Technical Reference

KURZ INSTRUMENTS INC.™

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KzComm User's Guide

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Preface

Before You Begin

Important ***The warranty is void if it is not installed in accordance with the installation requirements specified in this guide. Read and thoroughly understand the installation requirements before attempting the installation. If you have any questions, contact your Kurz customer service representative before attempting installation.***

Using this Manual

Kurz documentation includes printed manuals and product literature, Adobe Acrobat PDF files, and application online Help files. The Kurz Instruments CD contains all the available documentation files. To read PDF files, download the free Adobe Acrobat Reader from www.adobe.com.

The Kurz Instruments website provides additional information:

- **World Wide Web:** www.kurzinstruments.com
- **Email:** service@kurzinstruments.com
- Documentation links to the most current manuals and literature

You can access device support in the following ways:

- **Main:** 831-646-5911
- **Phone:** 800-424-7356
- **Fax:** 831-646-8901

Manual Conventions

The following table lists conventions used in the Kurz documentation, and gives an example of how each convention is applied.

Table 1. Conventions used in this manual

Convention	For Example
Text type, click, or select (for example, field names, menus, and commands) are shown in bold.	Check the **Configuration File** checkbox.
Text appearing in a display or window is shown in courier.	`PRESS ENTER TO` `SET METER DATA`
An arrow (→) is used to separate a menu name from its menu command.	Select **Start→All Programs→Kurz Instruments→KzComm**.
Simplified directory structures and path names are used in examples. Your folder names may be different.	Programs Files\Kurz Instruments\KzComm.

Chapter 1

Introduction

Overview

KzComm for Windows communicates with Kurz flow meters to transfer the configuration data between the Kurz flow meter and the computer. It is backwards compatible with previous versions of the Series FT and B-Series flow meters, Series 2440 Portable Flow Meters, and the Series 155 Mass Flow Computer.

KzComm and KzComm Read-Only provide the following features for B-Series devices:

Feature	KzComm	KzComm Read-Only
Uploading configuration file	●	
Downloading configuration file	●	●
Printing configuration file	●	●
Extracting internal log files for min/max, event, and trend data	●	●
Loading sensor data for flow calibration and temperature compensation parameters	●	
Basic meter configuration changes either online or offline	●	

This chapter provides KzComm hardware and software requirements and limitations.

Hardware Requirements

KzComm uses XMODEM, Modbus RTU, MODBUS TCP/IP, or terminal communications protocols to communicate with the Kurz Series FT, B-Series, Series 155, and Series 2440.

- The B-Series use the XMODEM communication protocol via USB port, or the MODBUS protocol via RS-485 port or MODBUS TCP/IP. The Kurz USB device driver or FTDI USB device driver must be installed before attempting to connect a computer with a B-Series device via a USB cable.
- Series 155 Computer/Transmitter uses terminal communications via an RS-232C port.
- FT Series and Series 2440 Portable Flow Meter use the XMODEM communications protocol via an RS-232C port.

B-Series Devices

The B-Series devices require:

- A two-wire shielded cable for Modbus RTU.
- For the XMODEM protocol, a USB Type A-to-mini B cable.

  Note The Kurz USB device driver or FTDI USB device driver must be installed before attempting to connect a computer with a B-Series device via a USB cable.
- For the Modbus TCP/IP protocol, an Ethernet cable to a Modbus TCP/IP to RS-485 gateway.

Series FT Devices

Series FT devices require:

- A one-to-one pin configuration of the communication cable using a DB9 connector at both ends. The cable (part #260102) is available from Kurz Instruments.
- One RS-232C communication port on the computer or a USB-to-RS-232C adapter for the computer.

Series 2440 Models

Series 2440 models require:

- A one-to-one pin configuration of the communication cable using a DB9 connector at both ends. The cable (part #260102) is available from Kurz Instruments.
- One RS-232C communication port on the computer or a USB-to-RS-232C adapter for the computer.
- An available I/O adapter board. The I/O adapter board (part #260106 and #420334) for the Series 2440 is available from Kurz Instruments.

Series 155 Mass Flow Computer

KzComm can communicate with all Series 155 Mass Flow Computer for reporting purposes. KzComm provides full upload/download support with Series 155 devices using KAS 6.81 firmware. Series 155 devices using firmware older than KAS 6.81 have read-only capability of the configuration file; configuration data cannot be uploaded. KzComm does not support pass-through commands for reconfiguring devices connected to the Series 155.

Series 155 models require one RS-232C communication port on the computer or a USB-to-RS-232C adapter for the computer.

Table 1-1. Kurz 155-Compatible Product Lines

Kurz B-Series Product Line		
Kurz 410FTB	Kurz 454PFTB	Kurz 534FTB
Kurz 454FTB	Kurz 504FTB	Kurz K-BAR 2000B
Kurz 454FTB-WGF	Kurz 524FTB-UHP	

Kurz FT-Series and Legacy Product Lines		
Kurz 220	Kurz 504FT	Kurz 542
Kurz 410	Kurz 500	Kurz 550E
Kurz 410FT	Kurz 510	Kurz 730
Kurz 420	Kurz 510FT	Kurz K-BAR 16
Kurz 452	Kurz 522-UHP	Kurz K-BAR 24
Kurz 454FT	Kurz 524FT-UHP	Kurz K-BAR 2000
Kurz 502		

Software Requirements

KzComm release 3.04 and earlier support Windows XP and Windows Vista.
KzComm and KzComm Read-Only release 3.10 and later support Windows 7, 8, and 10.
All platforms require up-to-date service packs.

KzComm and KzComm Read-Only provide the following features for B-Series devices:

Feature	KzComm	KzComm Read-Only
Uploading configuration file	●	
Downloading configuration file	●	●
Printing configuration file	●	●
Extracting internal log files for min/max, event, and trend data	●	●
Loading sensor data for flow calibration and temperature compensation parameters	●	
Basic meter configuration changes either online or offline	●	

KzComm Read-Only is designed to eliminate the possibility of erroneous changes to the flow meter configuration. The download file for KzComm Read-Only includes “ReadOnly” in the filename, and the application includes “Read-Only” in the title bar.

Note On Windows Vista, downloading the Trend Log has infrequently caused the operating system to freeze (no screen activity). Restart the computer as described in your computer hardware manual.

Basic computer knowledge is necessary for copying and moving files, navigating file structures and identifying file types, and installing applications. You will need a decompression utility to extract files from compressed file packages.

The Kurz USB device driver or FTDI USB device driver must be installed before attempting to connect a computer with a B-Series device via a USB cable. Both drivers are available during the KzComm installation, on the Kurz customer CD in the USB Device Driver folder, and on the Kurz website (KurzInstruments.com). The FTDI USB driver is a 64-bit compatible virtual COM port (VCP) driver available from the FTDI Chip website (ftdichip.com).

Chapter 2

Installing KzComm

Overview

This chapter provides step-by-step instructions for installing KzComm and Tera Term. It also provides information for configuring and identifying the communication port so that KzComm can communication with Kurz devices.

KzComm and Tera Term each have capabilities; however, Tera Term functionality mimics the flow meter keypad:

Capability	KzComm	Tera Term
Uploading and downloading configuration file	●	● (complex process)
Printing configuration file	●	
Extracting internal log files for min/max, event, and trend data	●	
Loading sensor data for flow calibration and temperature compensation parameters	●	
Basic meter configuration changes either online or offline	●	● (mimics keypad, online only)
Supports quick setup	● (via wizard)	● (mimics keypad)
Change flow calibration for changing gas mixes	●	

Installing KzComm

Note The download file for KzComm Read-Only includes “ReadOnly” in the filename.

Download the current KzComm version from the Kurz website:

1> Click **Support**.

2> Click **Software**.

3> In the KzComm section, click **KzComm Download**.

4> Save the file to your computer.

5> After the download is complete, open the **KzComm** zip file (the version number is included in the filename) and extract the contents.

6> Start the installation by double-clicking the **setup.exe** file.

7> If you receive a security warning, click **Run**.

8> The installation wizard starts with the welcome message. Click **Next**.

The End User License Agreement dialog box appears.

9> Check to accept the agreement and click **Next**.

The Destination Folder dialog box appears.

10> You should accept the default (Program Files\Kurz Instruments\KzComm) unless you are familiar with the Windows folder structure. The Program Files folder appears as Program Files(x86) on Windows 64-bit systems. Click **Next**.

The Supplemental Program dialog box appears.

11> If you are going to communicate with a flow meter using a USB cable, you must include the Kurz or FTDI USB driver. Install the Tera Term terminal emulator if your environment allows you to work remotely. Click **Next**.

See “USB Drivers” on page 2-5 for USB requirements.

12> The Ready To Install dialog box appears. Click **Install**.

A installation progress meter appears.

13> The Completed dialog box appears. Click **Finish**.

If you selected to install the Kurz USB driver, the FTDI USB driver, or Tera Term, the installer for that component appears. All installers appear on the next page.

A **KzComm** icon and **KzComm Data** icon appear on the desktop. All KzComm data is automatically stored in the Windows default applications data folder.

- Windows XP default:
  C:\Documents and Settings\All Users\Application Data\Kurz Instruments\KzComm
- Windows Vista and Windows 7, 8, and 10 default:
  C:\Program Data\Kurz Instruments\KzComm

Installing Tera Term

If you selected to install Tera Term, the installer automatically starts:

1> The installation wizard starts with the welcome message. Click **Next**.

The End User License Agreement dialog box appears.

2> Check to accept the agreement and click **Next**.

The Destination Folder dialog box appears.

3> You should accept the default (Program Files\TeraTerm) unless you are familiar with the Windows folder structure. Click **Next**.

The Select Components dialog box appears. The installation options Standard, Full, Compact, and Custom.

4> Select **Compact installation** from the installation type drop-down list. Click **Next**.

5> The Select Language dialog box appears

6> Choose the appropriate language. Click **Next**.

The Start Menu dialog box appears.

7> Accept the default shortcut for the Start menu. Click **Next**.

The Additional Tasks dialog box appears.

8> Accept the default tasks. Click **Next**.

9> The Ready To Install dialog box appears. Click **Install**.

An installation progress meter appears.

10> The Completed dialog box appears. Click **Finish**.

Installing the Kurz USB Driver

If you selected to install the Kurz USB driver, the installer automatically starts:

1> If prompted by the User Account Control to run the setup program, click **Yes** to allow the program to make changes.

2> If prompted to verify the installation, click **Install** to allow the program to make changes.

