

## User program for Hakil Isolguard products

### Hakil Isolguard 2.0 Config



## Operating instructions

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### Used symbols



#### Alert, warning

This symbol informs about particularly important instructions for the installation and operation of equipment or hazardous situations that may arise during installation and operation.



#### Information

This symbol draws attention to especially important characteristics of the device.



#### Note

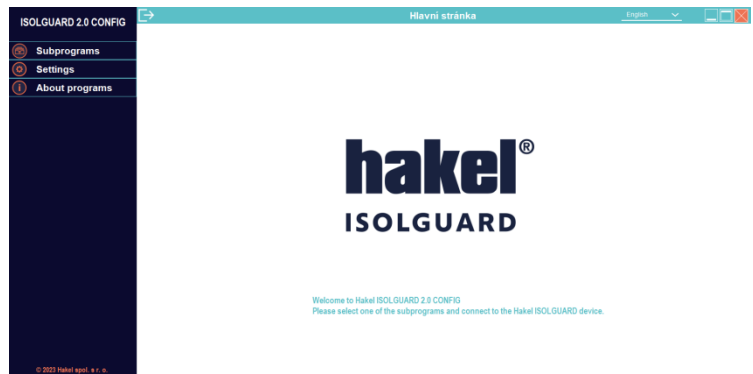
This symbol indicates useful additional information.

### 1 Basic description

The Hakil Isolguard 2.0 program was created to unify and simplify work with all Hakil Isolguard devices. The program has integrated all the subprograms for communication and easier operation and setting of individual devices.

Each subprogram has the task of communicating with one Hakil Isolguard device and thus replaces the previously created program. As a result, the user only needs one user program for all Hakil Isolguard devices.

The graphical interface of the program is divided into several parts. The individual parts of the program will be described below in the operating instructions of the program.



**Pic. 1 Main program screen**

### 2 Basic parameters of the program



The program is available free of charge upon request by the customer at sales representatives of Hakil spol. s r. o.

The basic requirements for the program are: Windows 7 (SP1), with support for .NET Framework 4.5.

Individual programs are connected to the devices using an interface defined by the manufacturer, see. Table 1 Overview of connection interfaces.

**Table 1 Overview of connection interfaces**

Device	Subprogram	Communication interface	Connection
HIG-IFL Delta	HIG-IFL Delta SetUp	USB	USB/micro USB B
HIG-8IN	HIG-8IN SetUp	USB	USB/micro USB B

The user must have FTDI drivers installed for the virtual COM port. Drivers are available on <https://www.ftdichip.com/Drivers/VCP.htm>.

### 3 Basic parts of the program and their functions

The program interface is divided into several basic parts. On the left side there is a program menu, thanks to which the user can change any subprograms between themselves and communicate across with all Hakil Isolguard devices.

The menu also contains setting and information about the program and subprograms.

In the top bar, the user can end the subprogram by pressing the Exit button and return to the home screen. This button is located on the left side of the bar. Furthermore, the top bar also changes the language, where the user can choose between the Czech and English versions of the program. The selection of options is made on the right side of the program bar.



**Pic. 2 Top bar of the program**

There is a display area for individual subprograms below this bar.

## 4 Program setting

In the Program setting section, you can perform basic setting to make it easier for the user to work with the program.

- Default language

The user sets the default language, which is then set automatically when the version starts. In the first version of the program, you can switch between two mutations. It is possible to switch between the Czech and English versions of the program.

- Default user

The user also has the option to set a default user who will be offered as the default user for protocol generation. The user will not have to write his surname in each generated protocol, but only use the pre-filled user and can subsequently generate a protocol.

- Default protocol language

**Pic. 3 Program setting**

Setup reports can be generated in both Czech and English. This characteristic can be set in the setting, and thus again the user does not have to set each generated protocol separately.

## 5 About the programs

In this part of the program, the user will find information about the main program, its version, as well as contact details for Hakel spol. s r. o. Furthermore, the user learns basic information about individual subprograms, their versions and can read the basic description of the subprogram.

**Pic. 4 About the programs**

## 6 Individual subprograms

The main program contains several subprograms that allow you to communicate with Hakil ISOLGUARD devices. The subprograms are mainly used for easy setup and monitoring of the actual state of the device.

### 6.1 HIG-IFL Delta SetUp

The main parameter that can be set is the names of the measuring circuits of the fault location system. In this way, the program can simplify the customer's orientation in the electrical installation and make it easier to find the location of the failure. The program allows you to set up to eight-character names for each measured circuit. This makes it easier for the user to orient themselves about a fault on a given circuit.

#### 6.1.1 Communication with HIG-IFL Delta

Communication takes place on the USB bus via a virtual COM port. It is therefore necessary to select the COM port to which the HIG-IFL Delta device is connected.

The COM port is set by selecting from the drop-down list options. After selecting the COM port, the subprogram waits for communication to begin. This is done by pressing the *Start communication* button. All information about communication with HIG-IFL Delta appears in the *Communication state* line.

#### 6.1.2 Information about the device

In this part of the program, the user has the opportunity to find out the necessary information about the device HIG-IFL DELTA.

This information is:

- 1) Identification of the connected device
- 2) Device serial number
- 3) Address on IFLS bus (address set by SW.485ADDR switch on the device)
- 4) Terminating resistor state (set by the user manually, cannot be read from the device)

Pic. 5 HIG-IFL Delta SetUp

Pic. 6 HIG-IFL Delta SetUp Device read from Information

This information is recorded in a table to facilitate the interpretation of the individual information.

