XWEB5000 PRO

(V.1.0)

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CAUTION: TO PREVENT FLAMES FROM DEVELOPING OR ELECTRIC SHOCK, AVOID ANY CONTACT BETWEEN THIS DEVICE AND RAIN OR WATER	
	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER IT DOES NOT CONTAIN ANY PARTS THAT REQUIRE SERVICING BY THE USER ALWAYS HAVE QUALIFIED STAFF PERFORM THE PROCEDURES.
	THE SYMBOL OF THE LIGHTNING BOLT INSIDE AN EQUILATERAL TRIANGLE IS USED TO ALERT THE USER OF THE POTENTIALLY DANGEROUS NON-INSULATED ELECTRICAL VOLTAGES
	THE SYMBOL OF THE EXCLAMATION MARK INSIDE AN EQUILATERAL TRIANGLE IS USED TO WARN THE USER THAT HE/SHE MUST PAY CLOSE ATTENTION TO THE TOPIC COVERED IN THIS MANUAL

CAUTION 	This device must be installed exclusively by service staff with suitable technical training and experience, who are aware of the dangers that they are exposed to. The operations described herein are set forth exclusively for the service staff. The user is not enabled to open the device.

CAUTION 	Use only modems and usb-dongles officially supported by this monitoring unit. Dixell srl. cannot be held responsible for any type of damage resulting from the use of unsupported devices.

CAUTION 	Dixell srl reserves the right to amend this manual without prior notice. The latest available version can be downloaded from the internet site.

CAUTION 	Immediately after the power failure, no new data is recorded; all recorded data is kept in non-volatile memory. The memory is electronic and no data is kept or conveyed to other media such as paper. When the memory is exhausted, the oldest data is lost to store the most recent data. The product provides memory consumption indications on the user interface. The device does not have its own power supply. The recording interval can be configured from a minimum of 30 seconds to a maximum of 1 day. The duration of the recordings depends on the interval and the number of points configured for each device in configuration. One year of data logging is guaranteed for 2 analog resources with an interval of 15 minutes, per configured device. Selecting other resources can affect storage performance.

CAUTION 	This is a class A product. It can cause radio-interference in residential environments. Should this occur, the user should take suitable countermeasures

CAUTION 	Dixell srl reserves the right to vary the composition of its products without prior notice to the customer, ensuring the identical and unchanged features of the same.

CAUTION 	The customer shall bear full responsibility and risk for product configuration in order to achieve the results pertaining to installation and/or final equipment/system. Upon the customer's request and following a specific agreement, Dixell s.r.l. may be present during the start-up of the final machine/application, as a consultant, however, under no circumstances can the company be held responsible for the correct operation of the final equipment/system.

CAUTION 	Since Dixell products form part of a very high level of technology, a qualification/configuration/programming/commissioning stage is required to use them as best as possible. Otherwise, these products may malfunction and Dixell cannot be held responsible. The product must not be used in any way that differs from that stipulated in the documentation

1. PRODUCT DISPOSAL (WEEE)

With reference to the DIRECTIVE 2012/19 / UE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on Waste Electrical and Electronic Equipment (WEEE), and to the relevant national implementation regulations, we inform you that users of EEE in households:

- there is an obligation not to dispose of WEEE as mixed urban waste and to separate waste collection of WEEE;
- Public or private collection systems required by local laws must be used for disposal. It is also possible, at the end of its life, to return the equipment to the distributor in case of purchase of a new one.
- This equipment may contain hazardous substances; improper use or incorrect disposal could have negative effects on human health and the environment.
- The symbol  shown on the product or on the packaging indicates that the product must be treated with separate waste.
- In case of incorrect disposal, sanctions can be applied as established by the local laws on waste disposal.

2. THE RECIPIENTS OF THIS MANUAL

The contents of this manual are intended for professional users, such as XWEB installers. It may also be of use to the administrator of the network that it is connected to.
The mechanical product drawings required for any form of intervention and the possible network configurations are all an integral part of this manual.

3. PACKAGE

Before opening the package make sure that the packaging is intact and that there is no sign of impact or tampering. Before starting any operation, it is necessary to check that the XWEB box contains:

- 1 XWEB 5000 PRO unit
- 1 Power cord
- 2 brackets for RACK mounting
- 8 screws for the brackets
- Removable female connectors (2x2ways, 2x3ways 1x6ways)
- 4 feet for TABLE mounting
- 6 Jumpers
- 1 DVI-VGA Converter
- 1 Installation manual
- 2 ferrites

If one of the following parts is damaged, promptly contact your dealer.

You may also receive a modem or a wifi dongle- which will not be included in the same package - as a package option. When working with a modem connection, always check that the type of modem you are about to install is a Dixell approved model; as it cannot be held responsible for the malfunctioning of devices not expressly approved by it.