3> The Kurz USB driver is not Windows logo tested. If prompted, click **Continue Anyway**.

Installing the FTDI USB Driver

If you selected to install the FTDI USB driver, the installer automatically starts:

1> The FTDIChip CDM Drivers extraction wizard appears. Click **Extract**.

2> The installation wizard starts with the welcome message. Click **Next**.

The End User License Agreement dialog box appears.

3> Check to accept the agreement and click **Next**.

An installation meter appears.

4> The Completed dialog box appears. Click **Finish**.

USB Drivers

The Kurz USB device driver or FTDI USB device driver must be installed before attempting to connect a computer with a B-Series device via a USB cable. Both drivers are available during the KzComm installation, on the Kurz customer CD in the USB Device Driver folder, and on the Kurz website (KurzInstruments.com). The FTDI USB driver is a 64-bit compatible virtual COM port (VCP) driver available from the FTDI Chip website (ftdichip.com).

Refer to Appendix B, “USB Driver Installation,” for identifying and installing the correct USB driver.

Configuring KzComm

Note KzComm Read-Only includes “Read-Only” in the title bar.

Start KzComm by double-clicking its desktop icon or selecting **Start→All Programs→Kurz Instruments→KzComm**. The KzComm main window opens.

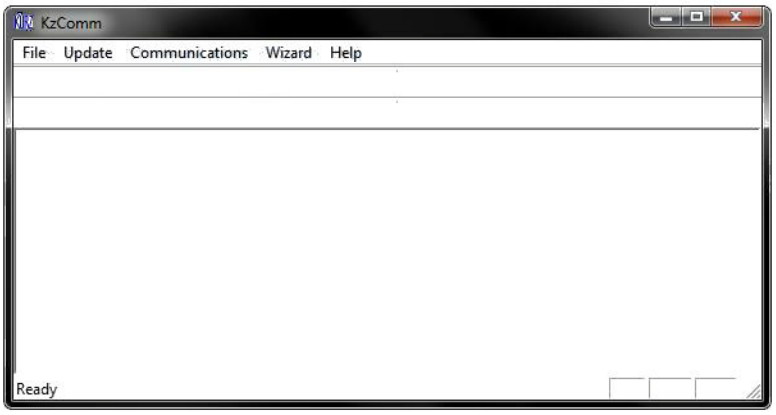


Figure 2-1. KzComm main window

Note The Kurz USB device driver or FTDI USB device driver must be installed before attempting to connect a computer with a B-Series device via a USB cable.

The Help menu options are as follows:

- **Help Topics** provides information about the application features and functions.
- **About KzComm** provides the application version.

Configuring the Communications Port

You must configure the communications parameters before the KzComm window can show the sensor serial number and the tag name for the connected device.

Note KzComm retains the settings from the last communications configuration and assumes the connection has not changed. If you use KzComm to communicate with multiple devices, Kurz recommends that you configure or verify the Communications Setup each time to ensure you are connecting to the correct device.

To configure the KzComm communications port:

1> Select **Communications→Configure**.

The Communication Setup dialog box appears.

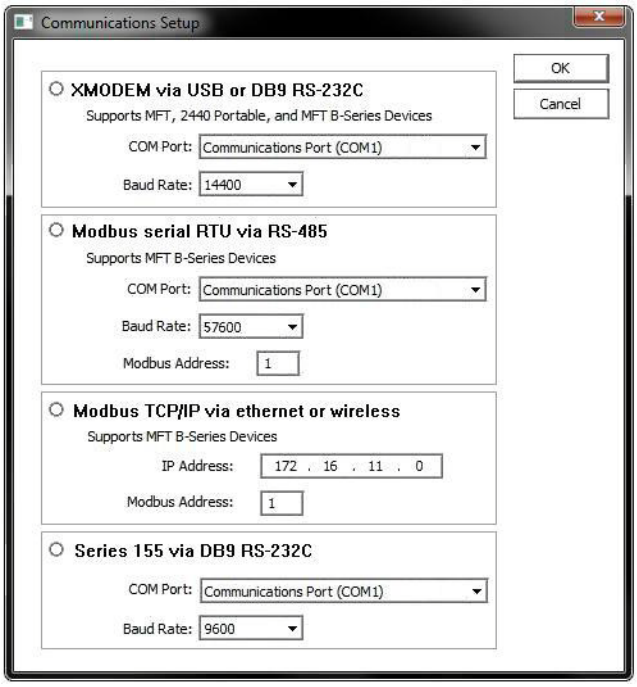


Figure 2-2. Communications Setup dialog box

2> Click the radio button next to the required communications protocol and set the parameters as described on page 2-7.

3> Click **OK**.

KzComm retrieves and displays the serial number and tag name for B-Series devices with firmware 1.05 or newer. The serial number and tag name do not appear for other Kurz devices.

XMODEM via USB or DB9 RS-232C

For XMODEM via a USB or DB9 RS-232 cable connection, COM port numbers and available COM port options are based on hardware and software configuration.

- A communications port option appears only when there is a physical port or a hardware device is attached to the computer and a device driver identifies it as a COM port.
- The **Kurz USB-HID -> COM** device option appears only if you installed the Kurz USB driver and the computer is connected to a B-Series device with a barcode ID starting with an A or B, or is less than C51937.

See “Identifying the COM Port” on page 2-8 for additional information.

Note If a USB-to-RS-232 or USB-to-RS-485 adapter is used then it will appear as a COM port.

The baud rate options are:

4800	19200
9600	38400
14400	57600

Note B-Series devices support only 9600 baud for the XMODEM protocol.

Modbus Serial RTU via RS-485

For Modbus Serial RTU, the COM port numbers and available COM port options are based on hardware and software configuration. You must use a USB-to-RS-485 converter to communicate via Modbus. A communications port option appears only when there is a physical port or a hardware device is attached to the computer and a device driver identifies it as a COM port. Refer to your converter documentation for COM port identification information. See “Identifying the COM Port” on page 2-8 for additional information.

The baud rate options are:

9600	38400
14400	57600
19200	

The Modbus address default is 1 (except for the Kurz K-BAR multipoint system).

Note The B-Series Modbus setup for ASCII transmission framing is not supported by KzComm. If KzComm is to be used over Modbus, RTU transmission framing must be used.

Modbus TCP/IP via Ethernet or Wireless

For Modbus TCP/IP, enter the IP address of the Modbus TCP/IP device and the Modbus address of the device with which to communicate.

Series 155 via DB9 RS-232C

For Series 155 communications, the COM port numbers and available COM port options are based on hardware and software configuration. A communications port option appears only when there is a physical port or a hardware device is attached to the computer and a device driver identifies it as a COM port. See “Identifying the COM Port” for additional information.

The baud rate options are:

1200
9600

Note KzComm can fully communicate with Series 155 models using KAS 6.81 firmware. KzComm can only read the configuration files from Series 155 models with KAS 6.41 and 6.60. Older KAS firmware versions are not supported.

Identifying the COM Port

If the drop-down list for the COM Port field does not provide an identifiable name, open Windows Device Manager. You can do this by using one of the following methods:

- Select **Control Panel→Device Manager**.
- Open the Windows Computer Management window and click **Device Manager**.
- For Windows XP, choose **Start→Run**, type **devmgmt.msc** in the Open field of the Run dialog box, and press **Enter**.
- For Windows 7 and Windows 8, choose **Start** and type **Device Manager** in the search field. You can select it when it appears as an option.

In the Device Manager window:

1> Expand **Ports (COM & LPT)**.

If you installed the Kurz USB driver and a B-Series device with a barcode lower than C51938 is currently connected, it will be labeled as **Kurz USB-HID -> COM device**.

If you installed the FTDI USB driver and a B-Series device with a barcode C51938 or higher is currently connected, it will be labeled as **USB Serial Port (COM#)**.

If a USB-to-RS-485 adapter is used, its name may reference the manufacturer.

2> To verify the port number, unplug the USB connector, and then plug it back in.

The COM port entry that disappears and reappears is the port used for the Kurz device.

Configuring Tera Term

If you are using the Tera Term terminal emulator, the flow meter must be turned on and connected to the computer.

1> Double-click the **Tera Term** icon.

The New Connection dialog box appears.

2> Select the **Serial** radio button.

3> In the **Port** drop-down field, select the COM port associated with either the Kurz USB driver or the FTDI driver.

Tera Term automatically configures the COM port based on the Windows Device Manager setting for the COM port. If garbage characters appear in Tera Term window, the communication parameters must be corrected.

4> Select **Setup→Serial Port**.

The Serial Port Setup dialog box appears.

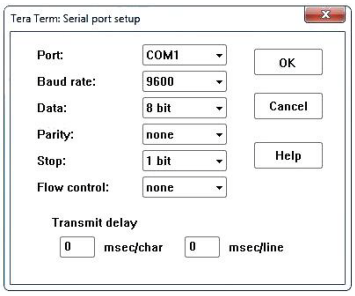


Figure 2-3. Tera Term serial port setup

5> Set the parameters as follows and then click **OK**:

- Baud rate – 9600
- Data bits – 8
- Parity – none
- Stop bits – 1
- Flow control – none

6> If garbage characters continue to appear, select **Control→Reset Port**.

When synchronized communication is established, the Tera Term window will echo all the information appearing on the B-Series display.

Note Terminal echo must be ON for using the computer keyboard to emulate the B-Series keypad. Terminal echo should be OFF if you are accessing the log files.

Table 2-1 describes the keyboard keys that are equivalent to the flow meter keypad.

Table 2-1. Keyboard-Keypad Equivalent Keys

Computer Keyboard	Flow Meter Keypad	Function
p	**P**	A lowercase P invokes Program mode. An access code is required. During data entry it allows you to skip over a field without entering anything.
d	**D**	A lowercase D invokes DIsplay mode. No access code is required.
l	**L**	A lowercase L invokes Log mode. No access code is required.
<Enter>	**E**	Pressing <Enter> invokes Extended Utilities mode. An access code is required. During data entry it accepts the data.
c	**C**	During data entry, a lowercase C clears the value. It also acknowledges an active system fault.
h	**H**	A lowercase H returns to Run mode or backs out of a menu.
+		The plus key (+) toggles terminal echo On or Off.
^	**^/ Yes**	Pressing Shift-6 scrolls forward in a selection list.
v	**v / No**	A lowercase V scrolls backward in a selection list.
–	**–**	A hyphen or minus key is used for numeric and text data.
.	**●**	A period or decimal is used in floating point and text data.
0-9	**0-9**	Number keys are used for numeric data and access codes.

