

ELITEPRO XC/SP COMMUNICATION OPTIONS

rev061213

Note: This document covers the communications options for both the ELITEpro XC and ELITEpro SP. The information applies to both meters unless otherwise noted.

OVERVIEW

The purpose of this document is to explain the various ways to communicate with the ELITEpro XC or SP. Each method has its own advantages. A matrix is presented at the end which shows the advantages of each communication method at a glance.

USB

USB is the fastest way to communicate with the ELITEpro XC. It is best used when the ELITEpro XC and a PC running ELOG are located in the same place, such as a desk or bench.

KEY POINTS

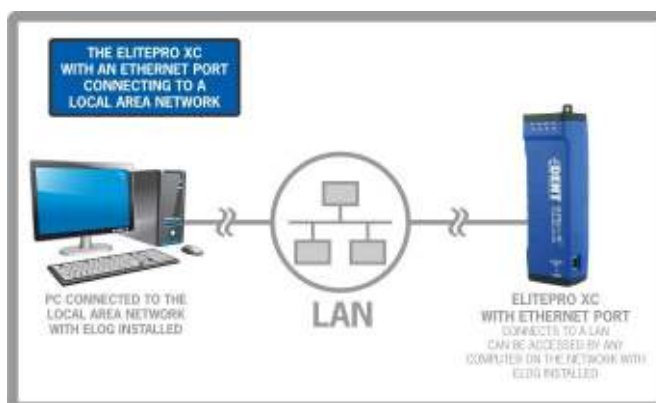
- The ELITEpro XC must be physically connected to a PC with a USB cable of limited length. This can be difficult during field installations.
- A PC running ELOG must be used.
- Little or no configuration of the PC is necessary; plug-n-play.
- For a large number of ELITEpro XC instruments, a USB hub must be used to connect to them all simultaneously.

ETHERNET

Ethernet is the next fastest communication method. It uses a PC running ELOG to connect to the ELITEpro XC over a local area network.

KEY POINTS

- The use of Ethernet requires a network connection between the PC and the ELITEpro XC.
- Ethernet may be used anywhere a network is used.
- Initial configuration must be done through USB.
- Some networks require the assistance of the network manager to procure a network address and ensure that communications can pass through corporate firewalls.
- Must configure the ELITEpro XC instruments with unique network addresses unless the network allows for DHCP (Dynamic Host Configuration Protocol) and the ELITEpro XC is configured to request an address automatically.



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BLUETOOTH® WIRELESS TECHNOLOGY

The *Bluetooth®* wireless technology option on the ELITEpro XC uses a PC with a *Bluetooth®* adapter that supports Serial Port Profile (SPP) to connect to the ELITEpro XC.

KEY POINTS

- *Bluetooth®* technology is wireless with a range of 10 to 100 feet depending on operating environment.*
- Configuration requires a PC with a USB connection and knowledge of Windows *Bluetooth®* device management.
- Requires a PC with a *Bluetooth®* adapter that supports Serial Port Profile (SPP).



WI-FI

The Wi-Fi option is the next fastest (after Ethernet) and allows for a PC running ELOG to communicate with a Wi-Fi-equipped ELITEpro XC over a wireless network. See diagram on next page.

KEY POINTS

- ELITEpro XC can be equipped with either an internal or external antenna. Range depends on application environment. 75-300 feet typical.**
- Configuration requires a PC with a USB connection running ELOG.
- If the Access Point (AP) or Wi-Fi HotXCot is connected to the local area network, the ELITEpro XC may be accessed by any PC on the network running ELOG.