4. TECHNICAL DATA

Power supply	100-230 V
Power	60 W
Voltages and maximum current applicable to the AUX terminals 1-2-3	AUX1-2-3 24V AUX1 8A AUX2-3 4A
Operating conditions (temperature, humidity, special conditions)	0/45°C R.H.5÷95% (non-condensing)
Electrical safety	LVD - COUNCIL DIRECTIVE 2014/35/EU
Electromagnetic compatibility	EMC - COUNCIL DIRECTIVE 2014/30/EU
Internal battery and RTC accuracy	Rechargeable and non-removable lithium battery. The accuracy of the RTC is ± 35 ppm, the maximum drift of the clock in a year is therefore about 18 minutes
Approvals	The system consisting of this control and monitoring unit and Dixell temperature meters compliant with the EN13485 standard complies with the EC regulation no. 37/2005 and in particular with the EN12830 standard. Temperature recorders for the transport and storage and distribution of chilled, frozen, deep-frozen and ice-cream products (UNI EN 12830, S, A, 1, measurement range corresponding to the class of connected devices)

CAUTION: 	**The terminal block to connect AUX1, AUX2 and AUX3 relays cannot be used to pilot high voltage loads directly (higher to 24V). Use an intermediate low voltage circuit and/or suitable remote switch.**

5. INSTALLATION

5.1 XWEB

For installation, the XWEB system must not be opened in any way. If the box is opened, the warranty will lapse.

XWEB can be installed in various ways based on the type of user interface access that you wish to provide for the final user. Below is a description of the most complete procedure, i.e. where the system's user interface can be used entirely in local control. If the system has already been configured and you wish to use the interface through modem or Ethernet, points 5 to 9 may be optional. The particular features of these types of connectivity are described herein.

To set up a local installation of the system, we recommend having the following equipment available:

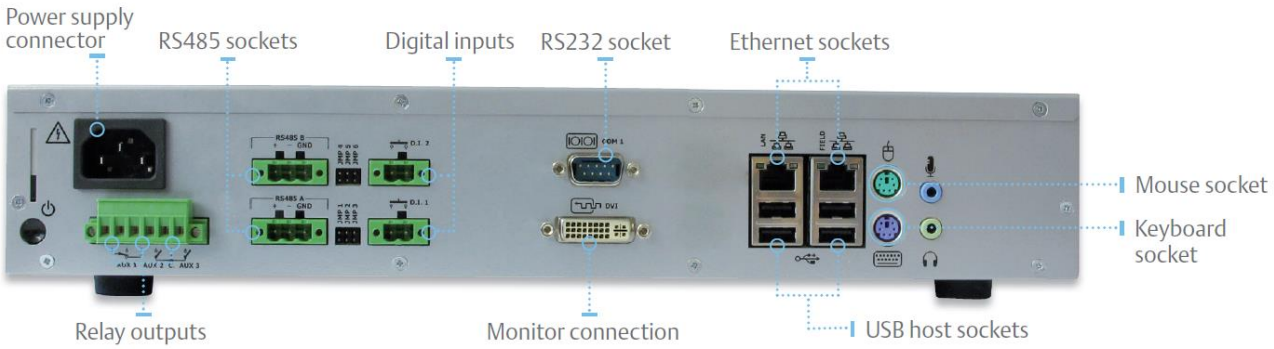
- a Phillips and a slot-head screwdriver;
- a PS2 or USB mouse;
- a PS2 or USB keyboard;
- a monitor with a DVI or VGA connector. We recommend using high definition monitors

The system must be installed referring to the figure below, which illustrates the rear XWEB panel, and following the points listed here:

1. The product has a power plug with protective earth. Make sure that the electrical system has a protective earth connection;
2. Attach the XWEB device in the position it will be used in. If it is installed on a table, set the rubber feet up in the holes on the underside of the device. For rack installation, on the other hand, use the supplied brackets and screws.
3. Connect it to the power mains by the supplied power cord. Set the power plug up so that it is easily accessible at all times. **Note:** Do not turn the system on;
4. Connect the RS485, the relays and digital inputs, and end and/or polarise the line, if necessary;
5. Connect any telephone lines and/or LAN network cables;
6. Connect any keyboard and mouse;
7. Connect any monitors;
8. Connect any printers;
9. Connect any modem: internal modem or external modems. The cable must not be any longer than 10 m.
10. It is now possible to turn the system on by pressing and releasing;

For operator safety and to protect the XWEB system, before performing any sort of operation, connect the system to the electrical network by the supplied cable. Power cord must be the last to be removed.

