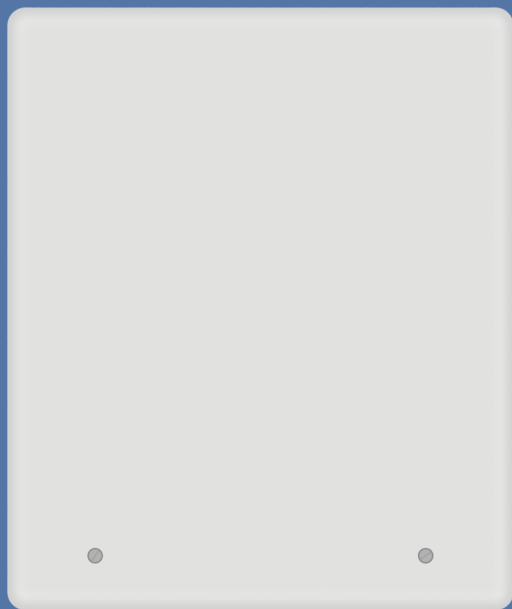


ipTNA4i

Installationmanual



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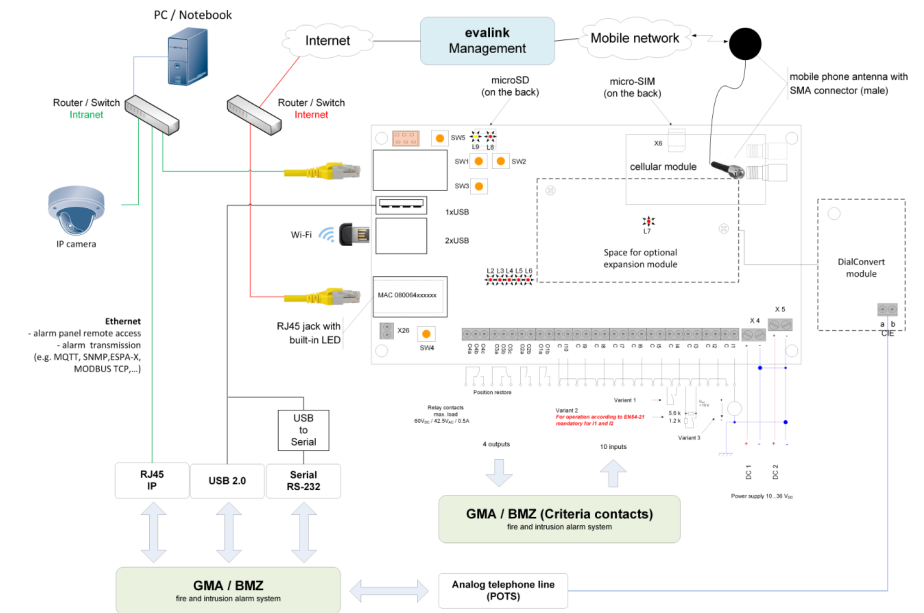
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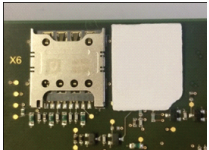
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The ipTNA4i reliably transmits alarm conditions from security systems or error messages from technical installations via TCP/IP to alarm receiving centres. The encrypted data connections via the redundant communication paths (Ethernet and Mobile) are regularly monitored by “Alive-Checks”.

1 Connecting the ipTNA4i

The following explains how to connect the ipTNA4i to a danger alerting system:



LAN	Connect the network connection (X21, with serial, MAC - number label) using a shielded patch cable (Cat. 5 STP) to the network (modem, router or switch).
Antenna	Mount the antenna in a suitable location with sufficient reception and connect the antenna cable to the ipTNA4i SMA connector. The strength of the cellular signal can be measured with evalink live. --> <i>Commissioning Step 2</i>
SIM-Card	Slide the micro-SIM card into the X6 holder on the rear panel (the holder is located under the mPCIe modem). The SIM card may not contain any active PIN code. If necessary, deactivate the PIN using a mobile phone. 
DAS (parallel)	Connect the desired I/O terminals with the DAS with cables. Input Option 1: Unmonitored loop for use with potential-free contact. Loops open > 50 k Ω / Loops closed < 300 Ω . Input Option 2: Monitored loop for use with potential-free contact. Only connect the contact with the indicated resistances. The resistance of the loop itself must be < 300 Ω . The loop monitoring (to be activated in evalink) can detect sabotage (short circuit/break the loop). Input Option 3: Apply external voltage. $U_{ext} \leq 1.5$ V: Loop open, $U_{ext} \geq 2.5$ V: Loop closed. Note the polarity and maximum voltage of 15V. NOTE: The internal loop power (terminals C) is pulsed and connected to the potential of the power supply. Wiring of the inputs with capacitors is not allowed in options 1 and 2. The cable length must not exceed 100m, screening is recommended.
DAS (Dialler connection)	Connect the terminal of the optional DialConvert Module with the analogue port of the danger alerting system.
Supply	The ipTNA4i has two power inputs, which are monitored independently. Connect the terminals X4 and X5 with a DC voltage source (10-36V DC). The negative terminals are interconnected as well as connected to the ground of ipTNA4i.

DAS (parallel) output port

Function Assignment	Description	Wiring
Control output	Normal use as an output contact with actuation by evalink. All actuators have been implemented with bistable relays. This allows the preservation of the state even if a failure of both power supplies.	Terminals a - b: Contact closes when "true" or "1" is selected. Contact opens when "false" or "0" is selected.
Fault contact 1 <i>Non-critical Fault</i>	The contact is actuated when the ipTNA4i detects a fault, but is still operational. A combined fault has the following causes: <ul style="list-style-type: none"> • One of the two power supplies has failed • A connection path to evalink Ethernet or mobile is faulty ¹⁾ • Mobile reception strength is out of tolerance (if configured in evalink) 	Terminals a - b: Contact opens in the event of failure
Fault contact 2 <i>Critical Fault</i> Mandatory on output 3	The contact is actuated when the ipTNA4i is inoperable. A combined fault has the following causes: <ul style="list-style-type: none"> • Both supply inputs are out of tolerance • No connection to evalink ¹⁾ 	Terminals a - c: Contact opens in the event of failure
Local alert	The contact is activated if a user message cannot be deduced from any of the configured targets. ¹⁾	Terminals a - b: Contact opens in the event of failure

¹⁾ With configurable delay time. The contact only switches to fault, if the cause still persists after the delay time has expired.

2 Commissioning of ipTNA4i

For easy installation of your device evalink live is available. evalink live independent of the terminal and can be used on any smartphone, tablet or PC via the browser.

After successful registration under www.evalinklive.com and login on evalink live please proceed as follows:

Step 1: Capture device via evalink live

Set-up the connection via the online platform www.evalinklive.com.

Step 2: Commissioning

Select the connection and click on Configure.

Manage sites and devices

N#	Status	Customer & Address	Device ID	ARC	Actions
691125643	Approved	Demo Customer, Inc.	10001876		

Device ID: N*10001876
July 11, 2019

Last update: 11 July 2019
Installation date: 18 July 2019 [Edit](#)
Installer: demo.installer@sitasys.com
Customer address: Industriestrasse 6, 4513, Langendorf, Switzerland
Customer: DCLA0841, Demo Customer, Demo Customer AG
Property owner: Hans Muster, Muster AG

● Landline (Ethernet/DSL) ● Mobile (GPRS/LTE) ● Wireless (Wi-Fi) ● Device ● ARC

[Configure](#) [Edit](#) [Download PDF](#) [...](#)

In the configuration you can see how the device is configured and general information about the connection can be retrieved.

MAC address

To go to Device configuration, you need to set a valid MAC address (example: 080064ABCDEF).

MAC address

XXXXXXXXXXXX

Save

You will then be prompted to enter the ipTNA4i MAC address.

