# **VB IP**

# **IP Communicator**



**Installer Manual** 

13 May 2015

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### 1. INTRODUCTION

VBIP communicator is perfect solution for monitoring transmission where wired Internet is available. By means of the device **immediate alarm transmission** is guaranteed **without any additional operation cost**. According to device type the VBIP can be connected to the serial port / telephone line connector of the alarm control panel, it provides **reliable** transmission to monitoring station.

To use the highest range of provided functions **please read** carefully the *Installer Manual*.

For the confident programming and secure usage please keep all warnings in *Installer Manual*, with highly focusing to security directions.

## 2. SYSTEM STRUCTURE

VBIP communicator receives the Contact ID signals from the PSTN line / serial port of the alarm control panel, or the contacts on its own inputs. These signals are transmitted to the monitoring station through Ethernet network.



Note: Basic Ethernet network knowledge is always necessary to install VBIP module.

VBIP module is distributed in the following versions:

- **VBIP** For telephone communicator, it has 2 contact inputs.
- VBIP-S For serial communicator, it has no input (for SecoLink, Alpha alarm control panel; VBIP-IO8 input extension).
- **VBIP-IO8** 8 / 16 input extension for VBIP / VBIP-S modules (serial event receiving from alarm control panel is not allowed after the extension).

The structure of each modules:



*Note:* In case of communication trouble the VBIP module switches the alarm control panel connector to external telephone line connector. So with appropriate settings (dialing the phone number of central monitoring station) the alarm control panel will be able to call directly the monitoring station through external telephone line.





#### **VBIP-IO8 modules connection**

*Note:* If you want to to use 16 inputs (instead of 8 inputs), the second VBIP-IO8 panel should be connected the way above, with placed MODE jumper on that.

*Note:* **+12 Vdc power supply should be connected to each module separately**. The connection of the devices should be made only with 3 wires cable provided in device package (RX, TX, GND).

### **3. SYSTEM PROGRAMMING WITH PC SOFTWARE**

VBIP module programming is allowed through serial port by default, but after the appropriate IP settings it can be also configured through Ethernet network. Please use *EniTerm* software for programming. The programming steps are the following:

IMPORTANT: In case of old hardware version of VBIP (without external telephone line connector) always disconnect +12 V power supply of module before serial programming !!! Simultaneous usage of +12 V and USB power supply may damage the programming PC and module.

- 1. By means of VUP cable and mini USB cable, connect the VBIP module to the programming PC (for serial programming).
- 2. Please start *EniTerm* software.
- 3. Choose the ET (settings) file for programming:
  - VBIP.ET VBIP module programming

4. In Communication / Port Settings menu set the communication port / IP address for programming (default password for IP programming: 1234).

|  | <u> </u>   |  |
|--|--|--|
|  | СОМ2 🔽   |  |
| ET File                                | Terminal   |  |
| 9600 🔹                                 | 9600 💌   |  |
| 8 •                                    | • 8 •  |  |
| None                                   | None 💌   |  |
| 1 •                                    | • 1 •  |  |
| C IP Address : Port 192.168.1.240 : 23 |  |  |
| Show Passwe                            | ord  |  |
|  | ET File<br>9600<br>8<br>None<br>1<br>192.168.1.240<br>Last Used IP<br>****<br>Show Passw |  |

5. By clicking to Communication / Read Data menu you can read settings from device.

| Device version: CA02<br>Read data |        |           |
|-----------------------------------|--------|-----------|
|                                   |        | 45.10%    |
| Close                             | COM2:9 | 600,8,N,1 |

The highlighted firmware version means the following (hexadecimal format):

C – 12 (2012)

A-10 (October)

02 - 2 (Second day)

6. Please execute the required settings in *EniTerm* software.

Note: The software functions are shown in EniTerm help menu.

| L. EniTerm v2.00 |               |                  |             |                               | Statement of the local division of the local |
|------------------|---------------|------------------|-------------|-------------------------------|--|
| File View Edit   | Communication | Help             |             |                               |  |
| <b>N R</b>       | N 8           |                  | = ?         | File Name<br>Last Version     | D:\Richard\Termék\EniTerm\EniTerm \<br>Firmware: C306  |
| Open Save        | Settings Read | Write Advanced N | Aagyar Help | Device Version<br>Device Info |  |
| Description      | 1             |                  |             | Value                         | Default  |
| Network Settin   | gs            |                  |             |                               |  |
| Fix or DHCP IP A | ddress        |                  |             | DHCP                          | DHCP   |
| Fix IP Address   |               |                  |             | 192.168.1.128                 | 192.168.1.128  |

7. Click to *Communication / Write Data* menu to send the modified settings to device. *Note:* During data reading (and sending) VBIP firmware version can be checked.