- *Avoid direct passage between operators as much as possible (to avoid electrostatic induction and subsequent discharges);*
- *If the electrical voltage supply differs from the required rating, this could seriously damage the system;*
- *Connection errors (and connections that differ from the prescribed ones) can pose a danger to operator safety and cause faults in the system and to the instruments that are connected to it;*
- *Insert one or more easily accessible disconnecting devices to the exterior of the device to separate the device from the power mains;*
- *Do not use the device in environments with flammable gases.*
- *Do not modify the device in any way.*



LED

LED	Colour	Description
Pwr	Green	On when the system is powered
HDD	Blue	On when the disc executes physical writing operations
Rec	Blue	On when the system is recording data
Ser1/Ser2	Blue	On when the system is reading and/or writing on serial port 485
Mdm	Blue	On when the system runs operations with the analogue modem
DI1/DI2	Blue	On when the system detects the digital input as being active
Aux1/Aux2/Aux3	Blue	On when the system sets the relay output as active
Alarm	Red	On when the system detects an alarm

XWEB can also operate without having a screen, mouse and keyboard attached. For example, it is possible to use this initial system installation configuration and then disconnect them definitively if you only intend to set up access from the remote station. If you intend to use external peripheral devices, always connect them to the unit before turning it on. Caution: always and only connect the external peripheral devices before turning on XWEB. If necessary, consult the instructions manual for the individual connected device.

When the system has been launched, the home page will appear (also known as the login page) on the screen connected to XWEB. Enter user name and password to login.
Note that the user interface for the connection is always the same, regardless of what type of access has been set up: local PC, Intranet or Internet.

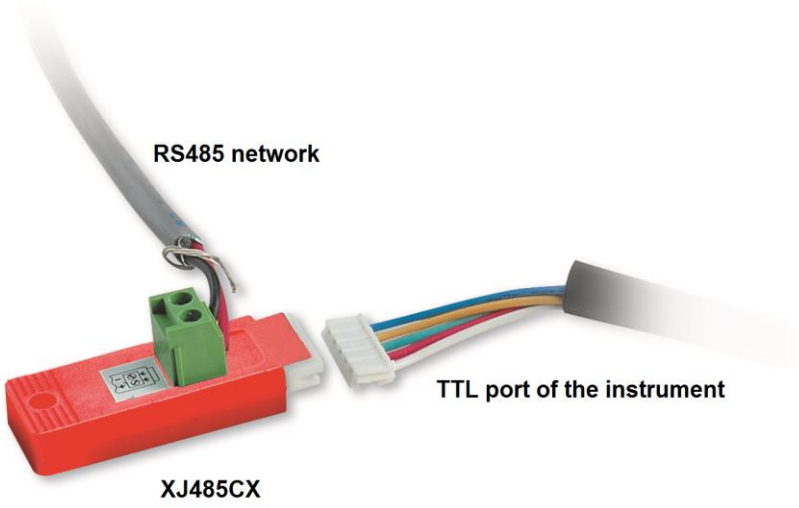
5.2 CONTROLLERS

XWEB has at least one RS485 serial port, on which the line of the controller devices can be connected. If there are more serials, more device lines can be served.

Most Dixell controller devices are equipped with an RS485 serial output and can be connected without the need for any additional module or connection cable. To make sure of this possibility, check the characteristics of the controller in its manual.

Some Dixell devices however, may not be direct, but it can be obtained via the small external Dixell XJRS485 or Dixell XJ485 converter. It converts the controller output from "TTL" (five wires) to "485" (two wires). If you need to use the TTL / 485 converter, please pay attention in:

- Keep the TTL cable away from any source of electromagnetic disturbance
- Connect each XJ485 module to the instrument with the TTL cable supplied with the module itself
- Mark the polarity of output 485 which must be respected when connecting the instruments to the network

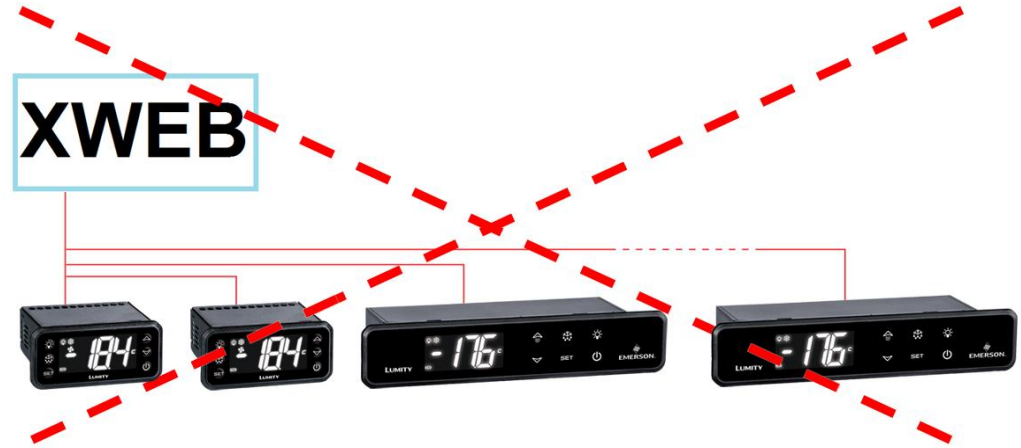


Below is a list of operating tips to obtain the best result in terms of instrument network reliability, RS485 serial connection:

- The serial line cable can be of the two-wire type plus shield, with a minimum section of 0.5mm2 (eg the BELDEN 8772). This cable is recommended for its technical characteristics and for maintaining the quality of the electrical signal;
- The serial line cable must reach all the instrument stations: check the plant layout and the various distances that the cable will have to travel;
- The serial line cable can reach a maximum length of 1 km
- Respect the polarities indicated on the instrument with those of the cables leading to the serial line;

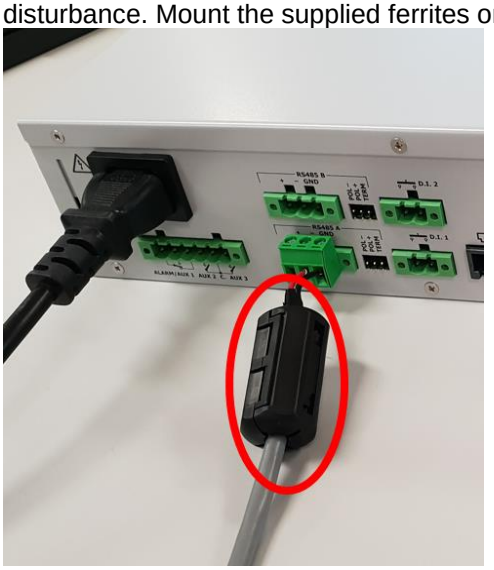
- Do not branch into the line:

Correct



Mistaken

- Keep the serial cable away from power cables and any possible source of electromagnetic disturbance. Mount the supplied ferrites on the serial ports as shown in the figure



- Do not connect the shield of the serial cable to the earth of the electrical system
- Do not connect the “Gnd” terminal.
- Draw a map of the installation you are performing: it will be useful both in case of problems and in case of future changes; the serial line must reach all the stations where the instruments must be controlled.

On the same line, each controller is normally programmed with its own unique serial address, through the Adr parameter. Refer to the installation manual of the instrument itself for the access and modification procedure. To obtain a simple description of the categories to which they belong, divide the programming of the addresses progressively. Some special cases are listed on the following pages.

To keep the RS485 line balanced, the ends must be terminated with a 120Ω resistor. If the XWEB is at one end of the RS485 line, it is advisable to insert the 120Ω termination resistor on the last instrument and on the XWEB. To activate the EOL resistor, insert the jumper in position 2 (word TERM). DO NOT insert the jumper if the XWEB is in the middle of the RS485 line.

Notes on the use of polarization resistors (POL-, POL +)
In order to avoid false signals on the bus, polarization resistors must be inserted. It is important to note that they must be inserted in one and only one place in the network, otherwise the communication will deteriorate; the node in which they are inserted is irrelevant even if it could be convenient to do so on the XWEB, checking that the other instruments of the serial network have not already integrated and permanent them.

5.2.1 CONFIGURATION FOR XC400/600/800/900 AND XH200/300/400 SERIES

These instruments have two serial addresses and must be configured in the same way. Refer to the instrument's installation manual to learn about the access and editing procedures.

5.2.2 CONFIGURATION FOR XJA/XJP/XJM MODELS

XJA/XJP/XJM series instruments are configurable with one or more modbus addresses. Refer to their installation manual for the configuration procedures.

6. LOCAL CONNECTIVITY

Local access with a screen, mouse and keyboard directly connected to the XWEB is the most common and most frequently used type of access for the user interface. The system can work even without these peripherals connected and it is possible, for example, to use this mode only for the initial configuration of the system; and then disconnect them even permanently if access is provided only from a remote location.

XWEB supports PS / 2 mouse and keyboard or USB mouse and keyboard which can be connected to any available USB port. The screen that can be connected to XWEB must be of the type with DVI connector (or VGA using the adapter supplied as an accessory) and have a minimum resolution of 1024x768. We recommend using a screen with a resolution higher than 1024x768 pixels. Check your display's instruction manual for supported resolutions.

7. REMOTE CONNECTIVITY

7.1 GENERAL AND MINIMUM REQUIREMENTS

	The user or the installer of XWEB can access its user interface, as well as locally with screen, keyboard and mouse, also through a PC that must be connected and configured to be able to communicate with the XWEB network. The XWEB Ethernet port that must be used for remote connectivity must be the LAN port, as shown in the image below.
	 **Attention**: due to its technical characteristics and to maintaining the quality of the electrical signal, it is recommended to use shielded ethernet cables; if it is not possible to use shielded cables, apply the supplied ferrites; the image below shows the ferrite applied to a LAN port.

