



XWEB1000D PRO

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CAUTION: TO PREVENT FLAMES FROM DEVELOPING OR ELECTRIC SHOCK, AVOID ANY CONTACT BETWEEN THIS DEVICE AND RAIN OR WATER			
	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN		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. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures		
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 product is not suitable for environments subject to mechanical vibrations and does not withstand shocks. It must be installed in a dry and clean environment.
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

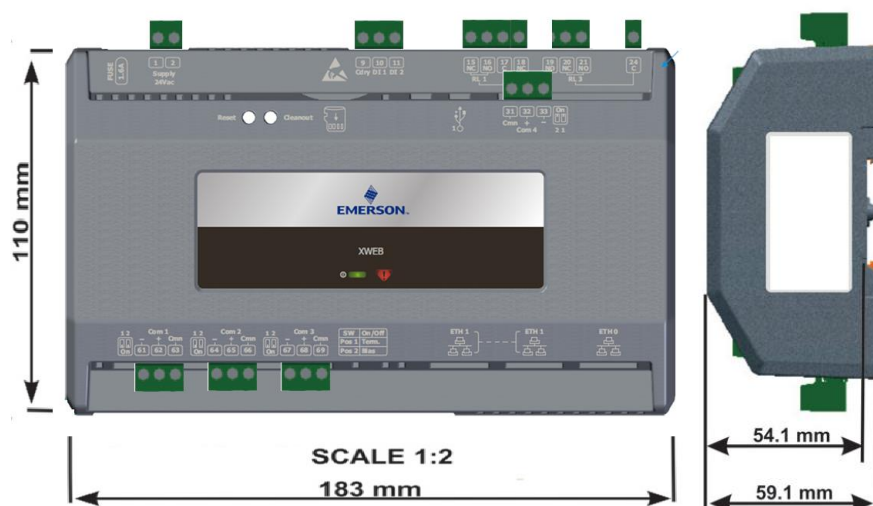
Before opening the package make sure that the packaging is intact and that there is no sign of impact or tampering. Before starting any operation, it is necessary to check that the XWEB box contains:

- 1 XWEB Unit
- 1 Installation Manual
- 1 Cross Cable 1mt
- Removable female connector
 - 1x2 ways,
 - 5x3 ways
 - 1x4 ways
 - 1x6 ways
- jumpers

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



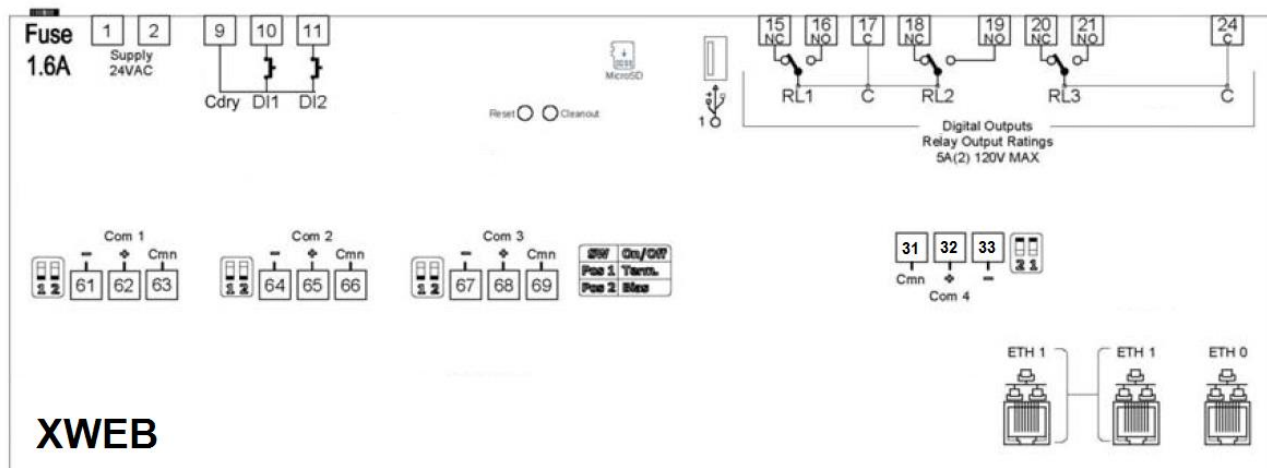
XWEB is DIN Rail mounting compatible. Snap the orange tabs on the back of the unit to the down position to fasten. If not using the DIN Rail mounting option, fasten to the mounting surface using the openings in the mounting tabs.