Chapter 3

Using KzComm

Overview

This chapter provides information on KzComm settings options for uploading, downloading, viewing, and printing flow meter configuration files. It also provides information about the Min/Max Log file, the Event Log file, and the Trend Log file.

Note All examples use a simplified directory structure, such as Program Data\Kurz Instruments\KzComm. However, your directory structure will include a drive letter (such as C) and possibly other folder names, such as Program Files (x86) or custom locations.

The examples in this guide use a custom configuration. Output, fields, and buttons for your configuration will appear differently.

Buttons are greyed when connections are not established, devices are not properly configured, or all required field data has not been entered. The examples used in this guide show all buttons and fields active to improve readability and printing.

For B-Series devices, there are instructions for online and offline configuration setup.

Note Some features are disabled in KzComm Read-Only.

Starting KzComm

After setting the communications parameters, as specified in “Configuring the Communications Port,” KzComm shows the tag name and sensor serial number for the attached Kurz device in the main window, as shown in the Figure 3-1.

Note KzComm retrieves and displays the serial number and tag name for B-Series devices with firmware 1.05 or newer. The serial number and tag name do not appear for other Kurz devices.

Figure 3-1. KzComm Window after configuration

KzComm retains the settings from the last communications configuration and assumes the connection has not changed. If you use KzComm to communicate with multiple devices, Kurz recommends that you configure or verify the Communications Setup each time to ensure you are connecting to the correct device.

Downloading Files

Download (Target to PC) allows you to download the files from Kurz devices.
Select **File→Download (Target to PC)** to open the Download (Target to PC) dialog box.

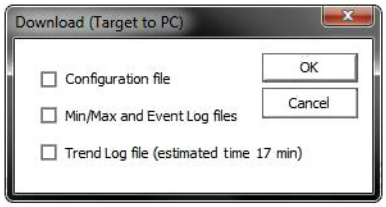


Figure 3-2. Download (Target to PC) dialog box

Note Download options are based on the device, device firmware, and the communications method you selected. The Min/Max, Event, and Trend log files are not supported with Series FT, Series 155, and Series 2440 devices or with B-Series devices using firmware 1.04 and earlier.

The Min/Max Log, Event Log, and Trend Log files cannot be downloaded until the device has completed boot-up mode.

Downloading a file automatically opens the file with the default application for that file type. All log files are in a comma-separated value (**.**csv) format and the configuration file is in a readable text (**.**txt) format.

Downloading a Configuration File

Downloading a device configuration file allows you to:

- Maintain a backup configuration file of the unit setup for maintenance purposes.
- Convert the configuration file to a readable text file so that you can review the device setup.

To download a configuration file:

1> Check the **Configuration file** checkbox in the Download (Target to PC) dialog box and click **OK**.

2> A navigation window opens where you specify the filename and file type. A default filename appears (that can include the sensor serial number if preconfigured). You should accept the default file location (Program Data\Kurz Instruments\KzComm) and default configuration file (**.**cf) type. Click **Save**.

A viewable text version of the configuration file automatically opens.

Note If an error occurs, click **OK** in the message box and retry downloading the configuration file.

Downloading Min/Max Log and Event Log Files

The Min/Max Log file is used to determine the range of the flow rate, temperature, and electronics temperature for the process being measured by the B-Series device. The output file contains 20 records (up to one entry per day per category) for each of the following events:

- Minimum and maximum flow rate
- Minimum and maximum process temperature
- Minimum and maximum electronics temperature

The Event Log file contains up to 160 of the most recent events determined and reported by the B-Series device.

To download the Min/Max Log and Event Log files:

1> Check the **Min/Max and Event Log files** checkbox in the Download (Target to PC) dialog box and click **OK**.

2> A navigation window opens where you specify the filename and file type. A default filename appears (that can include the sensor serial number if preconfigured) appended with **minmax**, followed by another filename appended with **event**. You should accept the default file location (ProgramData\Kurz Instruments\KzComm) and default file type (**.**csv). Click **Save**.

> **Note** If an error occurs, click **OK** and verify the device is not in Boot-Up mode. Windows uses WordPad as the default application for opening CSV files unless a spreadsheet application is installed.

A viewable version of the Min/Max Log and Event Log files automatically opens.

> **Note** If an error occurs, click **OK** and verify the device is not in boot-up mode.

Downloading the Trend Log File

Important ***The log data is in volatile memory. A power cycle will clear the Trend Log file.***

The Trend Log file contains 20,416 records. Each record contains the runtime, flow rate, and process temperature data taken every 10 seconds for approximately 2.3 days. When the Trend Log file is full, the oldest data is replaced with the newest data. The data shows how the process being measured by the Kurz device changes with time. The Trend Log file will contain details if an unusual event occurs with the process. Downloading the Trend Log file takes approximately 4 minutes using Modbus RTU at 38400 baud and approximately 17 minutes using the Xmodem protocol.

To download the Trend Log file:

1> Check the **Trend Log file** checkbox in the Download (Target to PC) dialog box and click **OK**.

2> A navigation window opens where you specify the filename and file type. A default filename appears (that can include the sensor serial number if preconfigured) appended with **trend**. You should accept the default file location (ProgramData\Kurz Instruments\KzComm) and default file type (**.**csv). Click **Save**.

Note If an error occurs, click **OK** and verify the device is not in boot-up mode. Windows uses WordPad as the default application for opening CSV files unless a spreadsheet application is installed.

A graph of the Trend Log file appears, as shown in the following example.

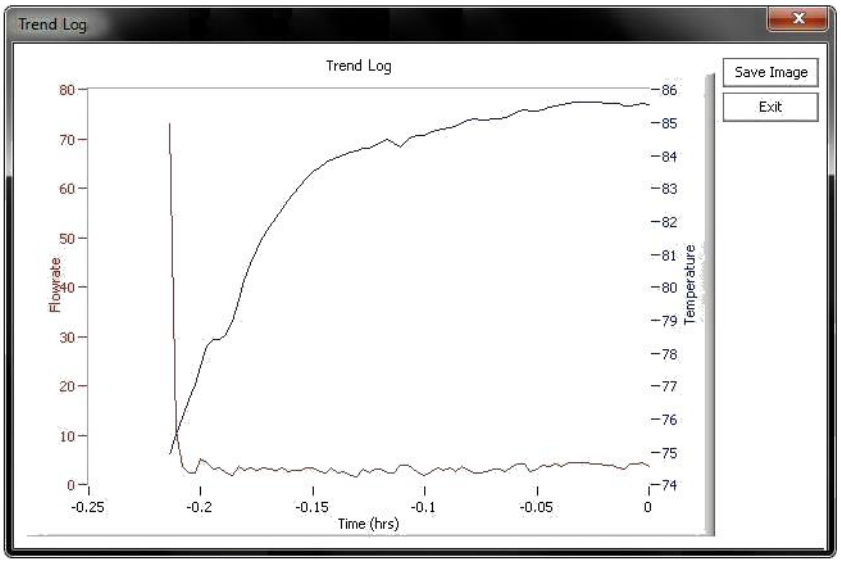


Figure 3-3. Trend Log file example

3> You can save the graph as a JPG image by clicking **Save Image**. The default filename appends “trend” to the filename.

Uploading a Configuration File

Note Uploading a configuration file is disabled in KzComm Read-Only.

To upload a configuration file:

1> Select **File→Upload (PC to Target)**.

2> A navigation window opens where you select the file containing the configuration information. The default file location is ProgramData\Kurz Instruments\KzComm. Click **Open**.

3> If an error occurs, click **OK** and repeat the steps for uploading a configuration file.

Creating a Readable Configuration File

Configuration files are in a binary format. Configuration files must be converted to a text format before they can be printed or read.

To create a readable configuration file:

1> Select **File→Create Printable File**.

2> A navigation window opens where you select the configuration file you want to read or print. The default file location is ProgramData\Kurz Instruments\KzComm. Click **Open**.

3> Another navigation window opens where you specify the output filename and file type. A default filename and default file type (**.**txt) appears with the default file location (ProgramData\Kurz Instruments\KzComm). You should accept the default file location and default file type. Click **Save**.

Viewing a Configuration File

Note The **View** option is disabled until you create a printable file.

Use a text editor (such as Notepad) to view the text version of the configuration file.
To view the configuration file:

1> Select **File→View**.

The default text editor opens and shows the current configuration file. (This is the file created by selecting **File→Create Printable File**).

If you want to open another converted configuration file:

a> Select **File→Create Printable File**, navigate to the location containing CF files, then select and open the file.

An option appears for naming the file.

b> Create a file name and click **Save**.

c> Select **File→View** to open the new file.

2> Close the text editor when finished.

Printing a Configuration File

Note The **Print** option is disabled until you create a printable file.

To print the configuration file:

1> Select **File→Print**.

The file is sent to the default printer.

2> If you want to use another printer, open the file in a text editor as described in "Viewing a Configuration File" and select **File→Print** from the text editor menu.

Updating the Flow Calibration Data

Important ***Updating flow calibration data should only occur with approval from Kurz Technical Support.***

Note Updating the flow calibration data is disabled in KzComm Read-Only.

The flow calibration data can be updated for a B-Series device using a valid flow calibration data file. With a valid data file, you can update current calibration data, change the calibration data for different gases, or update Velocity Temperature Mapping (VTM) data.

Note This feature is not available for the Series 155.

To update the flow calibration data:

1> Select **Update→Flow Calibration Data**.

2> A navigation window opens where you select the flow calibration data file you want to use. The default file location is ProgramData\Kurz Instruments\KzComm. Click **Open**.

3> If an error occurs, click **OK** and repeat the steps for updating the flow calibration data.

Updating the Sensor Data

Important ***Updating sensor data should only occur with approval from Kurz Technical Support.***

Note Updating the sensor data is disabled in KzComm Read-Only.

The sensor data can be updated for a B-Series device using a valid sensor data file. With a valid data file, you can update sensor-specific resistance temperature device (RTD) calibration coefficients.

Note This feature is not available for the Series FT, Series 155, or Series 2440.

To update the temperature compensation data:

1> Select **Update→Sensor Data**.

2> A navigation window opens where you select the sensor data file you want to use. The default file location is ProgramData\Kurz Instruments\KzComm. Click **Open**.

3> If an error occurs, click **OK** and repeat the steps for updating the temperature compensation data.