Performances using a PC as a user interface terminal is greater than the use of local connectivity, therefore it is recommended to use it especially in the first configuration phase. The user interface available remotely is the same as available locally.

The terminal used must comply with and support the minimum characteristics for the installation and use of the following software.

7.2 DESKTOP SOFTWARE REQUIREMENTS (PC)

Browser	Support	Minimum Version
Microsoft Edge	SUPPORTED	16+
Mozilla Firefox	SUPPORTED	54+
Google Chrome	SUPPORTED	58+
Apple Safari	SUPPORTED	10.1+
Opera	SUPPORTED	44+
Microsoft Internet Explorer	NOT SUPPORTED	

7.3 SOFTWARE MOBILE REQUIREMENTS (SMARTPHONE/TABLET)

Browser	Support	Minimum Version
Apple iOS Safari	SUPPORTED	10.3+
Android Google Chrome	SUPPORTED	58+
Android Mozilla Firefox	SUPPORTED	54+

All newer computers are capable of meeting these requirements. However, it is advisable to use the advice of a computer expert to evaluate the computers to be purchased and / or already in your possession.

In the following sections, general information on possible network configurations will be provided. Right from the start, we recommend that you make use of IT experts and / or your network administrator to evaluate the configurations best suited to your needs.

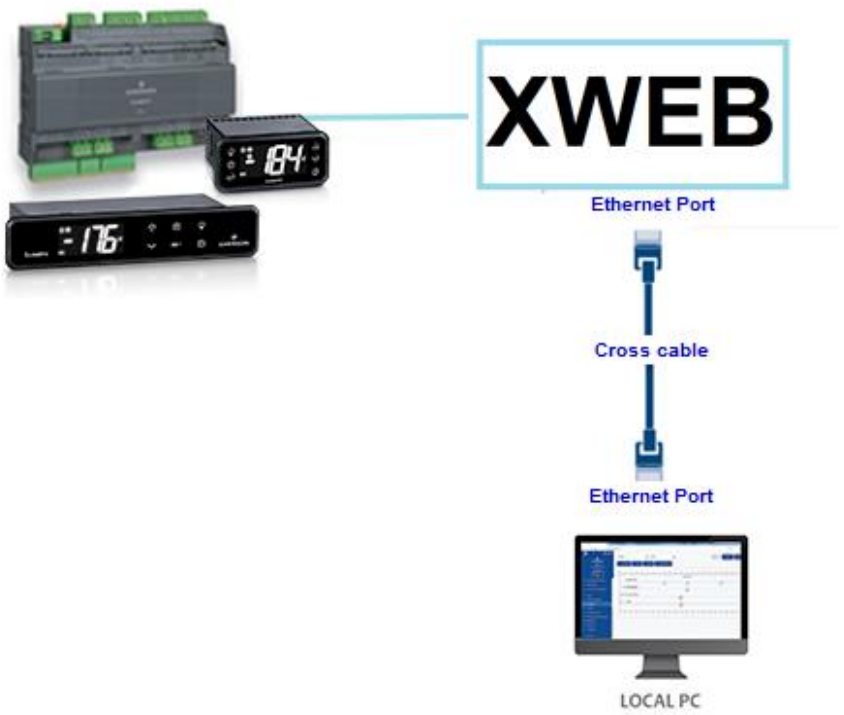
Softwares such as antivirus, firewall, toolbars can prevent the correct display of the XWEB pages. We recommend checking the configuration of these softwares and adding the XWEB IP address to their list of safe sites. **For firewalls, make sure that ports 80 and 22 are mapped to the XWEB so that it can be reached from the outside.**