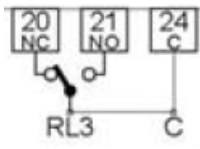
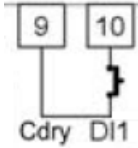
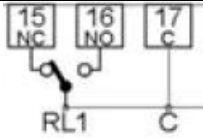
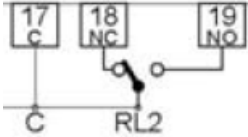
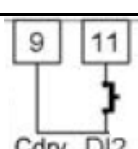
Dimensions	183 x 110 x 59.1 mm
Weight (without accessories)	436g
Mounting	DIN rail mounting device
Degree of Protection	Indoor use, Open Type (NEMA - UL 50e)
Enclosure Rating	UL 94 V-0
Power	24Vac, 20VA
Overvoltage Category	II
Rated Impulse Voltage	2500V
Type of Action	1.B of N.O.; 1.C of N.C. (Relay 1-4)
Pollution Degree	2
Ambient Operating Temperature	-40 to 140 °F (-40°C to 65°C)
Shipping and storage temperature	-40÷85 °C
Relative Humidity	20-85% RH noncondensing
Digital Inputs	2, Dry contacts
Relay Outputs	3
Digital Output Ratings	Relay 1 (N.O. & N.C.) 5A, 125/240 VAC, General Purpose, 100K cycles; 4FLA/4LRA, 250VAC, Motor Load, 100K cycles; Relay 2 (N.O. & N.C.) 5A, 125/240 VAC, General Purpose, 100K cycles; 4FLA/4LRA, 250VAC, Motor Load, 100K cycles; Relay 3 (N.O. & N.C.) 5A, 125/240 VAC, General Purpose, 100K cycles; 4FLA/4LRA, 250VAC, Motor Load, 100K cycles;
RS485 ports	MODBUS Com Ports 1, 2, 3, 4
Ethernet ports	Ports ETH1, ETH1, ETH0 (ETH1 has no IP)
USB Ports	1
MicroSD	1
Purpose of control	Operating control
Construction of control	Incorporated control, intended to be used in Class I or Class II equipment
Approvals	CE

5. INSTALLATION

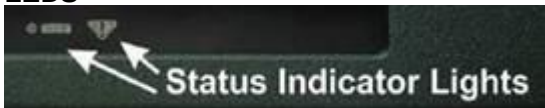
5.1 XWEB WIRING DIAGRAMS

For installation, the XWEB system must not be opened in any way. If the box is opened, the warranty will lapse. XWEB-EVO can be installed in various ways based on the model and type of user interface access that you wish to provide for the final user. The features of these types of connectivity are described herein. CAUTION: in order to protect yourself and the XWEB, turn on the unit only after connecting all the electrical devices. In order to avoid accidental operation, connect the power cord only after connecting all the other external units.

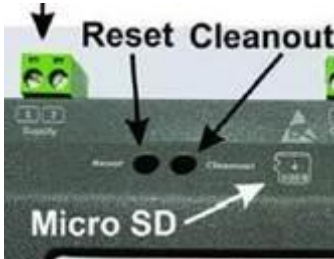


 1-2	Power supply 24Vac		Relay 3 (AUX2)															
	USB ext. peripherals																	
 ETH0, ETH1	RJ45 LAN connector		Digital Input 1															
 <table border="1" data-bbox="175 1476 464 1637"><thead><tr><th>-</th><th>+</th><th>Cmn</th></tr></thead><tbody><tr><td>61</td><td>62</td><td>63</td></tr><tr><td>64</td><td>65</td><td>66</td></tr><tr><td>67</td><td>68</td><td>69</td></tr><tr><td>31</td><td>32</td><td>33</td></tr></tbody></table>	-	+	Cmn	61	62	63	64	65	66	67	68	69	31	32	33	RS485 COM1, COM2, COM3, COM4		
-	+	Cmn																
61	62	63																
64	65	66																
67	68	69																
31	32	33																
	Relay 1 (System alarm relay)																	
	Relay 2 (AUX1)		Digital Input 2															

LEDS



- “Rectangle LED”: Power on / Cleanout
- “Triangle LED”: Alarm / Cleanout



Micro SD

Removable storage media currently used for Backup / Restore functions.



