2 independent alarm thresholds. The following fields define:

- **Label** – a proprietary name of the sensor, which allows for easy identification of its position in the cabinet. This name is displayed on the status page, and is used in the system log, and sent with notifications. The maximum length of the name is 14 characters.
- **Condition** – a condition when met triggers an action, the setting contains a threshold above or below which, depending on the selected character (majority or minority), the alarm will be triggered,
- **Hyst** – the hysteresis value for a given alarm threshold, the recommended value is 4°C,
- **O1 to O4** – the selection will switch the output into high status when the condition is fulfilled, and to a low status after its completion. The control condition of the output is influenced by the setting of the logical condition in the Output Settings.
- **Alarm** – checking this option activates the alarm function triggered by the result of the given measurement, **activation is required for Buzzer/SNMP Trap/Text, and E-mail notifications!**
- **Buzz** – checking this option activates a built-in sound alert for the alarm,
- **Trap** – checking this option activates automatic SMTP Trap notification in case of an alarm, it is necessary to correctly configure destination addresses for SNMP Trap notifications in the SNMP Settings section,
- **SMS** – checking this option activates text notifications to defined recipients, an additional GSM module is required for this function,
- **Mail** – checking this option activates e-mail notifications to defined recipients, an additional GSM module is required for this function.

Notification Settings

The EMI-One monitoring and access control system can also be equipped with an external GSM module, which enables sending of text message and e-mail (SMTP SSL) notifications. With the use of a GSM network, you can be sure important information will reach you regardless of potential problems on the Ethernet connector.

Text message notification settings

SMS NOTIFICATION SETTINGS	
SMS NOTIFICATION ENABLE :	<input checked="" type="checkbox"/>
PHONE NUMBER 1 :	<input type="text"/>
PHONE NUMBER 2 :	<input type="text"/>
PHONE NUMBER 3 :	<input type="text"/>
<div>SAVE SEND TEST MESSAGE</div>	

Fig. 11

The section shown in Figure 11 contains the basic parameters related to text message notification:

- **SMS Notification Enable** – activation of the text message notification function – NOTE: this requires the presence of an external GSM module in the system!
- **Phone Number 1 to 3** – phone numbers to be sent in the xxxxxxxxx format, or with area code 00xxxxxxxxxx (without spaces, hyphens, etc.)
- **Send Test Message** – a button to test the settings by sending a test message to the previously saved telephone numbers.

E-mail Notification Settings

MAIL SETTINGS	
MAIL NOTIFICATION ENABLE :	<input type="checkbox"/>
LOCAL SMTP CLIENT / GSM GATEWAY :	<input type="checkbox"/> / <input type="checkbox"/>
SERVER :	<input type="text" value="example.server.com"/>
LOCAL PORT / GSM PORT :	<input type="text" value="25"/> <input type="text" value="25"/>
ENABLE SSL (GSM ONLY) :	<input type="checkbox"/>
USERNAME :	<input type="text" value="user"/>
PASSWORD :	<input type="password" value="*****"/>
DESTINATION ADDRESS 1 :	<input type="text"/>
DESTINATION ADDRESS 2 :	<input type="text"/>
DESTINATION ADDRESS 3 :	<input type="text"/>
<div>SAVE CONFIGURE GATEWAY SEND TEST MESSAGE</div>	

Fig. 12

The section shown in Figure 12 includes settings related to e-mail notification:

- **Mail Notification Enable** – activates the e-mail notification feature
- **Local SMTP Client** – activates the built-in SMTP client of the EMI device to send e-mail notifications to non-encrypted servers,
- **GSM Gateway** – activates the SMTP client in the GSM gateway for sending e-mail notifications, also supports servers requiring encryption (SSL),
NOTE: the GSM module (local or remote) is required for operation!
- **Server** – the address of the SMTP mail server from which you want to send messages,
- **Local Port/GSM Port** – the SMTP mail server ports of the account from which you want to send messages. The value from the left field is used by the customer built into the EMI device, while the right-hand value by the GSM module. Standard is 25/587 for unencrypted connections, and 465 for encrypted connections.

- [Enable SMTPS](#) – activates encrypted connection – only with GSM (if required by client server, details in configuration descriptions of given e-mail account type)
- [Username/Password](#) – username and password for the e-mail account,
- [Destination address 1 to 3](#) – destination addresses to which notifications will be sent
- [Configure Gateway](#) – a button for entering the work parameters for the external GSM module, which should be used after saving the settings with the SAVE button,
- [Send Test Message](#) – a button to test the settings by sending a test e-mail.

