

EVEREST CONNECTIVITY



INSTALLATION AND USE TECHNICAL MANUAL



Multiple instructions: Consult the specific part



Read and understand the instructions before undertaking any work on the unit

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Original Instructions

RETAIN FOR FUTURE REFERENCE



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1. EVEREST CONNECTIVITY



EVEREST 290 CONNECTIVITY



	Hardware Interfaces				Possible communications			Software Interfaces	
	PGD	Customer' smartphone/tablet/pc	Tablet kit KTA ⁽²⁾	PC	Communication of proxi- mity (local network)	Remote WEB with RMS a	3 connection ccessory ⁽³⁾	c-field	HiWeb
KG5				\checkmark				√ (1)	
KGR5	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
KGH5		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
KG10	\checkmark			\checkmark				V (1)	
KGR10		\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
KGH10	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark

(1) PC connected to the switch through Ethernet cable

(2) Included in the KTA kit

(3) Internet access requested through SIM or Wi-Fi

ACCESSORIES

KG5 - Gateway framework kit up to 5 units

KG10 - Gateway framework kit up to 10 units

Frameworks for communication data with each module of a modular system. The provision for mounting the panel is on the back of the front cover of each unit. The prearrangement for the panel installation is placed on the front-cover back of each unit. Compulsory kit for systems of two or more modules.

KGR5 - Gateway board kit up to 5 units complete with Wi-Fi router

KGR10 - Gateway board kit up to 10 units complete with Wi-Fi routeri

Frameworks for communication and interfacing data with each module of a modular system. It allows the monitoring and supervision of the main operating parameters of the single modules, via local Wi-Fi network (or from WEB network by activating a paid service). The interface that can be used can be a customer device (smartphone or tablet) or the tablet interface (optional KTA).

KGH5 - Gateway framework kit up to 5 units provided with Hi-Web and router Wi-Fi

KGH10 - Gateway framework kit up to 10 units provided with Hi-Web and router Wi-Fi

Frameworks for communication and interfacing data with each module of a modular system. It allows the monitoring and supervision of the main operating parameters of the single modulesand the whole system, by accessing the Hi-Web platform from the local Wi-Fi network. (or from the WEB network by activating a paid service). The interface that can be used can be a customer device (smartphone or tablet) or the tablet interface (optional KTA).

KTA - Kit tablet interface: Integrated inside the front cover of the unit and protected by a sheet metal door with key, it allows access to the Hi-Web and then visualization and complete control of the main operating parameters of the modular system (Supplied in kit).



2. INTRODUCTION

The PLC control on each module contains a user interface program that can be used on devices connected to a local Wi-Fi network or via the Web (upon internet connection of the unit).

This programs allows to access all the functions present in the basic graphic display installed onboard the machine (PGD) and it allows to interact with the PLC control of each module that make up the unit in a simple and fast way.

Furthermore, the HIWEB interface is available, a system for data (SCADA) monitoring, acquiring, supervising which allows to send any scheduled reports or anomalies via e-mail in real-time too. It can also automatically send controls to the system according an established calendar.

If combined with an onboard router with SIM, it can also send text messages to preset recipients, in case of a machine alarm.

2.1 KG5/KG10 kit installation

The installation of the KG5/KG10 in one of the external module of the modular system is recommended.

- 1. Unscrew the screws (A) and remove the closing panel
- 2. Fix the panel through 2 M6x20 screws using the threated inserts present on the pillar (B)







- 3. Bring the power supply to the sockets following the wiring diagram provided (A).
- 4. Connect to the ethernet ports of the switches:
 - the network cables coming from all the modules that make up the modular system (B);
 - the network cable of the module on which the KG5/KG10 kit is installed (C);
 - the network cable coming from the router (if the KGR5/KGR10 kit or the KGH5/KGH10 kit is present) (D).



2.2 KGR5/KGR10 and KGH5/KGH10 kit installation

The installation of the KGR5/KGR10 and KGH5/KGH10 kit on the adjacent module with respect to the one in which the KG5/KG10 kit is installed is recommended

- 1. Follow the instructions at the points 1, 2 and 3 of the paragraph 2.1
- 2. Connect the cable from the KG5/KG10 kit to the router (A)





3. Fix the external antenna to the side panel by opening the specific sheet precut (A) and connect 3 cables (LTE MAIN, LTE AUX and WI-FI MAIN) of the antenna (B) to the router (C) as shown in the images.



2.3 KTA kit installation

It is mandatory to install the KTA kit on the same module in which the KGH5/KGH10 kit or the KGR5/KGR10 kit is present

1. Follow the instructions at the point 1 of the paragraph 2.1;

2. Open the box of the KGH5/KGH10 kit or KGR5/KGR10 kit previously installed and insert the power supply of the tablet in the socket present inside;

3. Connect the usb cable to the power supply of the tablet (A) and take it out from the box passing inside the cable gland positioned in front of the socket;

4. Close the box of the KGH5/KGH10 or KGR5/KGR10 kit and, before mounting the KTA kit panel, ensure to enter the power supply cable inside the compartment containing the tablet using the specific passing hole (**B**);

5. Connect the power supply cable to the port of the tablet (C).





3. ACTIVATION AND USE

The methods for activating and using the local Wi-Fi network and activating and using an Internet connection for remote management of the modules are described below.

