

Connecting a PROFINET Device to OBLAC Drives

1. Notices

The information contained in this document is subject to change without notice. Synapticon GmbH provides this material "as is" and makes no warranty of any kind, expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Synapticon GmbH shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance or use of this material, whether based on warranty, contract, or other legal theory.

1.1. Copyrights and Trademarks

This document contains proprietary information, which is protected by copyright. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of Synapticon GmbH.

SYNAPTICON, SOMANET, OBLAC, ACTILINK, as well as the Synapticon logos, are registered trademarks ® of Synapticon GmbH.

PROFINET® is a registered trademark of Siemens.

All other product names are the property of their respective trademark or service mark holders and are hereby acknowledged.

Synapticon GmbH
Steinbeisstr. 1
71101 Schönaich
Germany, Europe
www.synapticon.com

Copyright © Synapticon GmbH 2025. All rights reserved.

1.2. Intended Use

Synapticon documentation contains information to ensure the safe and proper use of its products. As such, all Synapticon products should be handled, installed, and maintained by trained automation and control specialists who have knowledge of electrical systems and/or drive technology. These individuals should also be familiar with the applicable standards and requirements.

It is recommended to understand all components, safety information, and precautions for correct operation prior to use. Refer to, and retain, this documentation for reference.

ATTENTION

Synapticon products must be used in accordance with all specified safety requirements, i.e., all standards and regulations, applicable laws.

1.3. Warnings

Boxes are used to indicate potentially dangerous situations as follows:

NOTE

Background information that is not necessarily required for basic operation but for optimal performance.

IMPORTANT

Required for correct functionality. Ignoring these facts may result in erratic behavior or lack of function.

ATTENTION

Indicates a situation that could possibly lead to serious accidents and/or destruction of the servo drive.

DANGER

If these warnings are ignored, hazardous and potentially fatal situations may arise from improper or careless use.

1.4. Reporting Errors

It is in our best interest to provide detailed, user-oriented and error-free documentation. If something is missing, incomprehensible or incorrect, go to [Suggest Documentation Improvement](#) and complete the form displayed there. In the “Link to documentation page” field, enter **Connecting a PROFINET Device to OBLAC Drives v1.0**.

1.5. Versioning

This documentation will be constantly updated and improved. The version in the footer reflects the current documentation release.

2. Table of Contents

1. Notices	2
1.1. Copyrights and Trademarks	2
1.2. Intended Use	3
1.3. Warnings	4
1.4. Reporting Errors	5
1.5. Versioning	5
2. Table of Contents	6
3. Overview	7
4. Network Setup with Siemens PRONETA	7
4.1. Step 1: Physical Connection	7
4.2. Step 2: Import the GSDML File	8
4.3. Step 3: Select a Network Adapter	9
4.4. Step 4: Assign an IP Address and Device Name	10
5. Using OBLAC Drives	11
5.1. Control Mode (Commissioning)	11
5.1.1. Step 1: Physical Connection	11
5.1.2. Step 2: Connect with OBLAC Drives	12
5.2. Monitor Mode	14
5.2.1. Step 1: Physical Connection	14
5.2.2. Step 2: Connect with OBLAC Drives	15

3. Overview

Before integrating a drive into a PLC project, a network address must be assigned to it and initial configuration performed. This information presented here details the two main phases of this process:

1. **Network Setup with PRONETA**

Assigning an IP Address and Device Name

2. **Drive Configuration with OBLAC Drives**

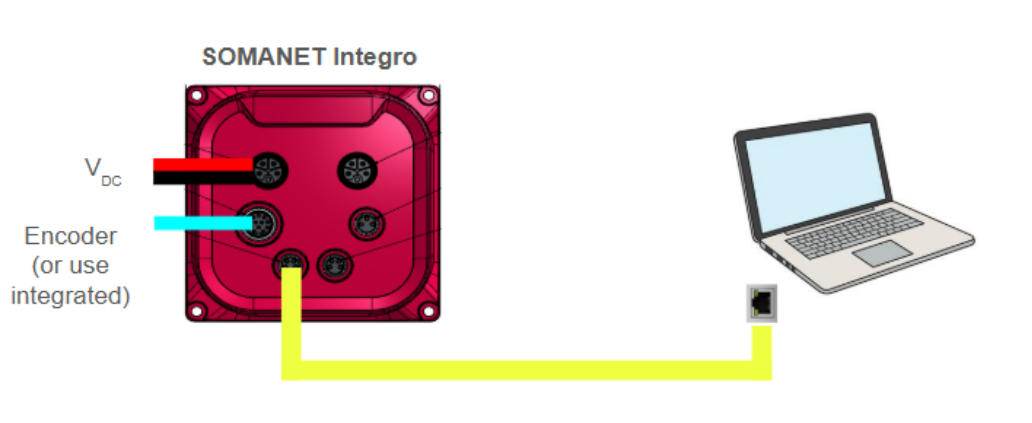
Connecting to the drive for commissioning (Control Mode) or diagnostics (Monitor Mode). Monitor mode is not a necessary step for the commissioning process, but is included here for the sake of completeness.

4. Network Setup with Siemens PRONETA

This step uses the Siemens [PRONETA](#) tool to find the drive on the network and give it a valid network identity.

4.1. Step 1: Physical Connection

Directly connect your PC's Ethernet port to one of the Ethernet ports on the drive.