Access Control Tab

Add User

ADD USER

NAME

LOGIN/PASSWORD

User ▾

CARD NUMBER

OUTPUTS ACCESS

Output 1 ☐

Output 2 ☐

Output 3 ☐

Output 4 ☐

SAVE

Fig. 13

Adding a new user entry is reduced to filling the following fields, shown in Figure 13:

- [Name](#) – user's own name, it is used when logging events in the system log, and sent with SNMP Trap notifications. The maximum length of the name is 10 characters.

- **User Login/Password** – (optional) login and password used to authenticate the user at the login stage to the web server. If the user is not using the web server, leave these fields blank. The maximum length of each field is 10 characters.

The username and login/password pair must be unique within the system.

- **Access Level** – permission level, there are two levels available:
 - User – a standard user who only has access to the status page and the system log. It is not possible to view and edit system settings, remote users, and local users.
 - Admin – a system administrator who has the ability to view and edit all system parameters, however, you must first activate the configuration mode (hardware-controlled) – explained in the Hardware section.
- **Card Number** – (optional) unique identification number for the access card or fingerprint (depending on the reader used) assigned to the user. The device allows you to control outputs no. 1 and no. 2 with the use of an additional reader (biometric or RFID UNIQUE/MIFARE tags, e.g. proximity cards, key rings).
- **[name of output no. 1], [name of output no. 2], [name of output no. 3], [name of output no. 4]** – the fields used to assign activation permissions for a given user's individual output, the header of the given output assigned by the administrator is displayed in the header. The setting affects both remote and local switching.

EDIT USER		
USER NAME	Admin ▾	
LOGIN/PASSWORD	<input type="text"/>	<input type="password"/> User ▾
CARD NUMBER	<input type="text"/>	
OUTPUTS ACCESS	Output 1 <input type="checkbox"/>	
	Output 2 <input type="checkbox"/>	
	Output 3 <input type="checkbox"/>	
	Output 4 <input type="checkbox"/>	
<input type="button" value="SAVE"/>		

Fig. 14

If you need to edit an existing user entry, use the form shown in Figure 14:

- **User Name** – a list containing the user names currently assigned to the system, select the name to be edited.
- **User Login/Password** – a new login and password. If the field remains blank, the system will retain the previous data.
- **Access Level** – similarly to section Add User,
- **Card Number** – a new card number/fingerprint. If the field remains blank, the system will retain the previous data.
- **[name of output no. 1], [name of output no. 2], [name of output no. 3], [name of output no. 4]** – similarly to section Add User.

DELETE USER	
USER NAME	Admin ▼
<input type="button" value="DELETE"/>	

Fig. 15

If you wish to delete a user entry, select the desired name from the [User Name](#) field, and execute the Delete command.

NOTE: If the account of the currently logged-in user is deleted, it will be automatically logged out.

READ RFID CARD ID	
LAST USED CARD	<input type="text" value="0000579680"/> <input type="button" value="READ"/>

Fig. 16

The field at the bottom of the page, shown in Figure 16, allows you to display the last used ID (card) to make it easier to assign to the system.

In the case of cards not assigned to the system, their correct reading is signalled by a single short beep.

When the card or the fingerprint is successfully assigned to the system, the authorisation for the card is reduced to approx. 1 to 2 seconds until a short double beep is heard, and in the case of the fingerprint, the finger should be placed on the reader until a single beep is heard.

Every time a card/fingerprint is logged into the system log, a SNMP Trap notification is sent to each managed output (see SNMP Settings).