Note: The media must already be inserted at the XWEBEVO power on. It is not mounted "on the fly"

Reset Button

As long as it is pressed, the device is off. Very similar to the reset button on PC
On release, the system restarts as per power on.

	• <i>Avoid direct passage between operators as much as possible (to avoid electrostatic induction and subsequent discharges);</i> • <i>If the electrical voltage supply differs from the required rating, this could seriously damage the system;</i> • <i>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;</i> • <i>Insert one or more easily accessible disconnecting devices to the exterior of the device to separate the device from the power mains;</i> • <i>Do not use the device in environments with flammable gases.</i> • <i>Do not modify the device in any way.</i>
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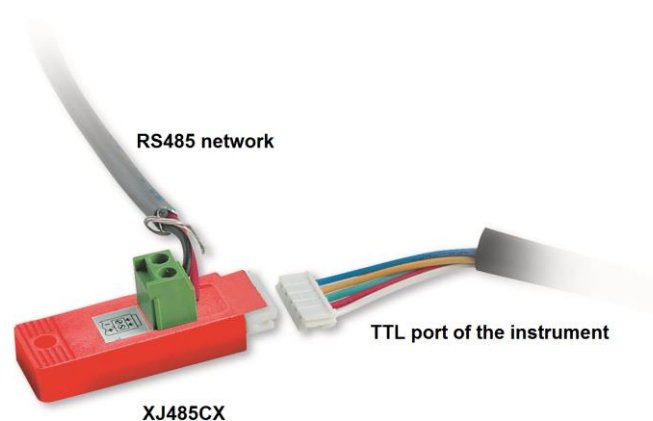
5.2 CONTROLLERS

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:

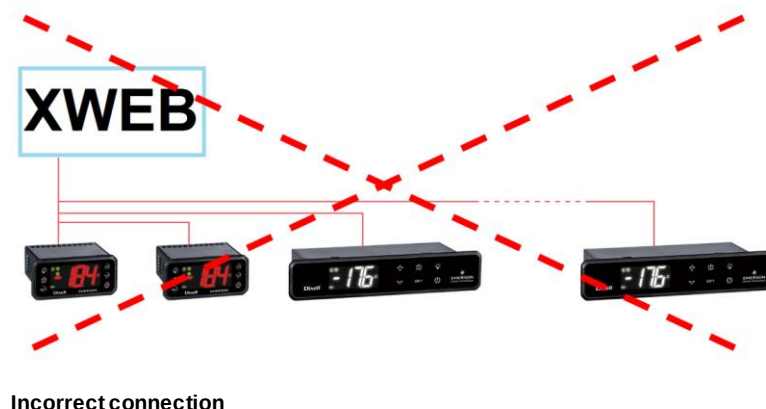
- Keep the TTL cable away from any source of electromagnetic disturbance
- Connect each XJ485 module to the instrument with the TTL cable supplied with the module itself
- Mark the polarity of output 485 which must be respected when connecting the instruments to the network



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 the shield, with a minimum section of 0.5mm² (eg 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
- Keep the serial cable away from power cables and any possible source of electromagnetic disturbance
- 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.

- Do not branch into the line:



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 1500Ω 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 enable TERM. DO NOT enable it if the XWEB is in the middle of the RS485 line.



SW	On/Off
Pos1	Term
Pos2	Bias

5.3 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.

5.4 CONFIGURATION FOR XJA/XJP/XJM MODELS

These instruments are configurable with one or more modbus addresses. Refer to their installation manual for the configuration procedures.

5.5 USING A DC VOLT METER TO CHECK XWEB TERMINATION AND BIAS

Unplug connector from the XWEB Serial port and make DC voltage measurements on the Serial port pins. Place the meter common probe on the Serial **Comm** pin and measure voltage on the Serial port "+" pin and the Serial port "-" pin. See the table below for expected voltages.

Term	Bias	Serial +	Serial -
OFF	ON	5Vdc	0Vdc
ON	ON	2.7Vdc	2.3Vdc
OFF	OFF	*2.4Vdc	*2.4Vdc

****Note that for both Termination and Bias OFF, the voltage on both pins are undetermined but typically equal and near 2.4Vdc.***

6. REMOTE CONNECTIVITY



The user can access the web user interface from a PC or equivalent device properly connected and configured. The use of a PC or in any case a high resolution graphic terminal is recommended in the first configuration phase.