## 4. TROUBLESHOOTING

**TROUBLE:** Any abnormal operation in functions during the usage of the device. **SOLUTION:** Firmware upgrade with the newest firmware file usually solve these kind of problems (see *Firmware update* part in manual).

**TROUBLE:** There is no connection between programming PC and VBIP module (during serial programming).

**SOLUTION:** Check the cable plugging in PC side. In programming PC *Control Panel / Hardware / Device Manager* application you can check which COM port appears / disappears in device list during plug / unplug programming cable (with connected VBIP). Please check whether COM port setting is correct in programming software.

**TROUBLE:** VBIP settings seem fine, but communication is not received in CMS side. **SOLUTION:** Connect a laptop in place of VBIP Ethernet cable, and set the same network settings as VBIP has. Then start ipt.exe program to check is it possible to connect to Enigma from the installation place with the given settings. If there is no contact check the programmed network settings, and the local network parameters (rooter, server, switch, etc).

TROUBLE: No communication is received from alarm control panel to VBIP.

**SOLUTION:** Check, that the alarm control panel is set to DTMF (Tone) dial mode, communication should be enabled, there should be added phone number a client account, additionally Contact ID (Full) format should be selected.

**TROUBLE:** Alarm control panel detects telephone line error, communication problems. **SOLUTION:** In some control panels (in control panel settings) there might be required to disable 'telephone line monitoring' and 'wait for dial tone' options. Additionally in some cases 'force dial' option should be enabled in alarm control panel.

It may help if you connect 1K resistor parallel to control panel TIP / RING connector.

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There might be the following error messages generated in VBIP communicator: 1354 012 99 = LAN cable is unplugged.

- 1354 999 99 = Communication problem between alarm control panel and VBIP.
- 1354 001 99 = Communication problem on Ethernet #1 channel.
- 1354 002 99 = Communication problem on Ethernet #2 channel.
- 1354 000 99 = Communication problem on all channels in 1-2-3-4-5-6 mode.
- 1354 100 99 = Communication problem on Ethernet #1 channel in 1-3-5; 2-4-6 mode.
- 1354 200 99 = Communication problem on Ethernet #2 channel in 1-3-5; 2-4-6 mode.

## 5. ENIGMA II TRANSMISSION TEST

Testing is useful to test data sending from an external installation place. The testing software in the given local network (where the VBIP will be connected) can help a lot to check monitoring transmission and find the reason of possible problems. For test please use ipt.exe software in the following way:

| Local IP (Name)<br><b>You</b>                          | 192.168.1.179<br>1 <b>P: 81.182.46</b> . | I (Richard-PC)<br><b>243</b> | )           |
|--|--|------------------------------|-------------|
| Receiver IP address     123.0.189.17       Domain      |  |                              |             |
| Receive Port<br>Shell (Telnet) Port<br>Web-Server Port | 9999<br>23<br>80                         | TCP<br>Pass<br>Pass<br>Pass  | UDP<br>Pass |
| Exit   | Options                                  | Test                         |             |

- 1. Enter the *IP address* or *Domain name* of the monitoring station.
- 2. Set the ports for communication with monitoring station (*Receive Port* = Monitoring transmission port; *Shell (Telnet) Port* = Remote programming port; *Web Server Port* = Event list access through web browser port).
- 3. After click to Test button it can be seen that test is successful (PASS) or not (FAIL).
- 4. If you want you can change the program settings in *Options* part:
  - Enable TCP Test Report = TCP connection test with test message;
  - Enable UDP Test Report = UDP connection with test message;
  - Invisible TCP/UDP Test = Test message can't be seen on receiver;
  - Enable AES Crypted Test Report / AES Key = Test of AES encryption function.

## 6. FIRMWARE UPGRADE

It is recommended to upgrade regularly device firmware to use new functions and eliminate possible bugs.