B-Series Device Setup

The B-Series setup in the **Wizard** menu is used to configure only a B-Series device with 2.00 or newer firmware.

Note An error message appears if you attempt to use the setup with any other devices.

The examples in this guide use a custom configuration for improved readability and printing. Output, fields, and buttons for your configuration will appear differently. Unavailable options are greyed until connection or configuration requirements are established.

Reconfiguring the device setup via the Wizard feature is disabled in KzComm Read-Only.

1> Select **Wizard→B-Series Setup**.

The Connection Type dialog box appears.

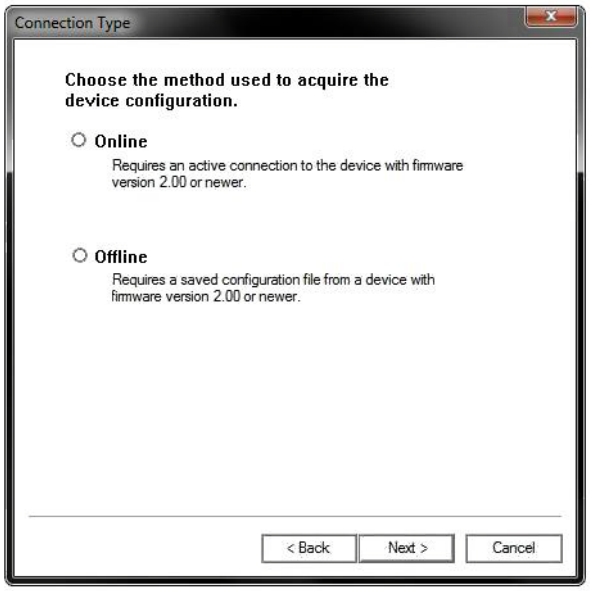


Figure 3-4. Connection Type dialog box

2> Choose **Online** if you are currently connected to the B-Series device or **Offline** if you will be using a configuration file on your computer.

Online B-Series Device Setup

Choose **Online** if you are currently connected to the B-Series device.

1> Select **Online** and click **Next**.

The Communications Setup dialog box appears and prompts you for the connection type.

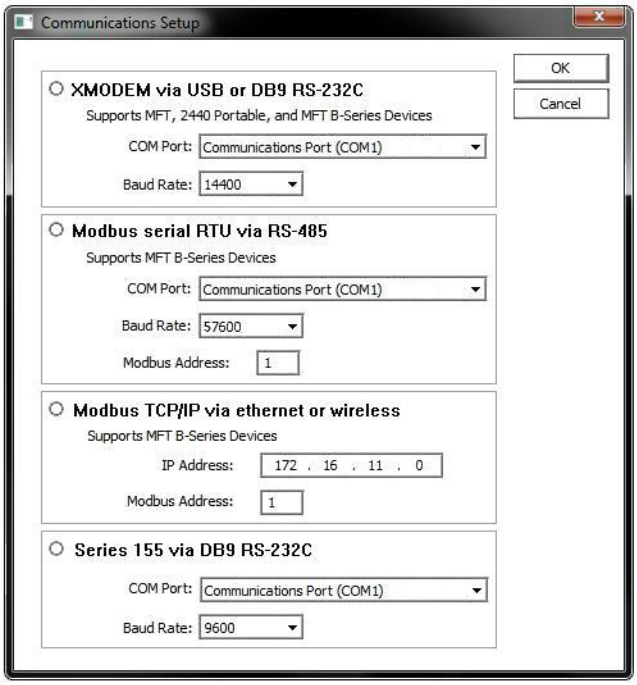


Figure 3-5. Communications Setup dialog box

2> Select the connection type and click **OK**.

A series of Upload/Download status messages appear followed by the B-Series Information dialog box.

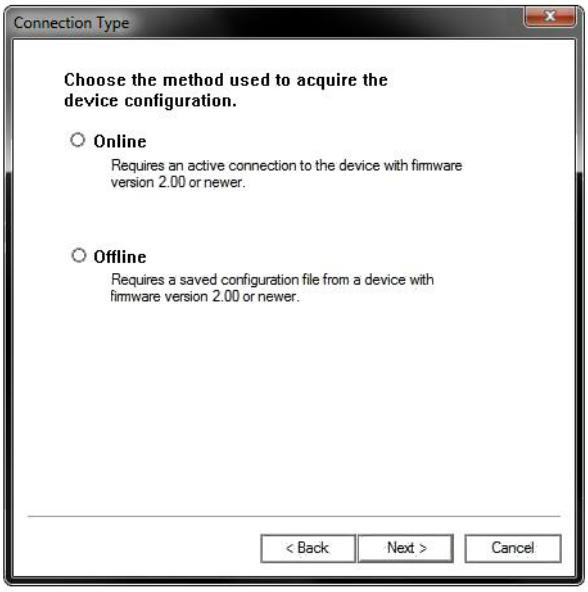


Figure 3-6. Connection Type dialog box

The process continues similar to the offline setup. Continue to page 3-13 for the “Initial Setup for First Time Use” and page 3-23 for “Flow Area Configuration.”

Offline B-Series Device Setup

Choose **Offline** if you are not connected to the B-Series device.

1> Select **Offline** and click **Next**.

2> A navigation window opens where you select the configuration file you want to use. The default file location is ProgramData\Kurz Instruments\KzComm. Click **Open**.

The B-Series Information dialog box appears.

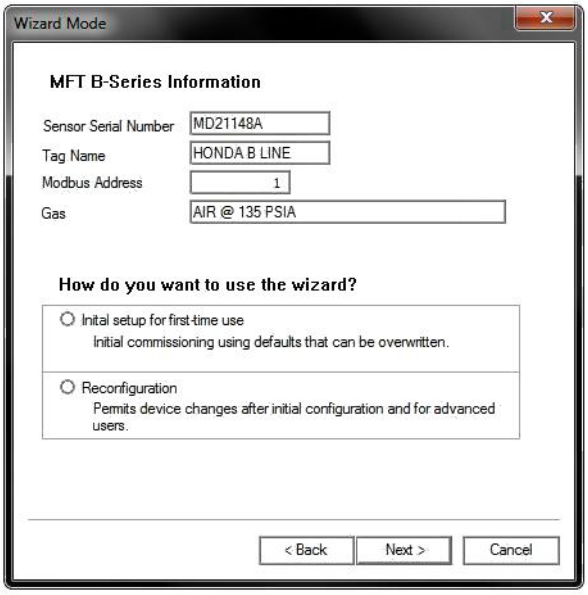


Figure 3-7. B-Series Information dialog box

The sensor serial number, tag name, modbus address, and gas for the device appear for verification purposes.

Choose the mode of configuration:

- Initial Setup for First Time Use

  Used the first time you are setting up the device. Defaults are used for initial numbers, but these can be overwritten.

- Reconfiguration

  Used to make device changes after initial configuration and for more advanced users.

Initial Setup for First Time Use

After you have chosen the configuration mode, click **Next**.

You have the option for measuring point velocity, volumetric flow rate, or mass rate. Appendix A provides field values for point velocity, volumetric flow rate, and mass rate.

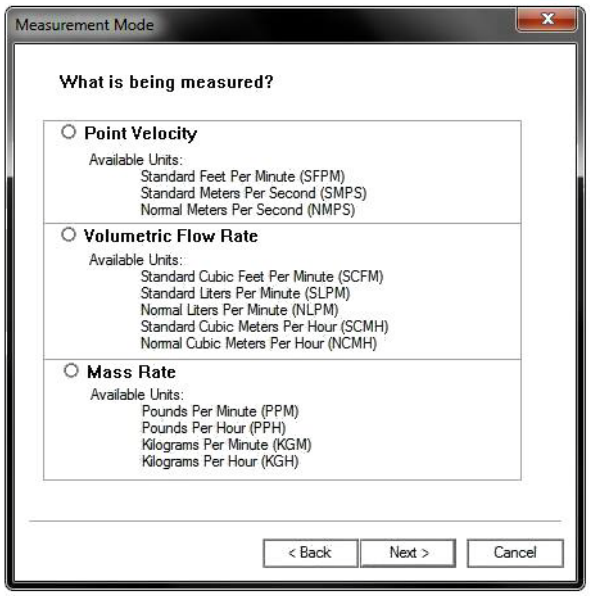


Figure 3-8. Measurement Mode dialog box

Measuring Point Velocity

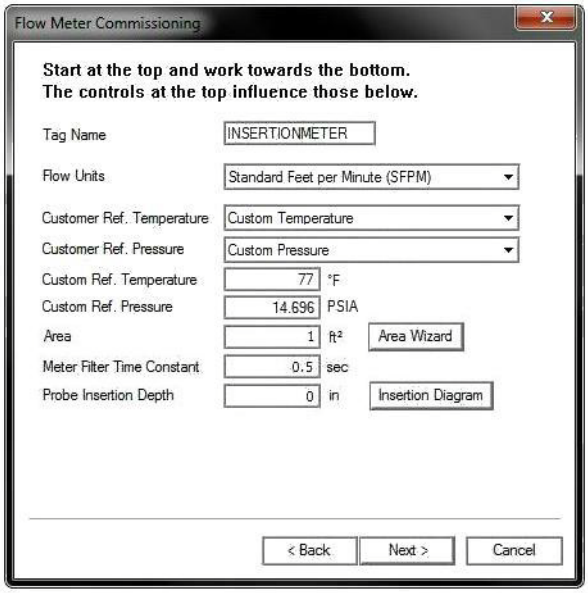
Point velocity is measured in the following units:

- Standard Feet per Minute (SFPM)
- Normal Meters per Second (NMPS)
- Standard Meters per Second (SMPS)

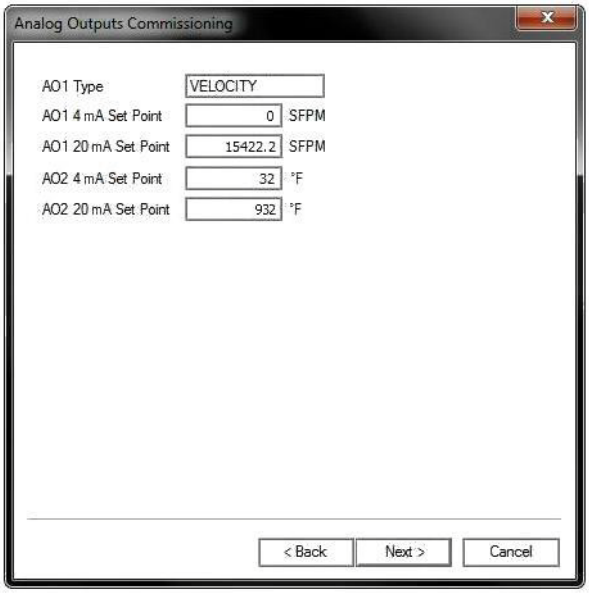
The availability and appearance of additional options are based on the flow units. Additional fields appear if you customize temperature or pressure. Custom values revert to standard values if the number is approximately a standard value.