Log

07/02/07	10:31:47	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	10:31:50	NOTIFICATION : Output 1 OFF	REMOTE USER : admin
07/02/07	10:48:23	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	10:48:26	NOTIFICATION : Output 1 OFF	REMOTE USER : admin
07/02/07	10:52:20	SETTINGS CHANGE : Mail	REMOTE USER : admin
07/02/07	10:53:10	SETTINGS CHANGE : SMS	REMOTE USER : admin
07/02/07	10:53:24	SETTINGS CHANGE : SMS	REMOTE USER : admin
07/02/07	10:53:44	SETTINGS CHANGE : SNMP	REMOTE USER : admin
07/02/07	10:53:56	SETTINGS CHANGE : Inputs	REMOTE USER : admin
07/02/07	10:54:10	ALARM : Input 1	
07/02/07	10:55:53	ALARM : Input 1	
07/02/07	10:56:53	SETTINGS CHANGE : SMS	REMOTE USER : admin
07/02/07	10:57:36	ALARM : Input 1	
07/02/07	10:59:51	SETTINGS CHANGE : Mail	REMOTE USER : admin
07/02/07	11:00:24	ALARM : Input 1	
07/02/07	11:02:59	SETTINGS CHANGE : Inputs	REMOTE USER : admin
07/02/07	11:03:25	SETTINGS CHANGE : Access Cards	REMOTE USER : admin
07/02/07	11:03:35	SETTINGS CHANGE : Access Cards	REMOTE USER : admin
07/02/07	12:46:28	NOTIFICATION : Output 2 ON	REMOTE USER : admin
07/02/07	12:46:32	NOTIFICATION : Output 4 ON	REMOTE USER : admin
07/02/07	12:46:37	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:16:20	NOTIFICATION : Output 4 ON	REMOTE USER : admin
07/02/07	13:22:44	SETTINGS CHANGE : System	REMOTE USER : admin
07/02/07	13:28:53	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:28:58	NOTIFICATION : Output 3 ON	REMOTE USER : admin
07/02/07	13:29:03	NOTIFICATION : Output 4 ON	REMOTE USER : admin
07/02/07	13:29:09	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:39:02	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:39:19	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:39:23	NOTIFICATION : Output 1 OFF	REMOTE USER : admin
07/02/07	13:39:26	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:39:30	NOTIFICATION : Output 1 OFF	REMOTE USER : admin
07/02/07	13:39:33	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:39:37	NOTIFICATION : Output 1 OFF	REMOTE USER : admin
07/02/07	13:39:41	NOTIFICATION : Output 1 ON	REMOTE USER : admin
07/02/07	13:40:15	SETTINGS CHANGE : System	REMOTE USER : admin
07/02/07	13:41:54	SETTINGS CHANGE : System	REMOTE USER : admin
07/02/07	13:42:55	NOTIFICATION : Output 1 ON	REMOTE USER : admin
08/02/08	14:18:32	NOTIFICATION : Output 1 ON	REMOTE USER : admin
08/02/08	15:23:00	NOTIFICATION : Output 1 ON	REMOTE USER : admin

Fig. 17

The card shown in Figure 15 shows the log of system events with the date and time of occurrence for each entry.

Available group notification include:

- **ALARM** – indicates the alarm status, the description contains the user's label for the signal which triggered the alarm,
- **SETTINGS CHANGE** – change system settings with information on exactly what settings were changed and which user did the change (login),
- **NOTIFICATION** – system alerts, such as a status change for outputs, an entry containing a user-supplied label for the output, and the type and name of the user who changed the output state.

The entries in the log are stored in the non-volatile memory of the device. Restoring the default settings deletes all entries in the log. The events are saved non-stop, i.e. the oldest entry is replaced by the newest one.

Technical data

Physical parameters

Dimensions	196x71x31mm
Temperature range	0°C to 40°C
Humidity range	10% to 90%, non-condensing
Certifications	CE

Power

Socket	Power 12V
Voltage	12V DC
Current	Min. 150 mA
Pin	DC Jack 2.5x5.5 mm

Network parameters

Interface	RJ45 (100BASE-Tx) – 10/100 Mbps
Supported protocols	ARP, DNS, HTTP, SNMP, SMTP, SMTP
SNMP	SNMP Get, SNMP Trap

Inputs

Type	Binary (NO/NC) with additional parameterisation (tampering detection)
Socket	Inputs 1 to 4
Pin	TBW-3.5-3 pin
Amount	4
Power	Additional 12-V DC supply for the sensors, galvanically connected to the positive voltage of the device
Voltage limit	on the "+" contact: 5V Do not connect any external voltage source to the 12-V contact.

Outputs

Type	Voltage (12 V DC constant on the "+" contact, attached ground)
Socket	Outputs 1 to 4
Pin	TBW-3.5-2 pin
Amount	4
Power	Galvanically connected to the positive voltage of the device
Load limit	For a single socket: 500 mA Sum for sockets 1 to 4: 700 mA Do not connect any external voltage source to the 12-V contact.

Sensors

Type	Microprocessor temperature sensors, temperature/humidity sensors, RFID readers
Socket	Sensors: Temp/RFID, Combo
Pin	RJ12
Amount	2
Power	5 V DC
Comments	Connect only the temperature/humidity sensor to the Combo socket. Connect only the temperature sensor, or the reader to the Temp/RFID socket, and the sensor and the reader must be connected by means of a splitter. Use only apra-optinet sensors and readers.

Indicators

LEDs	Blue and red illuminating the logo on top of the device and the front panel
Buzzer	Built-in sound signal

Warranty/post-warranty service and repairs

Installer/Service Provider	Action performed	Date

.....
Sale date

.....
Signature and seal of the seller

NOTE:
Instruction manual is also a service book. Please keep it in a safe place.