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*Example *Bluetooth®* wireless technology internal antenna ranges:

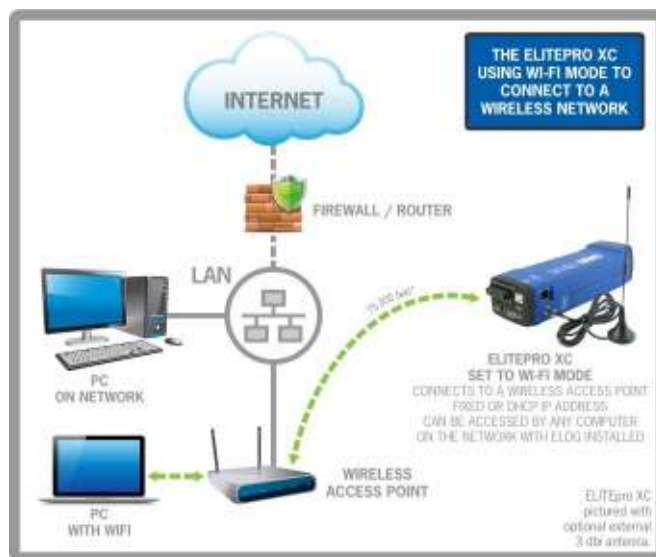
1. Open Air, as specified in manual: <100 ft.
2. One brick/concrete wall: <10 ft.
3. Two sheetrock walls: <20 ft.

**Example *Wi-Fi* internal antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <75 ft.
3. Two sheetrock walls: <100 ft.

**Example *Wi-Fi* external antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <150 ft.
3. Two sheetrock walls: <150 ft.



Wi-Fi Mode

ACCESS POINT MODE

In Access Point Mode, the ELITEpro XC is configured as its own hotXCot. Connect to the ELITEpro XC using a Wi-Fi-enabled PC running ELOG or use a Wi-Fi-enabled tablet, laptop, or smartphone to access the ELITEpro XC via a web browser. See diagrams on next page.

KEY POINTS

- Requires the use a Wi-Fi-enabled laptop, tablet, or smartphone for access to the logger via a web browser.
- Requires a PC running ELOG to communicate
- Configuration requires a PC with a USB connection running ELOG software.
- ELITEpro XC can be equipped with either an internal or external antenna. Range depends on application environment. 75-300 feet typical.**
- Access of ELITEpro XC via web browser allows limited functionality compared to ELOG software.

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**Example Wi-Fi internal antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <75 ft.
3. Two sheetrock walls: <100 ft.

**Example Wi-Fi external antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <150 ft.
3. Two sheetrock walls: <150 ft.



Access Point Mode using a web browser to interface with an ELITEpro XC with Wi-Fi.



Access Point Mode using ELOG to interface with an ELITEpro XC with Wi-Fi.

Continued...

**Example Wi-Fi internal antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <75 ft.
3. Two sheetrock walls: <100 ft.

**Example Wi-Fi external antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <150 ft.
3. Two sheetrock walls: <150 ft.



PERFORMANCE UPDATE

ELITEPRO XC/SP COMMUNICATIONS MATRIX

Feature	USB	Ethernet	Bluetooth®	Wi-Fi	Wi-Fi Access Point Mode
ELITEpro SP 8MB Download Time (approx.)	4 min	6 min	22 min	20 min	Using ELOG: 30 minutes Using Web Browser: N/A
ELITEpro XC 16MB Download Time (approx.)	8 min	12 min	44 min	40 min	40 min
Range	Length of USB cable	Length of network cable	10-100 ft*	75-300 ft**	75-300 ft**
Access with...	PC + ELOG	PC + ELOG	Bluetooth®-enabled PC + ELOG	Wi-Fi-enabled PC + ELOG	Wi-Fi-enabled PC + ELOG or Wi-Fi-enabled laptop, tablet, or smartphone with web browser.
Internet?	No	Depends on network firewall	No	Depends on network firewall	No
Functionality	Full	Full	Full	Full	Partial via web browser.

*Example Bluetooth® wireless technology internal antenna ranges:

1. Open Air, as specified in manual: <100 ft.
2. One brick/concrete wall: <10 ft.
3. Two sheetrock walls: <20 ft.

**Example Wi-Fi internal antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <75 ft.
3. Two sheetrock walls: <100 ft.

**Example Wi-Fi external antenna ranges:

1. Open Air, as specified in manual: <300 ft.
2. One brick/concrete wall: <150 ft.
3. Two sheetrock walls: <150 ft.