Network configuration
Connect to a new or known Wi-Fi spot. DHCP/IP Settings available. Mobile network, APN, Public IP Address, Connection Monitoring etc.

● Landline (Ethernet/DSL) ● Mobile (GPRS/LTE)

Device monitoring
Inputs, Outputs, Technical components

Transmission test
Simulate all failures

FW version
FW version, Official FW version, Update setting

Event history
Full event history in different time interval

Configuration protocol
Send Configuration Protocol to email

Device replacement
Assign MAC address / Device Hardware ID

Device information
MAC address, quote ID, main node access, fallback node access

Access level password
Configure access level password

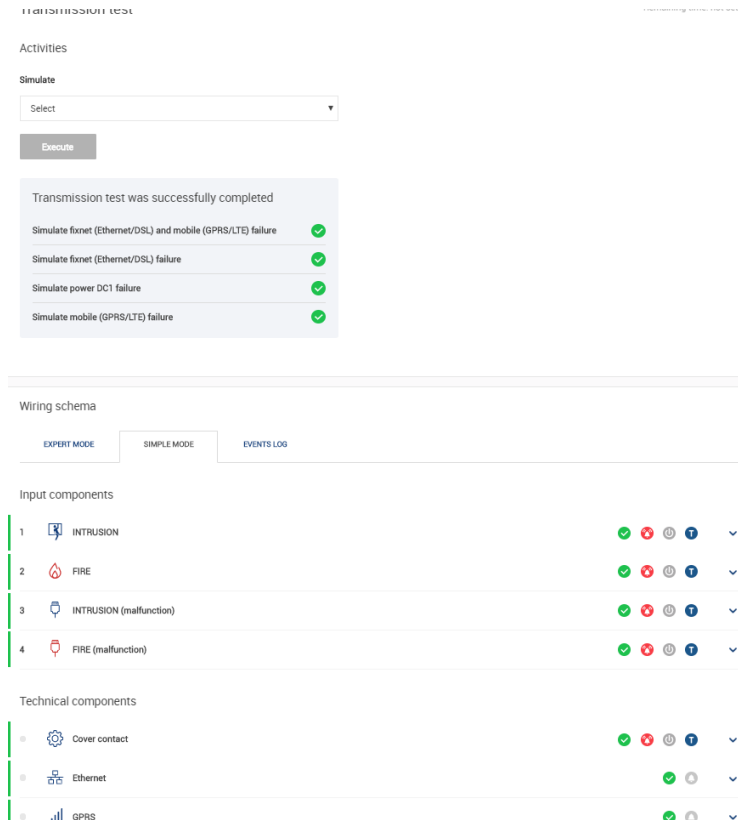
Under Check Connection you see the channels through which the device is connected.

Next, you can check the signal strength by clicking on the mobile (GPRS/LTE) button.

By clicking on the Configuration Log button you can receive the log via email.

Step 3: Transmission test

After the successful commissioning of the ipTNA4i, you need to check the transmission of the individual criteria (I/O) of the danger alerting system to the alarm receiving centre. The procedure is determined by the responsible operator. Before the test, the access level passwords must be entered for the ipTNA4i.



Once a connection is available, you can switch to the transmission test.

To start the test, press the SW1 button on the ipTNA4i for 2s.

Now you can test the inputs and outputs, as well as simulate the technical faults.

After the test, you can receive a commissioning certificate via email.

3 Fault diagnostics on the device

If commissioning via evalink live was unsuccessful

3.1 Overview of the device state

Once you have entered your device, turn on the power supply. After about 60 seconds, the operating state is achieved. Trouble-free operation is available when the LEDs adopt the following statuses:

- L2 (operation) flashes slowly
- L3 (Internet connection) remains lit
- L4 (Mobile connection) remains lit
- L5 is not lit
- L6 is not lit

3.2 Select detail status

If the fixed network (Ethernet/DSL) or wireless connections could not be established, you can access additional information about the detail status.

By repeatedly pressing the S3 button, the L2 - L5 are switched to Detail Status (the specified number of LED applies to fault-free operation).