7.4 CONNECTIVITY WITH CROSS CABLE

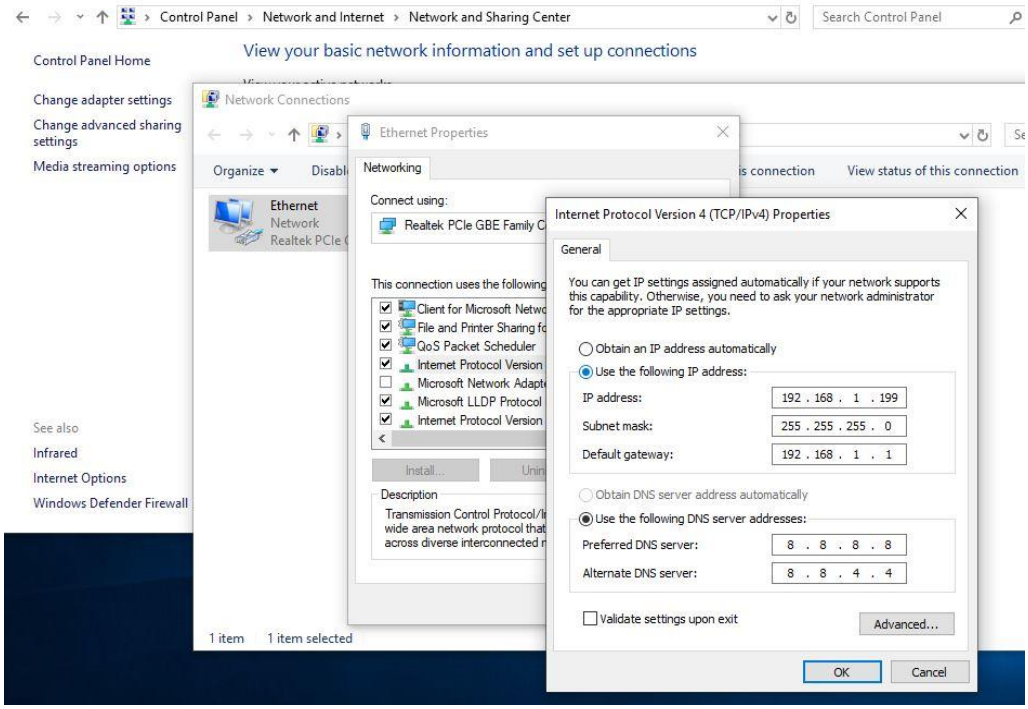
Local access from the PC is the fastest way to manage setup. It is possible to connect a PC to XWEB through the network interface supplied with an 'RJ45 Ethernet connector'. The connection between the two must be set up using a cross network cable (aka 'cross cable'). This cable is available at any computer store.

Once the physical connection has been set up, launch the browser on your PC and enter the following in the address bar http://192.168.0.200 (XWEB default address). The connection procedure is complete when the login page opens up. Enter user name and password to start using your XWEB.

Caution: a pre-requisite to setting the connection up correctly is that the XWEB address and network interface address on your PC need to have a compatible IP class. For example, with an XWEB network interface configured with 192.168.0.200, the network interface on your PC can be configured with 192.168.0.15



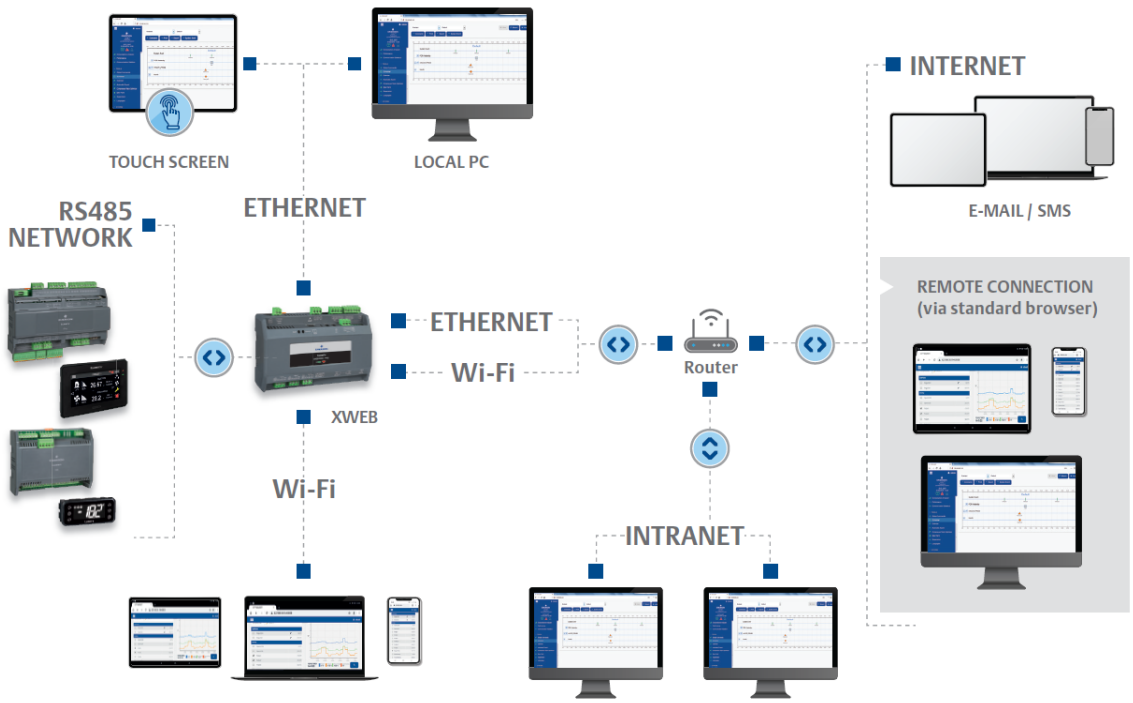
In order to configure the network interface of your PC, administration privileges are normally required. Refer to the documentation of your PC's operating system. The following figure shows the steps to be taken to configure the network interface of a PC with WINDOWS.