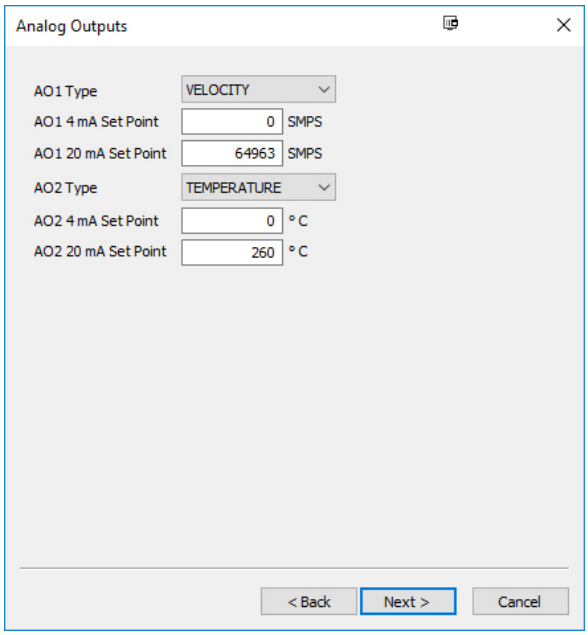
The Area and Probe Insertion Depth fields appear only with insertion meters. Refer to “Flow Area Configuration” on page 3-23 and “Probe Insertion Configuration” on page 3-24 for information on these fields.

“Measuring Point Velocity” on page A-2 provides field values for point velocity.



The second analog output (AO2) appears only with the HART option when the AO2 feature has been purchased. “Analog Outputs” on page A-5 provides field values for analog outputs.

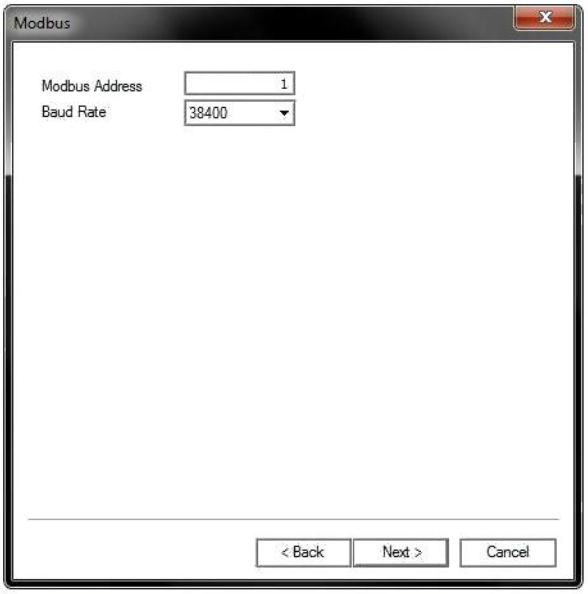




The options in the dialog box are slightly different, as shown in this example, if the **Reconfiguration** option is selected in the B-Series Information dialog box shown in Figure 3-7.

The measurement units will be specific to your setup. Flow meters with HART communication come with one analog output (AO) unless the second AO feature is purchased.

The Modbus address defines a specific device using a value from 1 to 247. For the B-Series, use option 19 from the Display menu to find the Modbus address assigned to a device. The baud rate determines the rate of data transmission to each specified device. Slower baud rates are frequently used for longer distances and noisier communication lines.



Measuring Volumetric Flow Rate

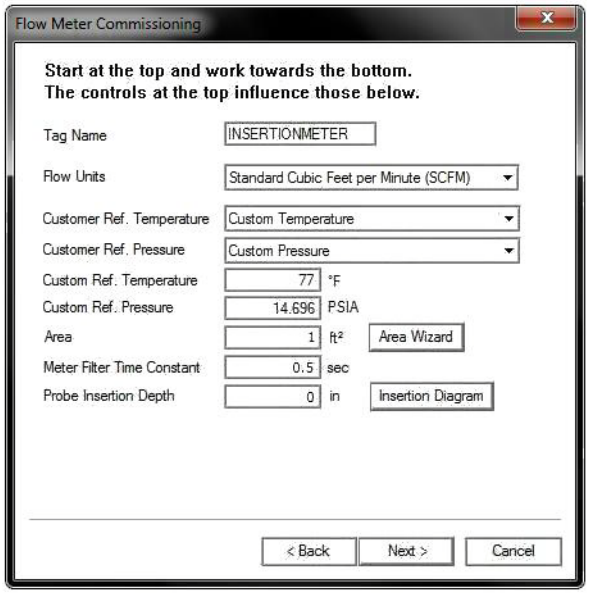
Volumetric rate is measured in the following units:

- Standard Cubic Feet per Minute (SCFM)
- Standard Cubic Feet per Hour (SCFH)
- Normal Liters per Minute (NLPM)
- Normal Cubic Meters per Hour (NCMH)
- Standard Liters per Minute (SLPM)
- Standard Cubic Meters per Hour (SCMH)

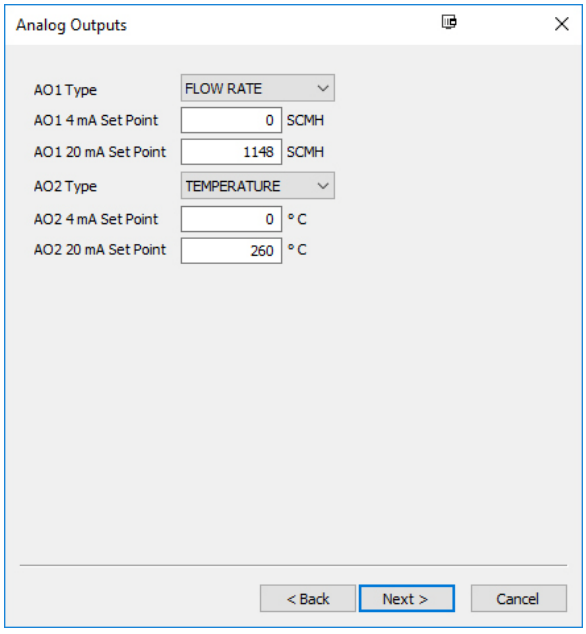
The availability and appearance of additional options are based on the flow units. Additional fields appear if you customize temperature or pressure. Custom values revert to standard values if the number is approximately a standard value.

The Area and Probe Insertion Depth fields appear only with insertion meters. Refer to “Flow Area Configuration” on page 3-23 and “Probe Insertion Configuration” on page 3-24 for information on these fields.

“Measuring Volumetric Flow Rate” on page A-3 provides field values for volumetric flow rate.



The second analog output (AO2) appears only with the HART option when the AO2 feature has been purchased. “Analog Outputs” on page A-5 provides field values for analog outputs.



The options in the dialog box are slightly different, as shown in this example, if the **Reconfiguration** option is selected in the B-Series Information dialog box shown in Figure 3-7.

The measurement units will be specific to your setup. Flow meters with HART communication come with one analog output (AO) unless the second AO feature is purchased

The Modbus address defines a specific device using a value from 1 to 247. For the B-Series, use option 19 from the Display menu to find the Modbus address assigned to a device. The baud rate determines the rate of data transmission to each specified device. Slower baud rates are frequently used for longer distances and noisier communication lines.

Measuring Mass Rate

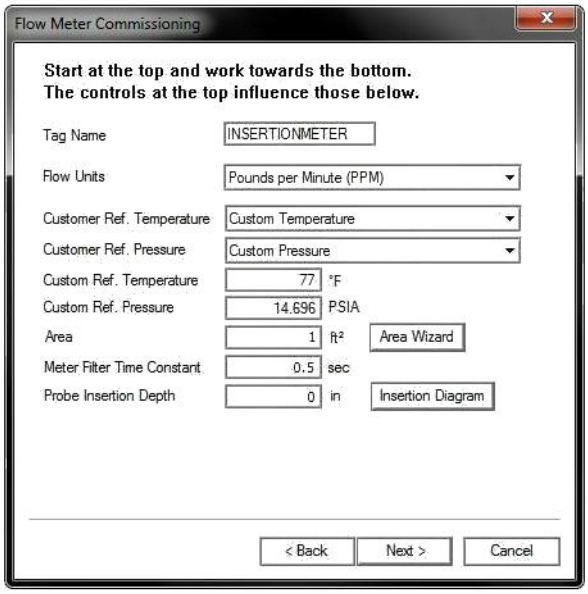
Mass rate is measured in the following units:

- Pounds per Minute (PPM)
- Pounds per Hour (PPH)
- Kilograms per Minute (KPM)
- Kilograms per Hour (KPH)

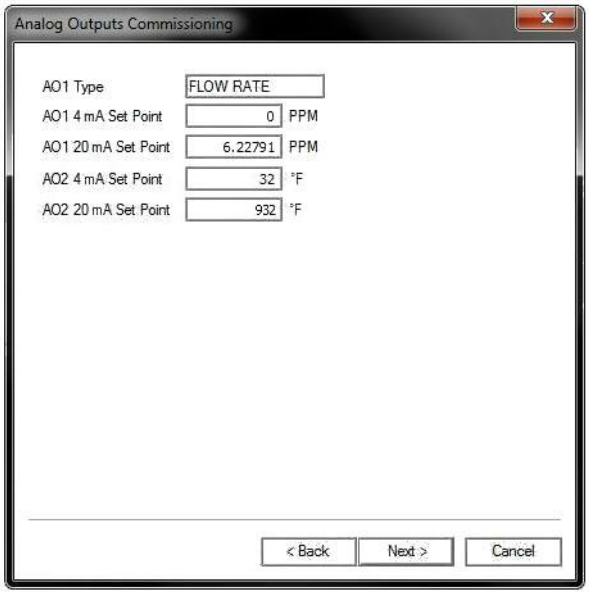
The availability and appearance of additional options are based on the flow units. Additional fields appear if you customize temperature or pressure. Custom values revert to standard values if the number is approximately a standard value.

