

Click 301 Serial to Ethernet

INSTALLATION QUICK START GUIDE

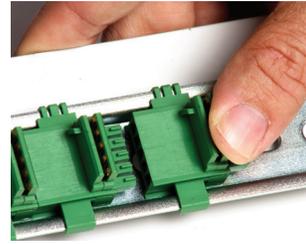


The Click 301 converts half-duplex RS-232 & RS-485 communication to Ethernet and vice versa. For more information about this product, visit wavetronix.com.

1 Mount the device

The Click 301 mounts over a T-bus for power and communication:

- 1 If the Click 301 was shipped with the T-bus connector attached, remove the connector from the module.
- 2 Snap the connector onto the DIN rail by positioning it over the rail with the male connector pointing to the right. Hook one arm over the edge of the DIN rail and press down on the other arm until it snaps into place.
- 3 Connect the T-bus connector to the rest of the T-bus by sliding them together until you hear them snap into place.
- 4 Mount the Click 301 onto the DIN rail: position it properly over the T-bus connector, hook the lip over the lower edge of the DIN rail, and use a rocking motion to snap the module into place.



2 Wire power and communication

If you are using a Click 200 surge protector with the Click 301, power and communication are provided to the Click 301 through the T-bus (see the Click 200 Quick Start Guide). If you don't have a Click 200 surge protector, use the following steps to wire power and communication into the Click 301:

- 1 Plug a T-bus 5-screw terminal block into the first T-bus connector.
- 2 Wire DC power (10–30 V) from the power supply into the first screw terminal on the 5-screw terminal block; wire -DC into the second screw terminal.
- 3 Connect RS-485 communication (+485, -485, and GND) to either the remaining three screw terminals on the 5-screw terminal block or to the screw terminals in the pluggable screw terminal block on the top of the Click 301 (see labels for correct wiring).



The front of the Click 301 has two other communication ports.

- **DB-9 connector** - Connect a straight-through cable here for an RS-232 communication
- **RJ-45 jack** - Connect an Ethernet cable here to communicate over an Ethernet network

3 Use on-device configuration features

Next, use the device's configuration features to make sure the Click 301 is wired and working properly. The Click 301 has three LEDs that monitor device activity and help you select operating modes, as well as a push-button, labeled Mode Switch, also used for operating modes.

- 1 Check LEDs to make sure the device has power.
- 2 Autobaud device to make sure it can talk to the sensor or other attached serial device (see table).

LED activity indicating functions:

- Red** – Shows device has power
- Yellow** – Shows device is transmitting data
- Green** – Shows device is receiving data

Hold the push-button to cycle through modes, then release when the desired mode is reached.

LED operating mode indicating functions

Selection	Operating mode	Running	Completed
	Autobaud – Release push-button when green LED is solid to autobaud to sensor.		 Failure  Success
	Reset – Release push-button when red LED is blinking to reset to factory defaults.		

Note. On some devices, the yellow LED may replace the green LED in the autobaud process—that is, the yellow LED selects the autobaud process, is one during the autobaud process, etc.

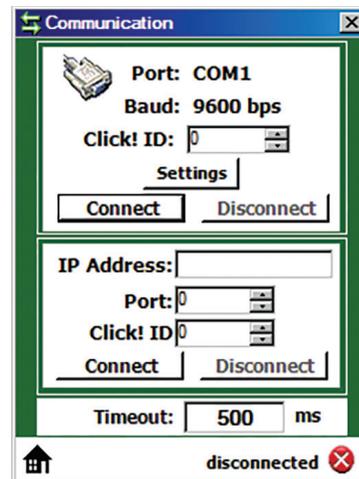
4 Install Click Supervisor

Click Supervisor will be used to configure the Click 301. Follow these steps to install it:

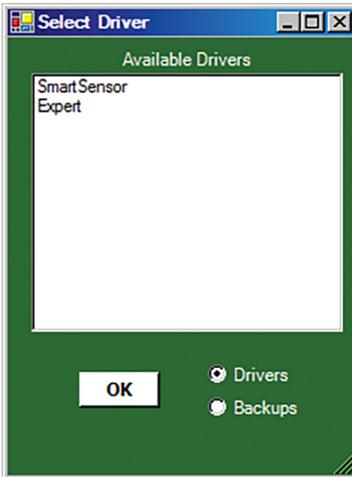
- 1 Download the setup file from www.wavetronix.com (under **Support**).
- 2 Double-click on the file to run the setup wizard. Follow the steps to install.

5 Make a connection

- 1 Make sure there is a connection between the Click 301 and the computer that Click Supervisor is on. This can be through the DB-9 connector on the module or through another device also on the T-bus; for example, the Click 421 can communicate with the computer through Bluetooth.
- 2 Run Click Supervisor and select **Communication**. This screen lets you pick the type of connection you want to make—serial or IP. The Click 301 must be configured using serial communication.
- 3 Click **Settings** to make any necessary changes to the settings, such as the port or the baud rate. Click **OK** to return to the Communication screen, then click **Connect**. Keep the Click ID set to 0.
- 4 In the next screen, Click Supervisor will display all the devices it discovers. When the Click 301 appears, select it and click **Select**. Click Supervisor will connect to the device.