Table 2 HIG-IFL DELTA Device Information

Parameter name	Interpretation
Identification	The identification string that returns the device
Serial number	Serial number of the connected HIG-IFL DELTA device
IFLS BUS address	Set address on IFLS bus
Terminating resistor state	IFLS bus terminating resistor state
Communication state	Individual communication states



**Note that the state of the terminating resistor is not read from the device.**

**For the terminating resistor information to be correct in exports, the user must set this field.**

**The setup is as follows:**

- If the Rte switch on the HIG-IFL DELTA device is set to the "Rte=ON" position, the ON option is set
- If the Rte switch on the HIG-IFL DELTA device is set to the "Rte=OFF" position, the OFF option is set

### 6.1.3 Information on the individual circuits

The most important part of the sub-programme is the *section Information on the individual circuits*. Thanks to this section, the user has an overview not only of the names, but also of the actual state of the HIG-IFL Delta measuring sensors for individual circuits.

In the first column of the program, the user can change the name of all six measured circuits. The user can name the circuit whatever they want. Individual fields allow you to write only permitted characters in accordance with the Hakil Isolguard rules.

Saving all names is done using the *Save new names* button. The names are then stored in the device's memory and the program then performs a check reading of all data from the device. Then the newly set names are copied into the Saved names column.

Information on the individual circuits			
IN	New names	Saved names	State
1	IN1	IN1	OK
2	IN2	IN2	OK
3	IN3	IN3	OK
4	IN4	IN4	OK
5	IN5	IN5	OK
6	IN6	IN6	OK

**Save new names**

**Pic. 7 HIG-IFL DELTA Information about individual circuits**



Note:

- If a user tries to write a not allowed character, the program does not type that character into the field.
- The program automatically rewrites lowercase to uppercase letters.
- The program also allows you to write the digits 1÷9 and allowed special characters ( ; , + . \_ - ).

### 6.1.4 Additional features

Other functions of the subprogram are *Export \*.PDF* and *Factory Setting*. After pressing the Export \*. PDF pdf, the program generates an output report on the HIG-IFL Delta setting. The report will contain information about the piece and the set names of individual circuits.

After pressing the *Factory Setting* button, the program resets the connected HIG-IFL DELTA device to the factory setting. Typically, all circuit names are reset (deleted). Subsequently, the program performs a re-reading of the data from the device.

Note.

## 6.2 HIG-8IN SetUp

HIG-8IN is a product of Hakil spol. s r. o. This product has 8 logical inputs that allow monitoring the actual state of the device (e.g. automatic transfer switches, UPS, pressing panic push-buttons). And the user gets an overview of these third-party devices in the Isolguard system. Individual inputs are set either in the MDS-D device or using the HIG-8IN SetUp subprogram.

HIG-8IN SetUp connects to the HIG-8IN via the bus USB. Subprogram then allows easy and quickly change the states of all eight inputs.

Pic. 8 Subprogram HIG-8IN SetUp

### 6.2.1 Communication HIG-8IN

Communication takes place on the USB bus via a virtual COM port. It is therefore necessary to select the COM port to which the HIG-8IN device is connected.

The COM port is set by selecting from the drop-down list options. After selecting the COM port, the subprogram waits for communication to begin. This is done by pressing the *Start communication* button. All information about communication with HIG-8IN appears in the *Communication state* line.

Pic. 9 HIG-8IN SetUp Start communication

### 6.2.2 Information about the device

In this part of the program, the user finds out all the information about the connected HIG-8IN piece. This information shall be:

- 1) Device identification
- 2) Number of inputs per device
- 3) Number of outputs per device
- 4) Communication state

Pic. 10 HIG-8IN Information about the device

This information shall be shown in a table which facilitates the interpretation of the individual information.

Table 3 HIG-8IN Device information

Parameter name	Interpretation
Identification	The identification string that returns the device
Number of inputs per device	Number of logical inputs per device
Number of outputs per device	Number of logical outputs
Communication state	Individual communication states



### 6.2.3 Actual HIG-8IN setting

This part of the program displays the actual states of all HIG-8IN inputs. The user thus gets an overview of the actual state of HIG-8IN input setting.

Aktuální nastavení zařízení HIG-8IN							
IN	State	State of IN	Error when	End of error	Signaling	Test mode	Deblock
1	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock
2	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock
3	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock
4	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock
5	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock
6	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock
7	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock
8	DISCONNECT	OK	CONNECT	DEBLOCK	RED + SOUND	OFF	Deblock

Pic. 11 HIG-8IN Actual input setting

### 6.2.4 Single input setting

The most important part of this subprogram is undoubtedly the part for setting up one HIG-8IN input. By selecting from the list (double-clicking on a line in the table of actual setting), the user changes the setting of the selected input.

Table 4 HIG-8IN input parameter setting

Parameter name	Interpretation
Select input	Information
The error occurs when	Number of logical inputs per device
End of error	Number of logical outputs
Color of error	Individual communication states
Acoustic signaling	When an error occurs, an acoustic alarm is triggered
Show on MDS-D	Show type on MDS-D
Error text	Text displayed when an error occurs
Text when OK	Text displayed when the state is OK

Settings of one input

Choose input

IN 1

Error when CONNECT

End of error DEBLOCK

Color of error RED

Acoustic sig. ☒

Show in MDS-D ALWAYS

Text when state is OK

Text when state is FA

Save settings of input

Pic. 12 HIG-8IN setting of selected input

### 6.2.5 Additional features

Other functions of the subprogram are *Export \*.PDF*. After pressing the *Export \*.PDF*, the program generates an output protocol about the HIG-8IN setting. The report lists information about the setting of the piece.

Note.