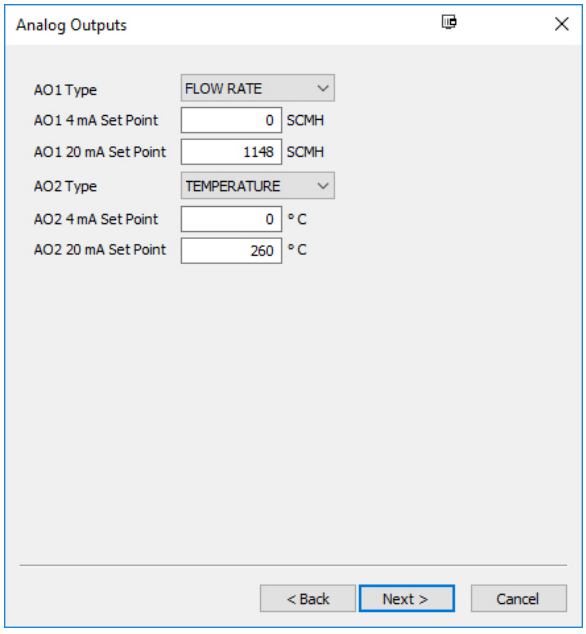
The Area and Probe Insertion Depth fields appear only with insertion meters. Refer to “Flow Area Configuration” on page 3-23 and “Probe Insertion Configuration” on page 3-24 for information on these fields.

“Measuring Mass Rate” on page A-4 provides field values for mass rate.



The second analog output (AO2) appears only with the HART option when the AO2 feature has been purchased. “Analog Outputs” on page A-5 provides field values for analog outputs.

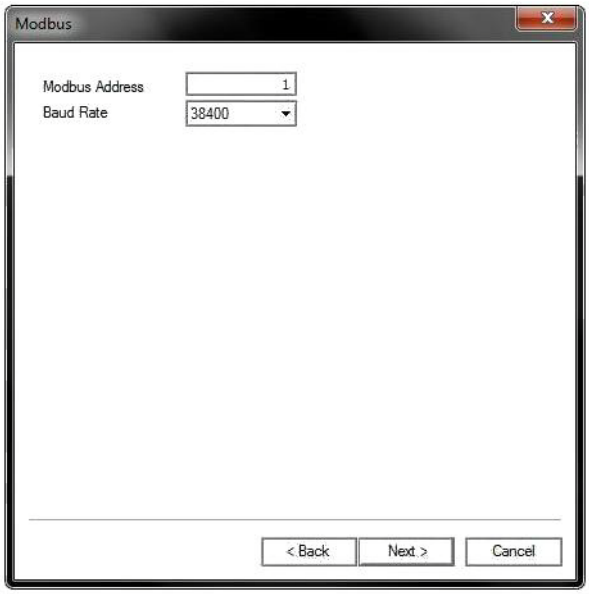




The options in the dialog box are slightly different, as shown in this example, if the **Reconfiguration** option is selected in the B-Series Information dialog box shown in Figure 3-7.

The measurement units will be specific to your setup. Flow meters with HART communication come with one analog output (AO) unless the second AO feature is purchased.

The Modbus address defines a specific device using a value from 1 to 247. For the B-Series, use option 19 from the Display menu to find the Modbus address assigned to a device. The baud rate determines the rate of data transmission to each specified device. Slower baud rates are frequently used for longer distances and noisier communication lines.“Modbus Address” on page A-5 provides field values for Modbus options.



Flow Area Configuration

The Area field and Area Wizard button appear only with insertion meters.

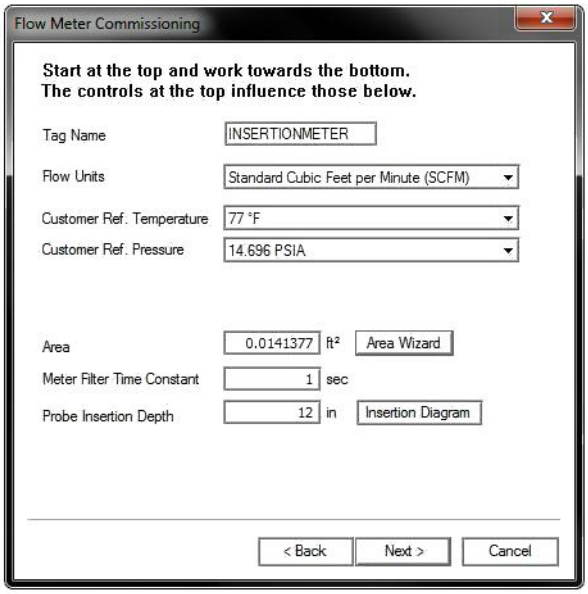


Figure 3-9. Flow Meter Commissioning dialog box

The Area Wizard button simplifies the entry of the Area by allowing you to specify the circular dimensions (custom pipe), rectangular dimensions (duct), or nominal pipe size (NPS) dimensions. The measurement units are based on the specified flow units (either inches or millimeters).

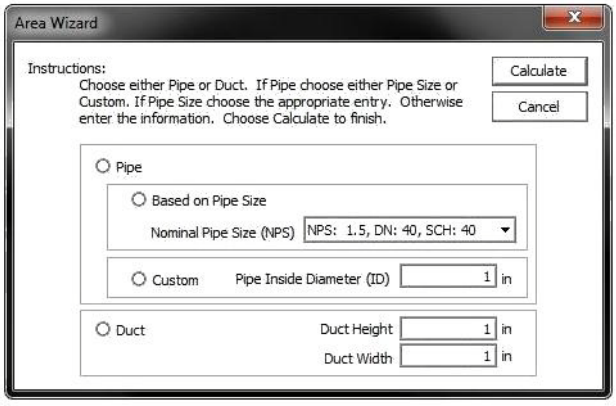


Figure 3-10. Area Wizard dialog box

The NPS options are as follows:

NPS: 1.5, DN: 40, SCH 40	NPS: 5.0, DN: 125, SCH 40	NPS: 14.0, DN: 350, SCH 40
NPS: 1.5, DN: 40, SCH 80	NPS: 5.0, DN: 125, SCH 80	NPS: 14.0, DN: 350, SCH 80
NPS: 2.0, DN: 50, SCH 40	NPS: 6.0, DN: 150, SCH 40	NPS: 16.0, DN: 400, SCH 20
NPS: 2.0, DN: 50, SCH 80	NPS: 6.0, DN: 150, SCH 80	NPS: 16.0, DN: 400, SCH 40
NPS: 2.5, DN: 65, SCH 40	NPS: 8.0, DN: 200, SCH 20	NPS: 16.0, DN: 400, SCH 80
NPS: 2.5, DN: 65, SCH 80	NPS: 8.0, DN: 200, SCH 40	NPS: 18.0, DN: 450, SCH 20
NPS: 3.0, DN: 80, SCH 40	NPS: 8.0, DN: 200, SCH 80	NPS: 18.0, DN: 450, SCH 40
NPS: 3.0, DN: 80, SCH 80	NPS: 10.0, DN: 250, SCH 20	NPS: 18.0, DN: 450, SCH 80
NPS: 3.5, DN: 90, SCH 40	NPS: 10.0, DN: 250, SCH 40	NPS: 20.0, DN: 500, SCH 20
NPS: 3.5, DN: 90, SCH 80	NPS: 10.0, DN: 250, SCH 80	NPS: 20.0, DN: 500, SCH 40
NPS: 4.0, DN: 100, SCH 40	NPS: 12.0, DN: 300, SCH 20	NPS: 20.0, DN: 500, SCH 80
NPS: 4.0, DN: 100, SCH 80	NPS: 12.0, DN: 300, SCH 40	NPS: 24.0, DN: 600, SCH 20
NPS: 4.5, DN: 115, SCH 40	NPS: 12.0, DN: 300, SCH 80	NPS: 24.0, DN: 600, SCH 40
NPS: 4.5, DN: 115, SCH 80	NPS: 14.0, DN: 350, SCH 20	NPS: 24.0, DN: 600, SCH 80

Probe Insertion Configuration

The Probe Insertion Depth field and Insertion Diagram button appear only for insertion meters. The Insertion Depth diagram shows how to measure the probe insertion depth.

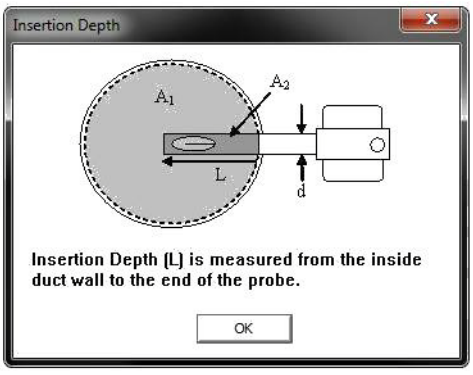


Figure 3-11. Insertion Depth diagram

Summary

The Summary dialog box provides all the measurement parameters with all changes highlighted in yellow. By hovering the cursor over a changed field, a pop-up shows the original value.

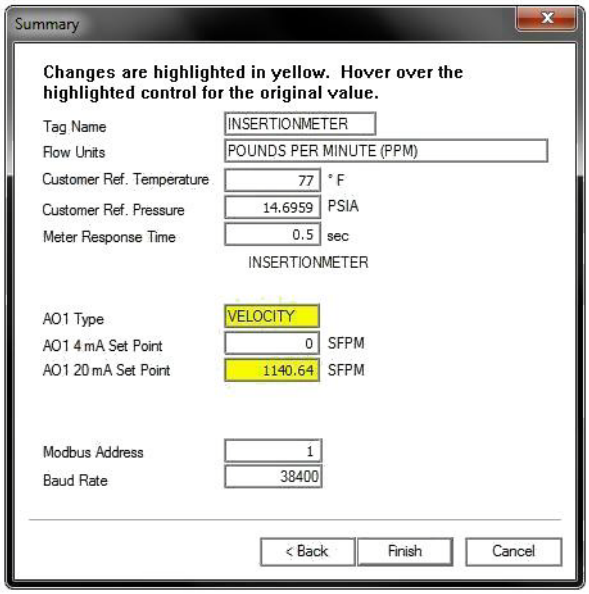


Figure 3-12. Summary dialog box with changes

The **Finish** button is disabled if no changes have been made.

If you chose to acquire the configuration data in Online mode, you are prompted to save the configuration file and upload the changed configuration to the attached B-Series device.