- Press SW3 1x: GSM signal level - 2 or more LEDs light
- Press SW3 2x: Intranet/Internet connection - L3 - L5
- Press SW3 3x: GSM connection - L3 - L5
- Press SW3 4x: return to the Status Overview

You can also get to back to Status Overview by pressing the SW4 key.

Restart: If you hold the SW3 button down for longer than 6 seconds, the ipTNA4i reboots.

3.3 Fault diagnosis intranet/internet connection

If L3 does not stop flashing:

- Check the LED in the LAN socket. If the LED in the LAN socket is not lit, the connection to the network (router/switch) is interrupted.
-> Contact the local IT administrator.
- If the LED in the LAN socket lights, press the SW3 button 2x (press 2s, wait 2s, press 2s), and check the detail status of the Intranet/Internet connection via L2 - L5. If none of these LEDs light, an IP address could not be assigned by the DHCP
-> Contact the local IT administrator.
- If only L5 is lit, there is a fault with the internet connection (e.g. firewall impermeable).
-> Contact the local IT administrator.
- If only L5, L4 and perhaps L3 are lit, the login to evalink has not been successful
-> Contact the operator of the evalink platform

3.4 Fault diagnosis mobile connection

If L4 continues to flash:

- First check that the SIM card is in the correct position.
- Check the signal level and modem status using the InstallerApp. If the reception is weak, re-position the antenna.

3.5 Advanced fault diagnosis

3.5.1 ipTNA4i as WiFi Access Point

With the optional TP-Link TL-WN821N dongle, the ipTNA4i can be used as a WiFi Access Point. This is very helpful if it is not otherwise possible to access the Internet from a smartphone, tablet or PC and thus the evalink platform in order to carry out the commissioning.

The prerequisite for this is of course that at least one connection (Ethernet or mobile) of the ipTNA4i is working.

If the TL-WN821N is connected to one of the USB ports, a new access point with an SSI D corresponding to the MAC address of the ipTNA4i will appear.

To connect to it, the MAC must also be entered as password (e.g. 0800640312DF).

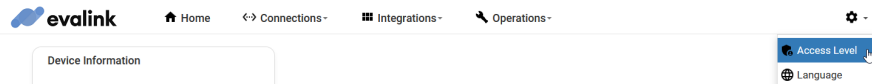
Please note that it is case-sensitive.

3.5.2 Quick test

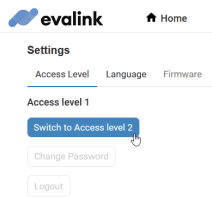
If the ipTNA4i does not connect to the evalink platform, various analyses can be performed using the quick test.

Proceed as follows to get to the quick test:

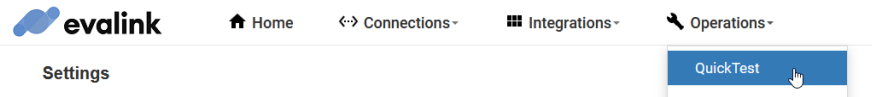
- Start the web server of the ipTNA4i by pressing SW1 for more than 5s
 - If the web server is activated, L2 shows the following pattern:
LED flashes 2 times briefly, followed by a longer pause.
- Connect to the web server via browser
 - If the ipTNA4i Access Point has been activated (see above) and the client computer is connected to the browser with this Access Point, the following address can be entered:
`http://192.168.2.1:8080`
 - If the client computer is located in the same Ethernet subnet as the ipTNA4i, the IP address of the TNA must first be determined, then it can be connected to the web server:
`http://a.b.c.d:8080`
- If the start page of the TNA is visible, at least the password of access level 2 must be entered so that the quick tests can be carried out.



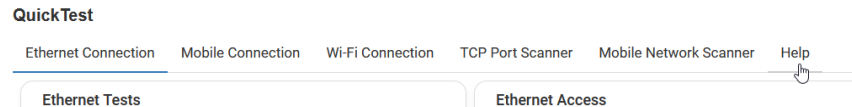
The default password for level 2 is: 222222



The Quicktest can now be selected under Operations.



