Shark® 100BT Quickstart Guide

Mechanical Installation

Installation Steps: Slide top of groove of meter onto DIN Rail. Press gently until the meter clicks into place. If mounting with DIN Rail provided, use Black Rubber Stoppers (also provided) shown above. To remove meter, pull down on Release clip. Electrical Installation: Select diagram for your application.

DIN Rail with black rubber stoppers

DIN Installation

NOTE: Other wiring configurations are available. See the full Manual on the enclosed CD.
**Communication Wiring**: The Shark® 100BT has an RJ45 port on its backplate, which accommodates a standard Ethernet cable.

**Factory Default Settings**: The Factory Default IP parameters programmed in the INP10 card are:
- IP Address: 10.0.0.1
- Subnet Mask: 255.255.255.0

**Set up Ethernet Communication with a PC**: You need to establish communication between your PC and the meter in order to configure the meter’s IP address so that it will communicate on your Network.

1. Select **Start>Control Panel>Network Connections**. You will see the screen shown on the right.
2. Right-click on the Local Area Connection you will use to communicate with the meter and select **Properties**. You will see the screen below, on the left.
3. Select Internet Protocol [TCP/IP] and click the **Properties** button. You will see the screen below, on the right.

4. Click Use the Following IP Address radio button and enter:
   - IP Address: 10.0.0.100
   - Subnet Mask: 255.255.255.0
5. Click **OK** and then **Close** to close the two screens.
6. Connect the meter’s RJ45 port to your PC’s Ethernet port using a standard Ethernet cable.
7. Open your web browser, type http://10.0.0.1. in the address bar and press **Enter**. You will see the screen shown on the right.
NOTE: If you don’t see the screen, reset the meter: insert a pointed tool, for example, a ballpoint pen, in the Reset button for 30 seconds (see figure at the top of page QS-2 for the Reset button’s location). Repeat step 7.

8. Enter the following default settings:
   - User name: admin
   - Password: admin

9. Click OK. You will see the BACnet/IP Home webpage, shown on the right.

10. Click BACnet/IP Settings on the left side of the webpage to see the page shown below, on the right.

11. Click in the IP/Address field and change the meter’s factory-set IP address (10.0.0.1) to an IP address in the same subnet as your Network. Contact your System Administrator if you are unsure of the address to use.

12. Click OK at the bottom of the webpage.

13. Click Activate Configuration on the left side of the webpage to display the screen shown on the right.

14. Click Confirm. You will see a message that the configuration has been saved and the meter is rebooting.

15. Disconnect the meter’s RJ45 cable from your PC and connect it to your Network.

**Software Connection**: connect to the meter at its new IP address so you can configure it.

1. Open Communicator EXT software (you can download the software from the CD that came with the meter).

2. Click Connect in the tool bar. You will see the Connect screen, shown on the right.
3. Enter the meter’s new IP address in the Host field and click **Connect**. The Device Status screen opens, confirming the connection.

4. Click **OK**. Communicator EXT’s Main screen opens.

**Configuration Steps:**

5. Click the **Profile** button in the tool bar. You will see the Shark 100B Profile screen, shown on the right.

6. Click the **Scaling** tab and select settings based on your application. The entry fields are as follows:

   - **CT Numerator** - enter the value you want to use.
   - **CT Denominator** (display only - can’t be changed).
   - **CT Multiplier** - select from 1, 10 and 100.
   - **CT Fullscale** (Calculated automatically)
   - **PT Numerator** - enter the value you want to use.
   - **PT Denominator** - enter the value you want to use.
   - **PT Multiplier** - select from 1, 10, 100, and 1000.
   - **PT Fullscale** (Calculated automatically)
   - **System Wiring**: select from 3 Element Wye, 2.5 Element Wye, or 2 CT Delta.
   - **Phases Displayed**: select from A, AB, or ABC.

   **NOTE:** Voltage Full Scale = PT Numerator x PT Multiplier; Current Full Scale = CT Numerator x CT Multiplier

   **IMPORTANT!** Specify Primary and Secondary Voltage in Full Scale (NOT Ratios).

**Example CT Settings:**

- **200/5 Amps:** set the Ct-n value as 200, Ct-S value as 1.
- **800/5 Amps:** set the Ct-n value as 800, Ct-S value as 1.
- **2000/5 Amps:** set the Ct-n value as 2000, Ct-S value as 1
- **10,000/5 Amps:** set the Ct-n value as 1000, Ct-S value as 10.

**Example PT Settings:**

- **14400/120 Volts:** set the Pt-n value as 1440, Pt-d value as 120, Pt-S value as 10.
- **138000/69 Volts:** set the Pt-n value as 1380, Pt-d value as 69, Pt-S value as 100.
- **345000/115 Volts:** set the Pt-n value as 3450, Pt-d value as 115, Pt-S value as 100.
- **345000/69 Volts:** set the Pt-n value as 345, Pt-d value as 69, Pt-S value as 1000.

**Update Device:**

7. Click the **Update** button to send the new settings to the meter.

**NOTE:** For additional wiring options, programming screens, and instructions on using the Shark® 100BT’s BACnet®, refer to the *Shark® 100/100T/100B Meter Installation and Operation Manual* and the *Communicator EXT 3.0 User Manual* on the enclosed CD.

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