Figure 3-13. Online Options dialog box

If you select **Save Config File**, a navigation window opens where you specify the output filename and file type. A default filename and default file type (**.**cf) appears with the default file location (ProgramData\Kurz Instruments\KzComm). You should accept the default file location and default file type. Click **Save**.

Chapter 4

Troubleshooting

Overview

This chapter provides known issues and their resolution. Contact Kurz customer service for additional assistance. Contact information is available on the back of the cover page of this guide.

Note Uploading a configuration file, updating the flow calibration data, updating the sensor data, and reconfiguring the device setup are disabled in KzComm Read-Only.

Communications Cannot Be Established

For any invalid communications setup, the following error message appears:

> "Unable to communicate with Kurz Instruments device. Possible reasons include: Invalid communications setup."
>
> "Invalid communications setup. Unable to find device."

KzComm retains the settings from the last communications configuration and assumes the connection has not changed. If you use KzComm to communicate with multiple devices, Kurz recommends that you configure or verify the Communications Setup each time to ensure you are connecting to the correct device.

Startup Identification Is Incorrect

KzComm retrieves and displays the serial number and tag name for B-Series devices with firmware 1.05 or newer. The serial number and tag name do not appear for other Kurz devices. One of the following messages appears:

> "MFT B-Series with 1.04 or older firmware does not support displaying sensor serial and tag name via XMODEM."
>
> "MFT\PTA devices do not support displaying sensor serial and tag name."
>
> "Series 155 does not support displaying sensor serial and tag name."

Unable to Download Log Files

Download options are based on the device, device firmware, and the communications method you select. Not all download options may be available for your device.

- When connecting with Xmodem, downloading the Min/Max Log, Event Log, and Trend Log files requires a B-Series device using firmware 1.05 or newer.
- When connecting with Modbus, downloading the Min/Max Log and Event Log files requires a B-Series device using firmware 1.00 or newer.
- When connecting with Modbus, downloading the Trend Log files requires a B-Series device using firmware 1.05 or newer.

Operating System Freezes

On Windows Vista, downloading the trend log has infrequently caused the operating system to freeze (no screen activity). Restart the computer as described in your computer hardware manual.

Resetting the Xmodem COM Port

This section describes how to reset the Xmodem COM port when errors occur. You can also refer to “Using Tera Term Terminal Emulator” to help resolve configuration issues.

This function is used when a terminal emulator application is returning garbage characters, or when KzComm is unable to communicate with a B-Series device using the XMODEM protocol and the setup and connections are valid.

Note This feature is disabled if XMODEM is not the chosen communications protocol.

It is common to incorrectly exit a terminal emulator, improperly disconnect a flow meter from a computer, or simply power-down a flow meter while it is actively communicating with a computer. Resetting the communications port typically corrects the communications problem between the computer and its COM port.

Important ***Always exit/close a terminal emulator before disconnecting or powering down a flow meter.***

KzComm Showing Errors with Valid B-Series Device

Use the Reset Xmodem COM port feature when KzComm returns a warning or indicates that communications are invalid when you are using a valid setup to a B-Series device.

1> Verify connection between computer and B-Series device using a proper USB cable, ensure power is supplied to unit, and confirm the COM port is enumerated and the communications configuration is valid.

2> Open KzComm and select **Communications→Reset Xmodem COM Port** to reset the Xmodem COM port.

3> Repeat the previous command.

Terminal Emulator Returning Garbage

Use the Reset Xmodem COM port feature when the terminal emulator is returning garbage, and the emulator does not provide the option to reset the port.

1> Disconnect or close the terminal emulator application.

2> Open KzComm and select **Communications→Reset Xmodem COM Port** to reset the Xmodem COM port.

3> Open the terminal emulator application, which should now show valid data.

The Tera Term emulator also supports the reset option, as described in“Using Tera Term Terminal Emulator” on page 4-4.

Using Tera Term Terminal Emulator

This section describes how to setup the Tera Term terminal emulator when errors occur. You can also refer to “Resetting the Xmodem COM Port” to help resolve configuration issues.

> **Note** Always disconnect from the terminal before disconnecting or powering down the B-Series device.

1> Install Tera Term v4.65 (or later), and then open the application.

   You should allow the installer to create a shortcut on your desktop.

2> Connect to the COM port identified with the meter.

   Tera Term v4.65 (or later) supports connecting to COM1 through COM15.
   Tera Term v3.1.3 supports connecting to COM1 through COM4.

3> If garbage appears, use the Device Manager to change the COM port to a low number.

   Follow the steps for opening the Device Manager, as specified in “Identifying the COM Port” on page 2-8.

4> From the Tera Term window, choose **Control→Reset port**.

5> Save the setup by selecting **Setup→Save Setup.**

Examples Don’t Match

The examples in this guide use a custom configuration. Output, fields, and buttons for your configuration will appear differently.

Buttons are greyed when connections are not established, devices are not properly configured, or all required field data has not been entered. The examples used in this guide show all buttons and fields active to improve readability and printing.

Most images were captured on the Windows XP and Windows 7 platforms. The appearance of dialog boxes and windows for these platforms is different.

All examples use a simplified directory structure, such as Program Data\Kurz Instruments\KzComm. However, your directory structure will include a drive letter (such as C) and possibly other folder names, such as Program Files (x86) or custom locations.

B-Series Boot Mode

The B-Series device performs a boot (power-on) test to verify that configuration, sensor, and wiring settings are valid. During the boot test, the following information appears on the device display:

```
KURZ INSTRUMENTS
DISPLAY DRIVER 4.1
```

The device display or a terminal emulator will show that sensor testing is in-progress:

```
CHECKING TYPE OF
CONNECTED SENSOR
```

If an error message appears after the sensor testing then the unit is stuck in Boot mode due to a sensor mismatch, wiring, or other problem. At this point the B-Series device will not allow downloading the Min/Max Log, Event Log, and Trend Log files. To force the device to exit Boot mode, press the **C** key on the device keypad or through the terminal emulator and then disconnect from the terminal emulator.

Once Boot mode is complete the following information appears:

```
KURZ INSTRUMENTS
SERIES MFT-B
```

Followed by the final sensor test:

```
WAIT PERFORMING
SENSOR LEAK TEST
```

You can start downloading the Min/Max Log, Event Log, and Trend Log files.

KURZ INSTRUMENTS INC.

Appendix A

Configuration Fields

Overview

This appendix provides the field values for measuring point velocity, volumetric flow rate, and mass flow rate.

Measuring Point Velocity

The following tables describe the flow unit options:

- Standard Feet per Minute (SFPM)
- Normal Meters per Second (NMPS)
- Standard Meters per Second (SMPS)

Table A-1 describes the Flow Meter Commissioning point velocity field options.

Table A-1. Point Velocity Flow Rate Units

Field Name	Volumetric Flow Rate Units	Field Value
Customer Ref. Temperature	SFPM	32°F, 68°F, 77°F, Custom Temperature
	NMPS	0°C
	SMPS	0°C, 20°C, 25°C, Custom Temperature
Custom Ref. Temperature		A value from -250 to 250
Customer Ref. Pressure	SFPM	14.696 PSIA, Custom Pressure
	NMPS	101.325 kPa
	SMPS	101.325 kPa, Custom Pressure
Custom Pressure		A value from 10 to 1,000
Meter Filter Time Constant (sec)		A value from 0 to 600

Measuring Volumetric Flow Rate

The following tables describe the flow unit options:

- Standard Cubic Feet per Minute (SCFM)
- Standard Cubic Feet per Hour (SCFH)
- Normal Liters per Minute (NLPM)
- Normal Cubic Meters per Hour (NCMH)
- Standard Liters per Minute (SLPM)
- Standard Cubic Meters per Hour (SCMH)

Table A-2 describes the volumetric flow rate field options.

Table A-2. Volumetric Flow Rate Units

Field Name	Volumetric Flow Rate Units	Field Value
Customer Ref. Temperature	SCFM, SCFH	32°F, 68°F, 77°F, Custom Temperature
	NLPM, NCMH	0°C
	SLPM, SCMH	0°C, 20°C, 25°C, Custom Temperature
Custom Ref. Temperature		A value from -250 to 250
Customer Ref. Pressure	SCFM, SCFH	14.696 PSIA, Custom Pressure
	NLPM, NCMH	101.325 kPa
	SLPM, SCMH	101.325 kPa, Custom Pressure
Custom Pressure		A value from 10 to 1,000
Meter Filter Time Constant (sec)		A value from 0 to 600

Measuring Mass Rate

The following tables describe the flow unit options:

- Pounds per Minute (PPM)
- Pounds per Hour (PPH)
- Kilograms per Minute (KPM)
- Kilograms per Hour (KPH)

Table A-3 describes the mass rate options.

Table A-3. Mass Rate Units

Field Name	Mass Rate Units	Field Value
Customer Ref. Temperature	PPM, PPH	32°F, 68°F, 77°F, Custom Temperature
	KGM, KGH	0°C, 20°C, 25°C, Custom Temperature
Custom Ref. Temperature		A value from -250 to 250
Customer Ref. Pressure	PPM, PPH	14.696 PSIA, Custom Pressure
	KGM, KGH	101.325 kPa, Custom Pressure
Custom Pressure		A value from 10 to 1,000
Meter Filter Time Constant (sec)		A value from 0 to 600

Analog Outputs

Table A-4 and Table A-5 describe the Analog Outputs Commissioning field options. The second analog output (AO2) fields are not available with the HART option.

Table A-4. Analog Outputs Commissioning — AO1

AO1 Type	Field Name	Field Value Units
Velocity	AO1 4 mA Set Point	SFPM, NMPS, or SMPS
	AO1 20 mA Set Point	
Volumetric Rate	AO1 4 mA Set Point	SCFM, SCFH, NLPM, NCMH, SLMP, or SCMH
	AO1 20 mA Set Point	
Mass Rate	AO1 4 mA Set Point	PPM, PPH, KGM, or KGH
	AO1 20 mA Set Point	

Table A-5. Analog Outputs Commissioning — AO2

Field Name	Field Value
AO2 4 mA Set Point	The default temperature is 32°F for English units. The default temperature is 0°C for metric units.
AO2 20 mA Set Point	The default temperature is 77°F for English units. The default temperature is 500°C for metric units.

Modbus Address

Table A-6 describes the Modbus Address field options.