6 Select a driver

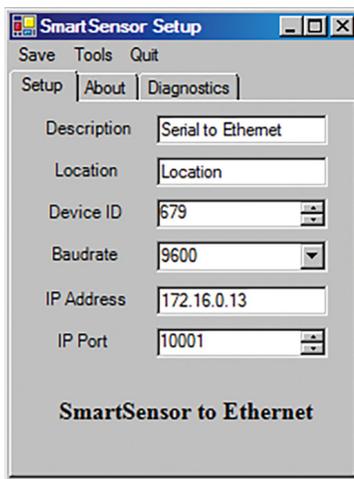


- 1 Select **Setup Click** on the main screen.
- 2 Select the appropriate driver for your application:
 - **SmartSensor** – If you connect from a TOC to Click 301 to sensor
 - **Point to Point** – If you connect from a TOC to Click 301 to another Click 301 to sensor
 - **Expert** – Use only when instructed to by Wavetronix Technical Services
- 3 Click **OK**.

Once that driver has loaded, you can use it to change function settings such as baud rate as well as to change informational settings such as device location and description. You can also use the driver to view device information such as serial number and firmware version.

7 Configure the model

Change the appropriate settings below. Only the IP address and port-related settings are necessary for device functionality.

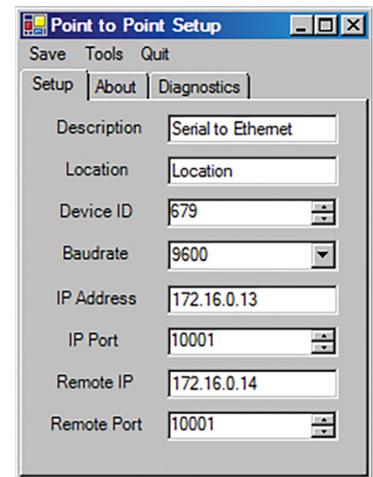


SmartSensor Driver

- **Description/Location** – For informational/identification purposes only. These settings do not affect the operation of the device.
- **Device ID** – Changes the ID number associated with the device. By default this is the last five digits of the serial number.
- **Baud rate** – If connecting to a sensor, this must match the sensor's baud rate.
- **IP address** – Change this setting to the desired IP address of the device. Default is 172.16.0.13.
- **IP port** – Change this setting to the desired IP port of the device. Default is 10001.

Point to Point Driver

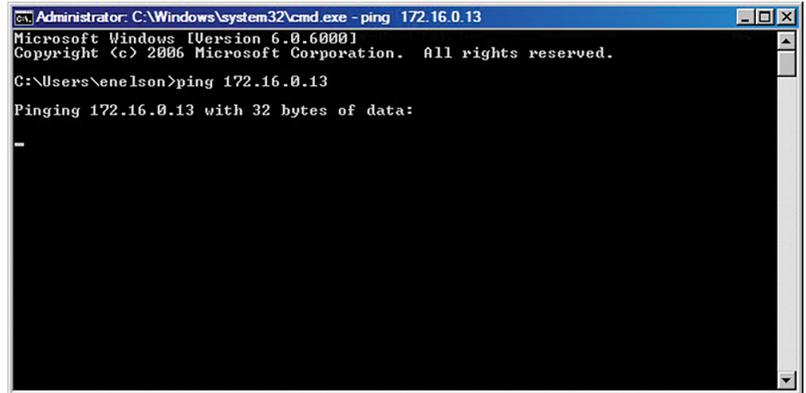
- **Description/Location** – For informational/identification purposes only. These settings do not affect the operation of the device.
- **Device ID** – Changes the ID number associated with the device. BY default this is the last five digits of the serial number.
- **Baud rate** – If connecting to a sensor, this must match the sensor's baud rate.
- **IP address/IP port** – See SmartSensor driver above.
- **Remote IP address** – Change this setting to the IP address of the device you want your device to connect to. Default is 172.16.0.14.
- **Remote IP port** – Change this setting to the IP port of the device you want your device to connect to. Default is 10001.



8 Verify the connection

Follow the steps below to verify the Ethernet/IP connection using your laptop.

- 1 Set up a static IP on the PC by going to **Windows Start Menu > Settings > Control Panel > Network > Network Connections**. Select the **Ethernet Connection**, click the right mouse button, and select **Properties**. Select **Internet Protocol**, and click on **Properties**. If the Click 301 IP address is on the 172.16.0.xxx, input a static IP address for the laptop that is different from any other devices on the network, such as 172.16.0.250 and a subnet of 255.255.255.0 and then click **OK**.
- 2 Connect a crossover Ethernet cable between the laptop and the Ethernet port on the Click 301.
- 3 To check the connection, ping the Click 301: go to the Start menu and select **Run**. Type “cmd” into the dialog box that appears. The cmd.exe program will open.
- 4 Type “ping” followed by the IP address of the Click 301. Hit **Enter**. If you get a response, the connection is working properly. If the request times out or you get a message saying the IP address could not be found, something is wrong with your Click 301 Ethernet connection.



```
Administrator: C:\Windows\system32\cmd.exe - ping 172.16.0.13
Microsoft Windows [Version 6.0.6000]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\eneilson>ping 172.16.0.13

Pinging 172.16.0.13 with 32 bytes of data:

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