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

6.1 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	

6.2 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.

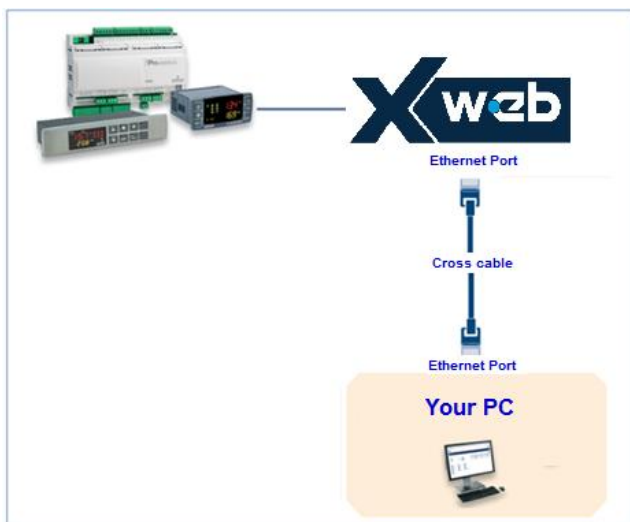
In the following sections, general information on possible network configurations will be provided. Right from the start, we recommend that you make use of IT experts and / or your network administrator to evaluate the configurations best suited to your needs.

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.**

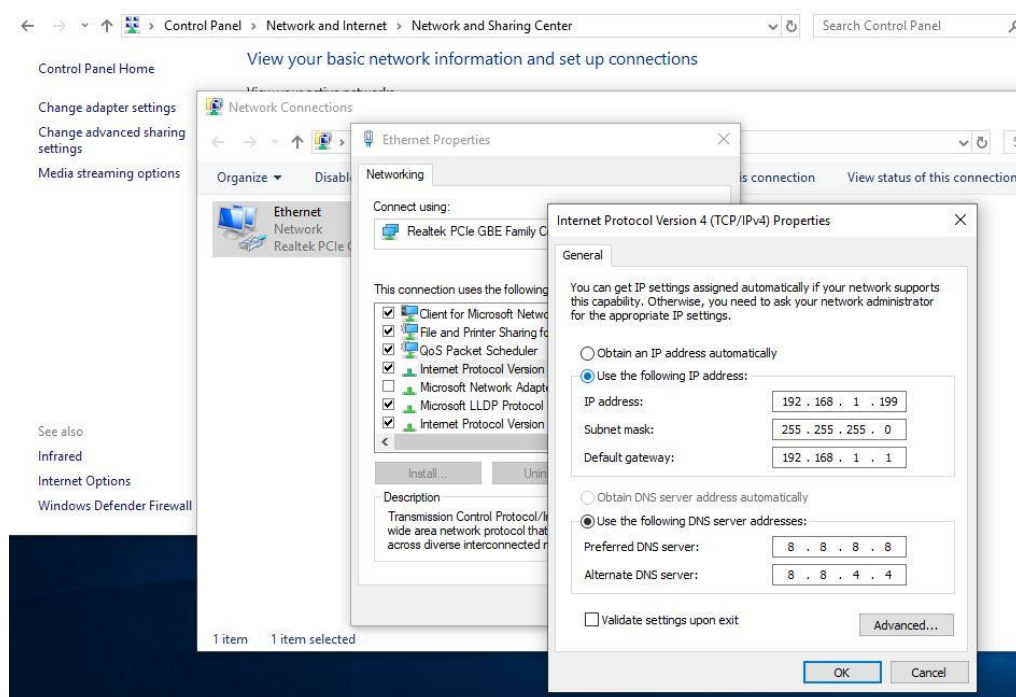
6.3 CROSSOVER CABLE INSTRUCTIONS

Local access from the PC is the fastest way to manage the setup. It is possible to connect a PC to XWEB via the network interface supplied with the 'RJ45 Ethernet connector'. The connection between the two must be made via a crossed network cable (aka 'cross cable'). This cable is available in any computer store. After the physical connection, launch the browser of your PC and enter `http://192.168.0.150` in the address bar. Displaying the initial page (login) will complete the connection procedure. Enter username and password to start using your XWEB.