Control Panel › Network and Internet › Network and Sharing Center
Search Control Panel
Control Panel Home
View your basic network information and set up connections
Change adapter settings
Change advanced sharing settings
Media streaming options
Network Connections
Organize
View status of this connection
Ethernet
Network
Realtek PCIe
Ethernet Properties
Networking
Connect using:
Realtek PCIe GBE Family C
This connection uses the following
Client for Microsoft Netwo
File and Printer Sharing fo
QoS Packet Scheduler
Internet Protocol Version
Microsoft Network Adapt
Microsoft LLDP Protocol
Internet Protocol Version
Install...
Description
Transmission Control Protocol/I
wide area network protocol that
across diverse interconnected n
Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 199
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 8 . 8 . 8 . 8
Alternate DNS server: 8 . 8 . 4 . 4
Validate settings upon exit
Advanced...
OK
Cancel
See also
Infrared
Internet Options
Windows Defender Firewall
1 item
1 item selected

7.5 INTRANET CONNECTIVITY ("OR LAN CONNECTION") AND VPN

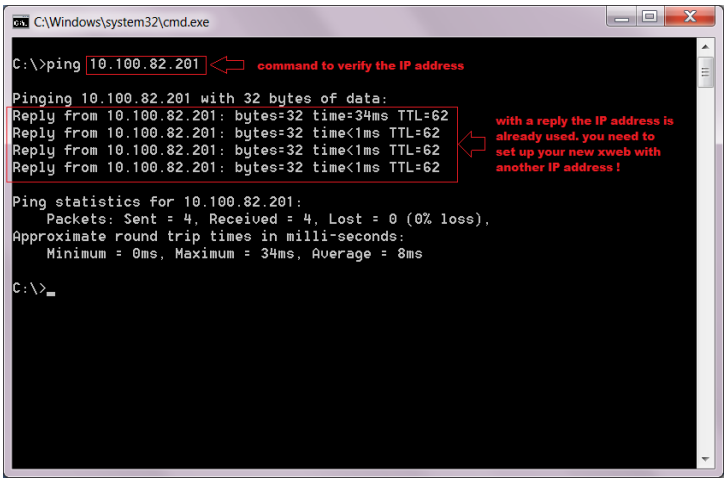
This type of connection will allow you to access XWEB from any PC connected to the local network. This type of connection must also be used to configure the XWEB for connection from the internet via VPN (Virtual Private Network). This last type of connection, once established, brings your PC - connected to the internet - to become part of the local XWEB network.

Attention: the connection to your company's local network is assumed to be managed by qualified personnel and / or by the network administrator. Which must be able to assign a valid IP address to the XWEB and be able to provide - for your PC - any software and credentials if you want to use a VPN network for access.



Before connecting the XWEB to the network, check that the IP address you wish to use for the XWEB is actually free and therefore usable. You could perform a PING to that address and if at least one reply is received at the PING, the address must be changed as it is already used.

Example:



Before connecting the XWEB to the network, please configure its IP (and other network configuration parameters) using the direct local connection (with screen, keyboard and mouse) or with the local PC connection with crossed cable. Once the network parameters have been set, the XWEB can be connected to the local network with a standard RJ45 cable. Connect from your PC to XWEB by opening the browser and

entering the XWEB IP address in the address bar. The default address is: http://192.168.0.200. Store the address in the list of favorites.

7.6 INTERNET CONNECTIVITY ON PUBLIC IP

This type of connection will allow you to directly access XWEB from any PC connected to the internet without having to install - on your PC - any additional software.

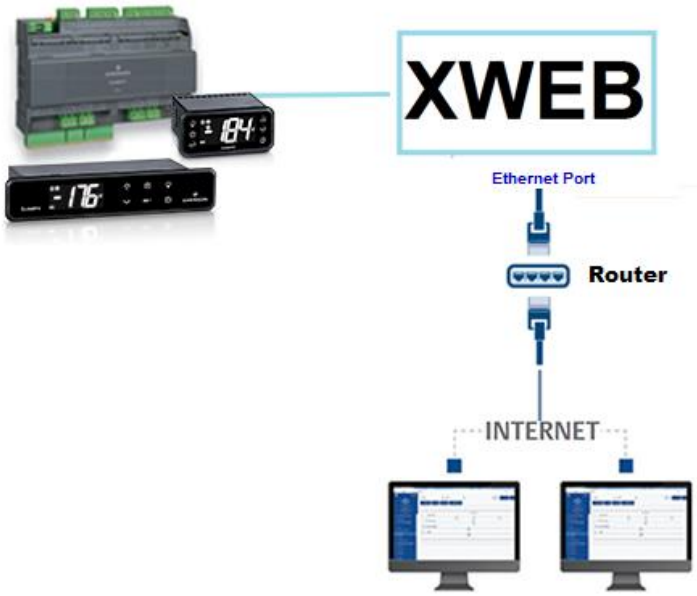
Attention: the connection to the Internet presumes to be managed by qualified personnel and / or by the network administrator.