Firmware upgrade can be done by the following steps:

- 1. Get the latest firmware files from your distributor (vbip.bot).
- 2. Save settings from the VBIP with *EniTerm* software (please check 3. *System programming with PC software* chapter).
- 3. Start VB Uploader program for firmware upgrade.

| /BUploader v1.26 (COM1:57600,8,n,1)  | TO DE LA DELLA DE   |                      |
|--|---|----------------------|
| Please read and save device parameters be  | efore start programming!  | 0                    |
| 1. Step<br>Select programming type and load file   | 2. Step<br>Connect Serial or USB Cable                            | 0                    |
| Radio Communicators C VBRC-4 Radio Communicator (Telco) VBRC-5 Radio Communicator (Serial) IP Communicators VBIP IP Communicator C VBIP PRO IP and PSTN Communicator | 3. Step<br>Select PC com port 576<br>4. Step<br>Start programming | 00<br>•00<br>•       |
| File Name<br>Version   | Fil   | e Version<br>Status  |
| Exit Help Magyar   | Ne <u>w</u> << <u>B</u> ack                                       | <u>lext &gt;&gt;</u> |

- 4. Choose item (VBIP) for upgrade (1. STEP), then NEXT.
- 5. Choose the proper firmware file for upgrade (2. STEP), then NEXT.
- 6. Choose the COM port where VBIP is connected (3. STEP), then NEXT.
- 7. Upgrade process can be started with START button.

8. Do not forget to send back the saved VBIP settings at the end of the upgrade (please check 3. System programming with PC software chapter).

9. To use new functions it might be required to get the latest *EniTerm* software with the newest ET (setup) files – please download and use newest version.

## 7. CONTACT TRANSMISSION THROUGH IP NETWORK

By means of two VBIP units there is a possibility to transmit contacts through IP network. The inputs of one of the VBIP units (transmitter) is exactly followed by the outputs of the other VBIP unit (receiver). The following settings should be configured additionally to general network parameters.

On transmitter side:

| Ch 1 - Ethernet (IP) #1      |                |
|------------------------------|----------------|
| Receiver IP Address (Domain) |                |
| Receiver IP Port             | 6200           |
| Account Code                 | 0001           |
| UDP or TCP Reporting         | UDP            |
| IP Report Protocol Format    | Remote Control |

Note: In Receiver IP Address field there is the IP address of the controlled VBIP unit.

*Note:* With modification of *Input 1 / 2 – Loop Type* parameter (NO / NC) you can configure the output activation status of the other VBIP unit (receiver).

Note: When you open VBIP.ET file, you can select Remote Control option to set these parameters automatically.

On receiver side:

| IO Parameters (onboard) |        |
|-------------------------|--------|
| I/O 1 Operation Mode    | Output |
| I/O 2 Operation Mode    | Output |
| No 2 operation mode     | Output |

*Note:* 6200 port (output control is made through this port) should be allowed for for Port Forwarding in router settings.

*Input 1* of VBIP on transmitter side controls the *Output 1* of VBIP on receiver side, *Input 2* of VBIP on transmitter side controls the *Output 2* of VBIP on receiver side.

*Note:* It is not recommended to use reporting option in VBIP units which are used for contact transmission, because in this case reporting might be very slow.

#### 8. VBIP LED SIGNALS

LED 1: Continuous light = Power supply OK.

Quick blinking = Power supply problem.LED 2:No light = Everything is OK.

Blinking = Reporting failed to monitoring station through all possible reporting channels (in 1-3-5; 2-4-6 operation modes the communication problem of each operation strings is indicated by LED blinking).

*Note:* Quick alternate blinking of LED 1 and LED 2 means no transmission channel is programmed.

- LED 3: No light = Everything is OK, telephone line changing relay in normal status. Blinking = Telephone line changing relay is in active status.
- LED 4: Continuous light = Ethernet connection is OK.

No light = There is no LAN cable connected to communicator.

Blinking = There is communication problem to monitoring station through Ethernet channel.

#### 9. TECHNICAL DATA

| Product                                | VBIP                                  | VBIP-S |
|--|---------------------------------------|--------|
| Power supply                           | 10,5 – 15 Vdc                         |        |
| Maximum current consumption            | 160 mA                                |        |
| Event receiving<br>(through tel. line) | Yes                                   | _      |
| Event receiving<br>(through serial)    | Yes                                   |        |
| Input / Output                         | 2                                     | _      |
| Output type /<br>Load capacity         | Open collector / max. 50 mA           |        |
| Expansion                              | up to 16 inputs with VBIP-IO8 modules |        |
| Ethernet connector                     | 10 Base-T                             |        |
| Event buffer                           | up to 64 events                       |        |
| Operating<br>temperature               | 0 °C / 50 °C                          |        |
| Sizes (W / L / H)                      | 48 x 42 x 15 mm                       |        |
| Weight                                 | 40 g                                  |        |