Warning: a prerequisite to be able to connect correctly is the compatibility of the IP class between the XWEB address and that of the network interface of your PC. For example, with the XWEB network interface configured at 192.168.0.200, the network interface of your PC can be configured with at 192.168.0.15



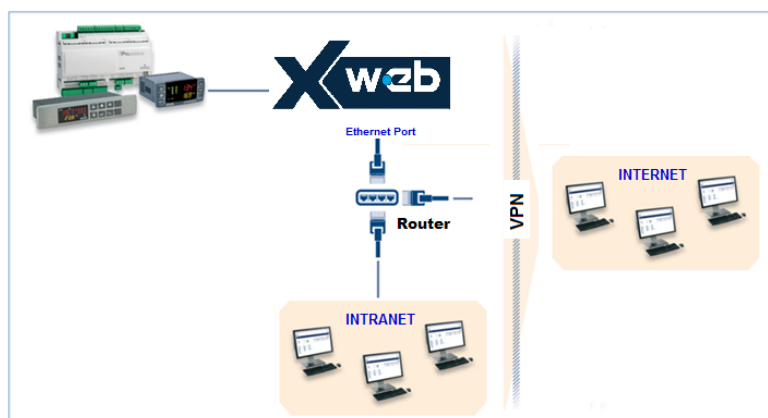
In order to configure the network interface of your PC, administration privileges are normally required. Refer to the documentation of your PC's operating system. The following figure shows the steps to be taken to configure the network interface of a PC with WINDOWS.



6.4 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.

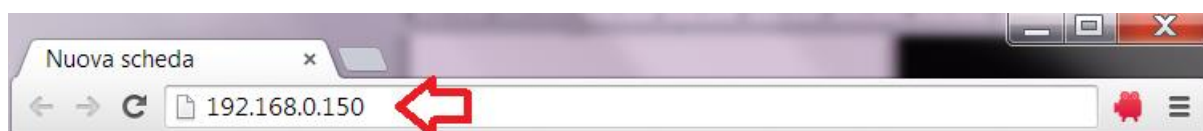
Example:

```
C:\Windows\system32\cmd.exe
C:\>ping 10.100.82.201
Pinging 10.100.82.201 with 32 bytes of data:
Reply from 10.100.82.201: bytes=32 time=34ms TTL=62
Reply from 10.100.82.201: bytes=32 time<1ms TTL=62
Reply from 10.100.82.201: bytes=32 time<1ms TTL=62
Reply from 10.100.82.201: bytes=32 time<1ms TTL=62
Ping statistics for 10.100.82.201:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 34ms, Average = 8ms
C:\>
```

Annotations in the screenshot:

- Red arrow pointing to the IP address 10.100.82.201: "command to verify the IP address"
- Red arrow pointing to the first reply line: "with a reply the IP address is already used, you need to set up your new xweb with another IP address !"

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://192.168.0.150>. Store the address in the list of favorites.



6.5 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.



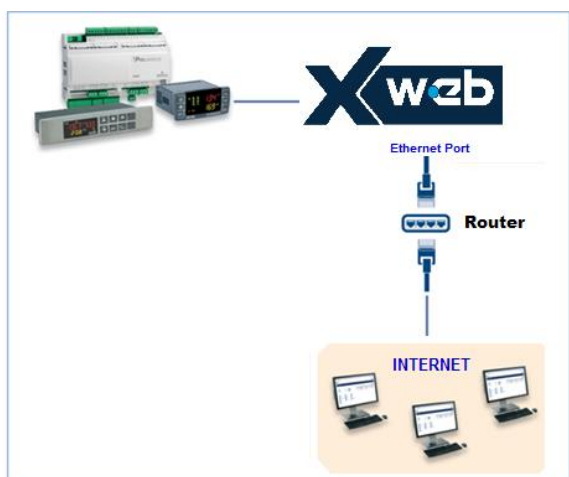
Attention: the connection to the Internet presumes to be managed by qualified personnel and / or by the network administrator.