3.1 Local Wi-Fi

If the modular system is equipped with a router accessory (KGR5/KGR10 or KGH5/KGH10), it is possible to access locally, with a smartphone or tablet device with a Web browser, the local Wi-Fi network that the router automatically creates. In order to establish the connection and access the Web page of the unit controller, proceed as follows:

1. Approach the module in which the KGR5/KGR10 or KGH5/KGH10 accessory is installed, then:

- a. Find the hpbrweb network among the Wi-Fi networks available in your device
 - b. Connect to the hpbrweb network using the password **!hellohvac!**
- 2. After connecting the device to the hpbrweb network, in order to access the module connect with a browser to the link http://192.168.0.200.
- 3. Only with KGH5/KGH10 accessory: Once the device has been connected to the hpbrweb network, to access the system point the browser to the link http://192.168.0.150 to interact with the SCADA.





1. LINK TO WIFI NETWORK LOGIN

2. LINK TO WEB PAGE



IT IS possible to use the two QR codes shown above to access the local Wi-Fi networks and the Web page of the HiWeb interface respectively.

In case of failure of the network connection, perform the following before trying again:

- · Disconnect and re-connect the power supply to the unit
- Disconnect/remove the WI-FI network
- Disable mobile data traffic on your smartphone

At this point, try again by repeating the 3 steps of the procedure for connecting to the Wi-Fi network

3.2 Connections with the KTA kit

If the modular system has the KTA tablet accessory:

1. With the tablet, establish the connection to the hpbrweb network, using the same procedure described at the point 1 of the paragraph "3.1 Local Wi-Fi". This operation only needs to be performed the first time.

- 2. So, use a browser (default Chrome) to reach the link:
 - a. <u>http://192.168.0.200</u> to access the master module.
 - b. <u>http://192.168.0.150</u> to access the HiWeb data supervision and acquisition control module.



From the browser, save the access link on the Home menu of the tablet in order to find it easily.

To have a better visualization of the Web pages, it is recommended to download "Fully Kiosk Browser" from the following address: <u>https://www.fully-kiosk.com/.</u>



3.3 RMS

Using the router present in the KGR5/KGR10 or KGH5/KGH10 accessory, this function allows remote access to the unit and to HiWeb (if present) via Internet connection. Once the router is connected to the Internet in a stable manner in one of the ways described below, contact the manufacturer who will provide for the activation of the remote connection. Once the connection to the Web has been obtained, the manufacturer will communicate the access codes for remote monitoring of the machine and of the HiWeb interface (if present).

1. An active GPRS/LTE (SIM) phone card from which the access PIN has been previously removed must be inserted into the slot of the router. The SIM should have an active data navigation plan superior or equal to 1GB/month. The chosen operator is not influential.



2. Once the SIM has been inserted, wait a few minute and check that the power LEDs (1) of the signal are lit and stable.



In the event that even after a few minutes the line is still not stable, check the correct side of the SIM insertion. If the connection does not occur, try disconnecting and reconnecting power supply to the router, leaving the SIM correctly positioned on board the router throughout the operation.

3.3.2 Internet connection through pre-existing Wi-Fi

The internet connection of the modular system, using a pre-existing Wi-Fi network at the installation site, can be done by customizing the router with a few steps. The use of a computer and a network cable is recommended throughout the procedure.

1. Connect the computer to the KG5/KG10 switch or directly to the KGR5/KGR10 or KGH5/KGH10 router through a network cable.

2. Access the Web interface of it (Fig. 1), pointing at the 192.168.0.1 ip with a Web browser. In order to perform this operation, the computer should belong to the 192.168.0.0/24 subnet or being in DHCP.

3. Once the access page is open, use the default login credentials:

- a. username "user"
 - b. password "Norgay1953"

After logging in, the user can customize these credentials by pressing on the username at the top right of the page.

		MODE USER BASIC USER
✓ USER 'USER' SETTING	S	
Username	user	
Current password		٢
New password		۲
Confirm new password		٢
		FIG



4. Proceed in the Network - Wireless menu and scan the area to find existing network.

~	NETWORK		TELTONIK	CA I Networks	MODE USER FW VERSION BASIC USER RUT2M_R_00.07.04.1 LOGOUT I			
A Status	Mobile LAN WAN	>	∽ WIFI 2.4GHZ					
Anterna in the second sec	Wireless Failover		hpbrweb	Interface status: Running all ON	Mode: Access Point BSSID: 20:97:27:04:61:56 Clients: 0 Encryption: WPA2 PSK (CCM	Pj		
Q Services	Firewall	•	RUT200	Interface status: Stopped all Dis	Mode: Access Point BSSID: - Clients: 0 Encryption: None		9) # 2	
D System						MULTI AP SCAN	ADD B APPLY	

5. Select the desired network from the list. Press the "JOIN NETWORK" button

√ WIRELESS SCAN RESULTS								
Signal	SSID	Channel	Mode	BSSID	Encryption			
29 %	My_WIFi	1	Master	44:D9:E7:E0:B7:22	WPA2 PSK (CCMP)	JOIN NETWORK		
29 %	Another_WiFi	1	Master	44:09:67:60:87:23	WPA2 PSK (CCMP)	JOIN NETWORK		

6. Continue the steps with the connection by entering the password of the chosen existing Wi-Fi network.

7. Insert any name (for example "First Connection", the name is not influential for connection). Make sure that the firewall area is set on wan as shown in the figure. Press "SUBMIT"



8. Click directly on "SAVE & APPLY" without any modifications in the next net-masks.



Now the router and the devices connected to it have access to the internet through a pre-existing Wi-Fi network at the installation site.



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