In order to connect your XWEB to the Internet, you need a 'public and static IP address', which must be specifically requested from your ISP (Internet Service Provider). Tell your ISP that you want to install a webserver: this will help them recognize your needs and provide you with an adequate connection. It is highly recommended to obtain all the details of the supply contract for the management of any future connection problems.

Connection to the internet is possible in the presence of a router. Its configuration, as well as that of XWEB depend on the data provided by your ISP. Depending on the type of contract, the provider can supply the router or the customer can purchase it separately.

Provide your ISP and / or network administrator with the XWEB ports (LAN side)

- 80 (used for HTTP access)
- 22 (used for SSH logins)

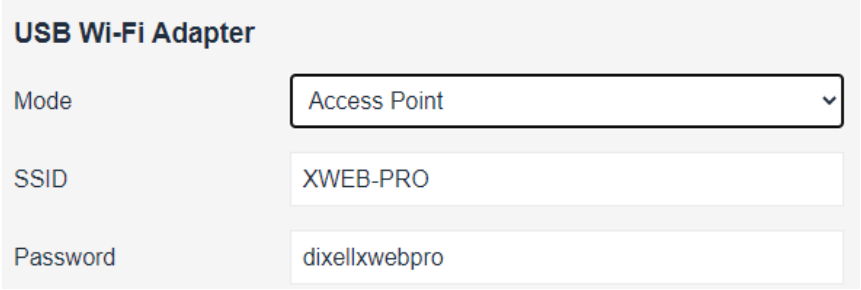


7.7 WIFI CONNECTIVITY

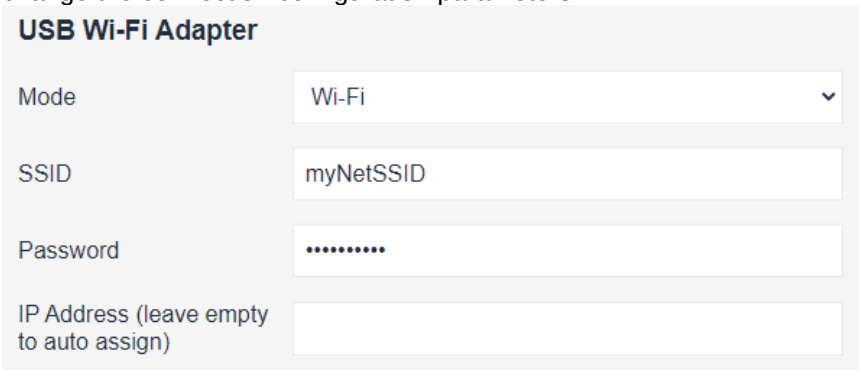
This type of connection will allow you to directly access XWEB from a device equipped with a Wi-Fi connection, or to allow XWEB to access an already configured Wi-Fi network. A prerequisite for these types of connectivity is the installation of the WIFI dongle in the XWEB USB port.

ATTENTION: Only use dongles officially supported by this monitoring unit.

Connecting a mobile device to the XWEB access-point
XWEB is normally supplied preconfigured in this mode so that the user can search with his PC / smartphone / tablet to an "XWEB-PRO" SSID network. The default password is “dixellxwebpro”.
Fixed IP 172.21.0.1



Connection of XWEB to existing Wi-Fi network
XWEB can be connected via Wi-Fi to a Wifi-AccessPoint already present on the site. In this case, you need to temporarily access the XWEB interface with another type of connection (typically with a crossed cable) to change the connection configuration parameters.



Configuration changes can be made by the user after accessing the user interface from the System→Settings→Network menu.

ATTENTION: no access to port 22 service is provided in Wi-Fi.

8. OPERATIVE PROCEDURES

For the operating procedures please refer to the OPERATING MANUAL available in Dixell web site.

https://webapps.emerson.com/Dixell/Pages/Manuals
CONTACT: dixell.service@emerson.com

9. SYSTEM DATA

Fill in the table below, make a xerox copy and keep it near the XWEB.

HostName _____ [example: myXWEB001]

IP Address _____ [example: 192.168.0.123]

Gateway _____ [example: 192.168.0.1]

DNS _____ [example: 8.8.8.8]

SMTP _____ [example: 192.168.0.14]

E-mail Address _____ [example: myXWEB001@company.com]

Modem _____

Telephone number _____

10. TRADEMARKS

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11. NOTES

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