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)

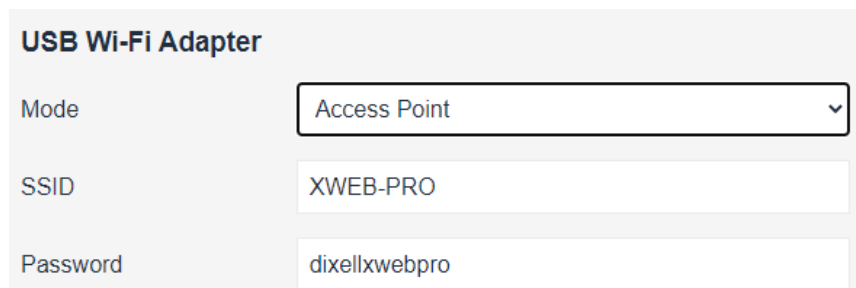


6.6 WIFI CONNECTIVITY

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

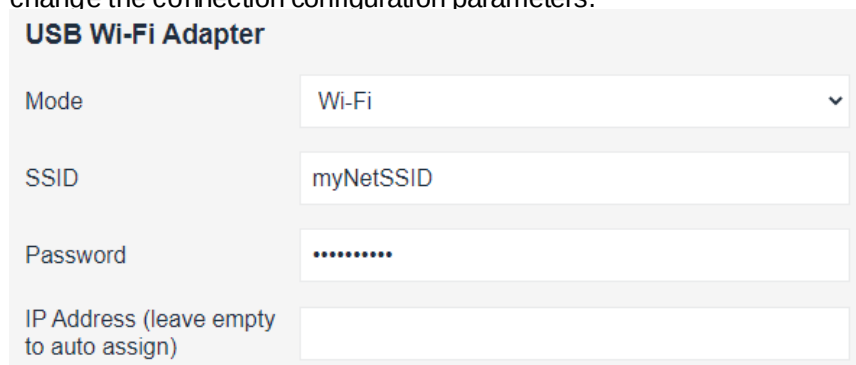
ATTENTION: Only use dongles officially supported by this monitoring unit.

i. 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-EVO" SSID network. The default password is "dixelxwebpro".



The screenshot shows a configuration window titled "USB Wi-Fi Adapter". It contains three fields: "Mode" is a dropdown menu set to "Access Point"; "SSID" is a text field containing "XWEB-PRO"; and "Password" is a text field containing "dixelxwebpro".

i. Connection of XWEB to existing wifi network
XWEB can be connected via wifi 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.



The screenshot shows a configuration window titled "USB Wi-Fi Adapter". It contains four fields: "Mode" is a dropdown menu set to "Wi-Fi"; "SSID" is a text field containing "myNetSSID"; "Password" is a text field with masked characters (dots); and "IP Address (leave empty to auto assign)" is an empty text field.

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 wifi

7. CLEANOUT

The procedure allows to restore the XWEB to the factory parameters; it is useful in cases where the IP address and / or port of the web service and / or login credentials (username / password) have been lost and / or in the presence of generic errors.

Function activated by pressing the button for a long time.

While the button remains pressed, the Cleanout procedure starts.

The progress of the procedure is intuitive thanks to the flashing of the LEDs:

1. Press the button
2. The two LEDs flash for ~ 5 seconds (Green)
3. The two LEDs remain steady for ~ 1 second (Green)
4. The two LEDs turn OFF
5. Release the button
6. The Cleanout starts and a reboot is triggered.

Throughout the procedure, then pressing the button takes about 6~7 seconds.

When restarting, you will find the Wizard active and System Settings preserved.

8. OPERATIVE PROCEDURES

For the operating procedures please refer to the OPERATING MANUAL, in the "Download Manuals" section of the website <http://www.dixell.com> where the updated version is available.

9. SYSTEM IDENTIFICATION

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]
Telephone number	_____	

10. TRADEMARKS

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Windows and Internet Explorer are registered trademarks of Microsoft Corporation in the United States and other countries.

Google is a registered trademark of Google Inc.

Firefox is a registered trademark of the Mozilla Foundation.

Linux is a trademark registered to Linus Torvalds.

Other names may be trademarks of their respective owners.

11. NOTES

[illegible]

Dixell S.r.l. - Z.I. Via dell'Industria, 27 - 32016 Alpago (BL) ITALY
Tel. +39.0437.9833 r.a. - Fax +39.0437.989313 - EmersonClimate.com/Dixell - dixell@emerson.com