Table A-6. Modbus Address

Field Name	Field Value
Modbus Address	A value from 1 to 247
Baud Rate	9600, 14400, 19200, 38400, 57600

Appendix B

USB Driver Installation

Overview

This appendix provides information on installing the correct USB driver based on your Windows computer and Kurz device configuration. The methods for accomplishing certain tasks and the appearance of options depend on your operating system and permissions. Every effort has been made to include potential dialog boxes and messages for all operating systems.

- Administrator privileges are required to install device drivers.
- KzComm release 3.04 and earlier support Windows XP and Windows Vista. KzComm and KzComm Read-Only release 3.10 and later support Windows 7, 8, and 10. All platforms require up-to-date service packs.
- Confirming the USB connection requires that the B-Series flow meter is powered on and connected to a Windows computer via a USB cable. USB ports are only active with a connected, powered-on device.

Using the Correct USB Driver

The Kurz USB device driver or FTDI USB device driver must be installed before attempting to connect a computer with a B-Series device via a USB cable. Both drivers are available during the KzComm installation, on the Kurz customer CD in the USB Device Driver folder, and on the Kurz website (KurzInstruments.com). The FTDI USB driver is a 64-bit compatible virtual COM port (VCP) driver available from the FTDI Chip website (ftdichip.com).

Each B-Series device has a barcode ID associated with the sensor control (SC) board that determines the USB driver required for your computer.

- Barcode IDs that start with an A or B, or are less than C51937 use the Kurz USB driver. You must explicitly install and assign the driver to the Kurz device.
- Barcode IDs with C51938 or greater use the FTDI USB driver. The necessary driver should install automatically when the device is connected via USB and the computer has internet access.

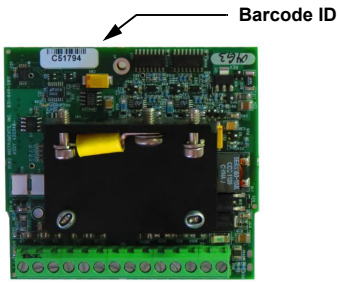
The barcode ID is located in the following places:

- In a B-Series device menu.
  1> Enter Display mode by pressing **D**.
  2> Press **2** to invoke the Quick Jump option.
  3> Press **33** for the **Calibration Coefficients** menu, and then press **E**.

  The barcode ID appears.
- In the printable configuration file, as shown in the following example:

```
KURZ INSTRUMENTS, INC.
KZCOMM VERSION:                3.00
CONFIGURATION FILENAME:        INSERTION_METER.cf
FIRMWARE VERSION:              MFT-B VER H2.08
CONFIGURATION DATE:            01/15/2013  13:54
ELECTRONIC BOARD BARCODE:      C23096
ELECTRONIC BOARD ASSY:         420380
ELECTRONIC BOARD BUILD:        05 B
```

- On the sensor control board.



Identifying the USB Driver

If the drop-down list for the COM Port field does not provide an identifiable name, open Windows Device Manager. You can do this by using one of the following methods:

- For Windows XP, choosing **Start→Run**, typing **devmgmt.msc** in the Open field of the Run dialog box, and pressing **Enter**.
- For Windows Vista, 7, 8, and 10 choosing **Start** and typing **Device Manager** in the search field. You can select it when it appears as an option.

In the Device Manager window:

1> If present, expand **Ports (COM & LPT)**, **Other Devices**, and **Human Interface Devices**.

   If you installed the Kurz USB driver and a B-Series device with a barcode A, B, or less than C51938 is currently powered on and connected, it will be labeled as **Kurz USB-HID -> COM device**.

   If you installed the FTDI USB driver and a B-Series device with a barcode C51938 or higher is currently powered on and connected, it will be labeled as **USB Serial Port (COM#)**.

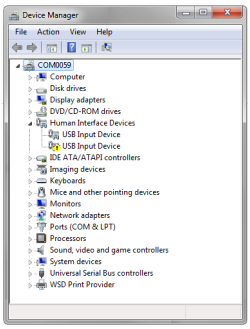
   If a USB-to-RS-485 adapter is used, its name may reference the manufacturer.

2> To verify the port number, unplug the USB connector, and then plug it back in.

   If the USB driver installed correctly, the COM port entry that disappears and reappears in the **Ports (COM & LPT)** section represents the port used for the Kurz device.

The USB driver must be manually installed/re-installed when:

- The USB entry appears in the **Other Devices** or **Human Interface Devices** section.
- The USB entry appears as **USB Human Interface Device**.
- An old USB driver is used.
- A yellow exclamation mark appears.



Auto-Installing the FTDI USB Driver

The FTDI USB driver is available during the KzComm installation, on the Kurz customer CD in the USB Device Driver folder, and on the Kurz website (KurzInstruments.com). The FTDI USB driver is a 64-bit compatible virtual COM port (VCP) driver available from the FTDI Chip website (ftdichip.com).

You must have administrator privileges to install the FTDI USB driver:

1. Locate the FTDI USB driver installer file.

   If you are using the Kurz customer CD, locate the **CDM20###_Setup.exe** file on the CD. If you are downloading the file from a website, locate where you downloaded the installer file.

2. Double-click the **CDM20###_Setup.exe** icon to start the FTDI USB driver installation. If you have limited privileges, you can select the **CDM20###_Setup.exe** icon, right-click and select **Run as administrator**.

3> If prompted by the User Account Control to run the setup program, click **Yes** to allow the program to make changes.

4> If prompted to verify the installation, click **Install** to allow the program to make changes.

   A command prompt window should appear showing that the driver is being installed.

   Note If the window does not appear, repeat the driver installation until you see the command prompt window.

5> Open Windows Device Manager and follow the steps for ensuring the USB driver is installed correctly, as described in “Identifying the USB Driver” on page B-3.

Auto-Installing the Kurz USB Driver

The Kurz USB driver is available during the KzComm installation, on the Kurz customer CD in the USB Device Driver folder, and on the Kurz website (KurzInstruments.com).

You must have administrator privileges to install the Kurz USB driver:

1. Locate the Kurz USB driver installer file.

   If you are using the Kurz customer CD, locate the **HidComInst.exe** file on the CD.
   If you are downloading the file from the Kurz website, locate where you downloaded the installer file.

2. Double-click the **HidComInst.exe** icon to start the Kurz USB driver installation.
   If you have limited privileges, you can select the **HidComInst.exe** icon, right-click and select **Run as administrator**.

6> If prompted by the User Account Control to run the setup program, click **Yes** to allow the program to make changes.

7> If prompted to verify the installation, click **Install** to allow the program to make changes.

8> The Kurz USB driver is not Windows logo tested. If prompted, click **Continue Anyway**.

9> Open Windows Device Manager and follow the steps for ensuring the USB driver is installed correctly, as described in “Identifying the USB Driver” on page B-3.

   The Kurz USB driver should appear in the **Ports (COM & LPT)** section labeled as **Kurz USB-HID -> COM device (COM#)**. If the entry does not appear, turn off and then turn on power to the B-Series device.

Manually Installing the Kurz USB Driver for Windows Vista, 7, 8, and 10

You must have administrator privileges to install the Kurz USB driver:

1> The Kurz USB driver is available on the Kurz customer CD.
Insert the Kurz customer CD into a local CD drive or copy its content into a local folder.

2> Open Windows Device Manager and follow the steps for ensuring the USB driver is installed correctly, as described in “Identifying the USB Driver” on page B-3.

3> Select the entry with the **USB to Serial** or **USB Human Interface Device** label and yellow exclamation mark in the **Other Devices** or **Human Interface Devices** that is associated with the B-Series device.

4> Right-click on the label and select **Update Driver Software**.

The Update Driver Software dialog box appears.

5> Click **Browse my computer for driver software**.

The Select Your Device’s Type dialog box appears.

6> Select **Show All Devices** and click **Next**.

The Browse for Driver Software dialog box appears.

7> Select **Let me pick from a list of device drivers on my computer**.

The Select the Device Driver dialog box appears. Even if the Kurz USB driver is listed, you can re-install the latest driver if you are not sure of the version.

8> Click **Have Disk**.

The Install From Disk dialog box appears.

9> Click **Browse**.

The Locate File dialog box appears.

10> Navigate to the Kurz customer CD, select the **hidcom.inf** file located in the Kurz USB Device Driver folder, and click **Open**.

The Install From Disk dialog box appears.

11> Click **OK**.

Kurz USB-HID -> COM device appears in the Model list.

12> Select the driver and click **Next**.

13> If a message appears indicating the driver is not digitally signed, click **Continue**.

14> When prompted to install the device driver software, click **Install**.

The installation starts, followed by a message indicating a successful installation.

15> If prompted, click **Close** to complete the installation.

16> Open Windows Device Manager and follow the steps for ensuring the USB driver is installed correctly, as described in “Identifying the USB Driver” on page B-3.

Manually Installing the Kurz USB Driver for Windows XP

You must have administrator privileges to install the Kurz USB driver:

1> The Kurz USB driver is available on the Kurz customer CD.
Insert the Kurz customer CD into a local CD drive or copy its content into a local folder.

2> Open Windows Device Manager and follow the steps for ensuring the USB driver is installed correctly, as described in “Identifying the USB Driver” on page B-3.

3> Select the entry with the **USB to Serial** or **USB Human Interface Device** label and yellow exclamation mark in the **Other Devices** or **Human Interface Devices** that is associated with the B-Series device.

4> Right-click on the label and select **Update Driver**.

The Hardware Update dialog box appears with a prompt in searching for the software.

5> Choose **No, not this time** and click **Next**.

You are prompted for a search location.

6> Choose **Install from a list or specific location** and click **Next**.

You are prompted for search and installation options.

7> Choose **Don’t search, I will choose the driver to install** and click **Next**.

You are prompted to select the device driver. Even if the Kurz USB driver is listed, you can re-install the latest driver if you are not sure of the version.

8> Click **Have Disk**.

The Install From Disk dialog box appears.

9> Click **Browse**.

The Locate File dialog box appears.

10> Navigate to the Kurz customer CD or Kurz folder containing, select the **hidcom.inf** file located in the Kurz USB Device Driver folder, and click **Open**.

The Install From Disk dialog box appears.

11> Click **OK**.

Kurz USB-HID -> COM device appears in the Model list.

12> Select the driver and click **Next**.

13> If a message appears indicating the driver is not digitally signed, click **Continue**.

14> When prompted to install the device driver software, click **Install**.

The installation starts, followed by a message indicating a successful installation.

15> If prompted, click **Finish** to complete the installation.

16> Open Windows Device Manager and follow the steps for ensuring the USB driver is installed correctly, as described in “Identifying the USB Driver” on page B-3.

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