On the "Help" page the possibilities of the quick test are described.



3.5.3 Local configurations

If it should be necessary to configure a fixed IP address and/or special Mobile Access information to enable a connection to evalink at all, this can also be done via the local web server of the ipTNA4i.

For the activation of the "Configuration" menu you need the password of level 3

Default password is: 333333

4 Installation

4.1 Requirements on location

When installing the ipTNA4i in the danger alerting system (DAS), the danger alerting system must provide a buffered power supply in the range 10-36VDC. All circuits connected to the ipTNA4i shall be so designed and protected that under normal conditions and when a single fault occurs, the voltages do not exceed a safe level (SELV circuit according to EN 60950).

The site must be protected against humidity and moisture.

A network (10/100/1000 Mbit/s Ethernet LAN) with a connection to the internet must be available at the installation location. The configured port numbers for connecting to the platform must be opened in the firewall.

The ipTNA4i can obtain its IP address from the network DHCP server. If this is not possible or desired, a static IP address can also be defined.

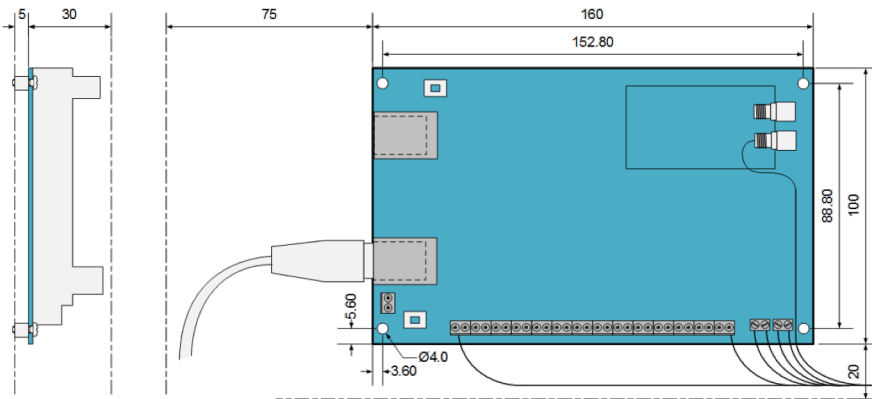
There must be a sufficient signal level at the antenna location.

4.2 Requirements of the evalink platform

The identification of the ipTNA4i is based on the MAC address. You will find this on the sticker on the RJ45 socket. For identification, you need them, both when capturing the device with evalink and for queries to the operator. For replacement of the device, the old and the new MAC address are required.

4.3 Technical specifications

Operating temperature range	-10 ... +55 °C
Dimensions	100 x 160 x 29 mm
Operating voltage	DC 10...36 V, typ. 120 mA @ 12V
Tightening torque of screw terminals	0.15 Nm max.



Notes and Warnings

Intended use: The intended use of the ipTNA4i is only applies when the instructions of the Installation Guide for the installation, electrical connection and commissioning are observed. Any deviation from the installation instructions shall be deemed to be improper. Sitasys AG assumes no liability for any damage resulting therefrom.



The symbol on the product indicates that this product may not be treated as household waste but should be returned to a collecting point for the recycling of electrical and electronic equipment.

The symbol on the product indicates that this product contains electrostatically sensitive components. Only touch the product, when you are protected against electrostatic discharges.

VdS Recognition

VdS 2344:2014-07

VdS 2203:2001-03

VdS 2463:2007-08

VdS 2110:2015-10

VdS 2471:2010-05

EN 54-21:2006

EN 50136-2:2013

EN 50131-10:2014

This installation guide describes the installation and commissioning of the ipTNA4i with default settings. In most cases these are appropriate.

Changes in the interest of technical progress are reserved.

Contact

Industriestrasse 6
CH-4513 Langendorf

+41 31 511 01 01
info@sitasys.com
www.evalink.io/en/devices

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