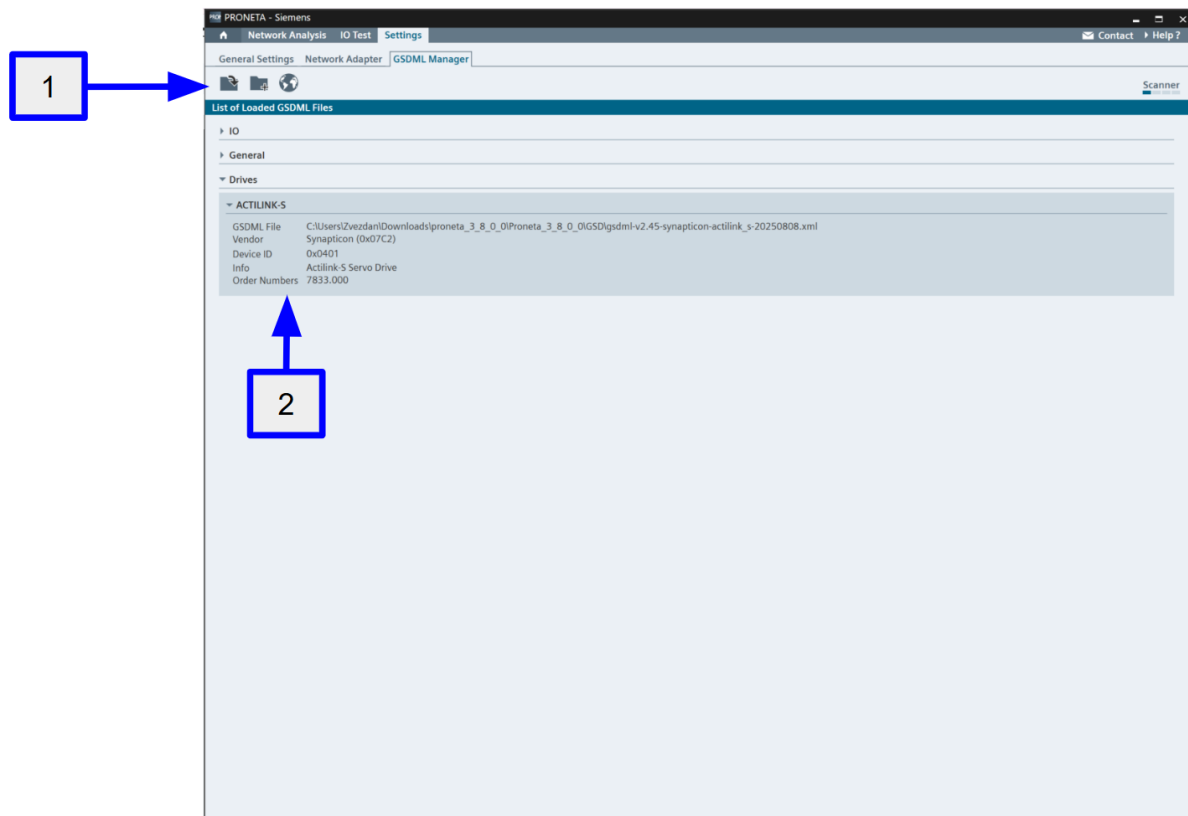


4.2. Step 2: Import the GSDML File

For PRONETA to recognize the drive correctly, you must first import its GSDML file.

In PRONETA, go to the **Settings** tab and select the GSDML Manager.

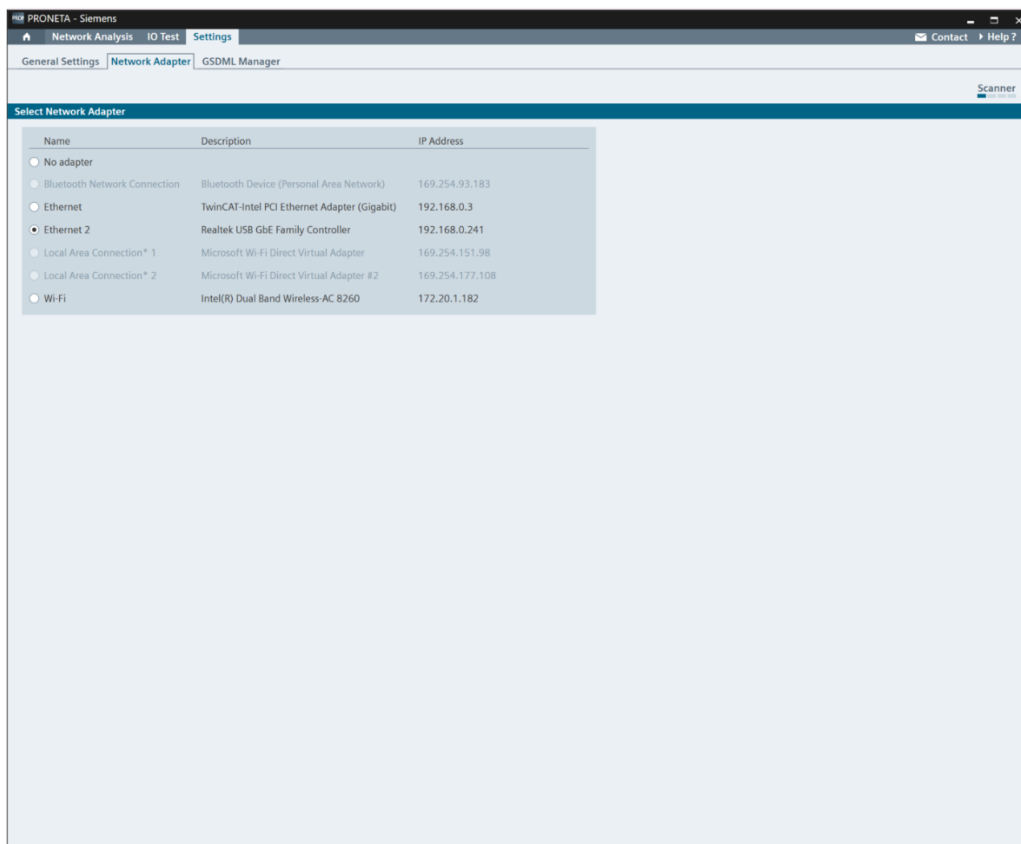
1. Click the **Import** icon (marked as 1) and select the GSDML file for your drive.
2. Once imported, the device information will appear in the list (marked as 2).



4.3. Step 3: Select a Network Adapter

Next, you must tell PRONETA which network port on your computer to use for scanning.

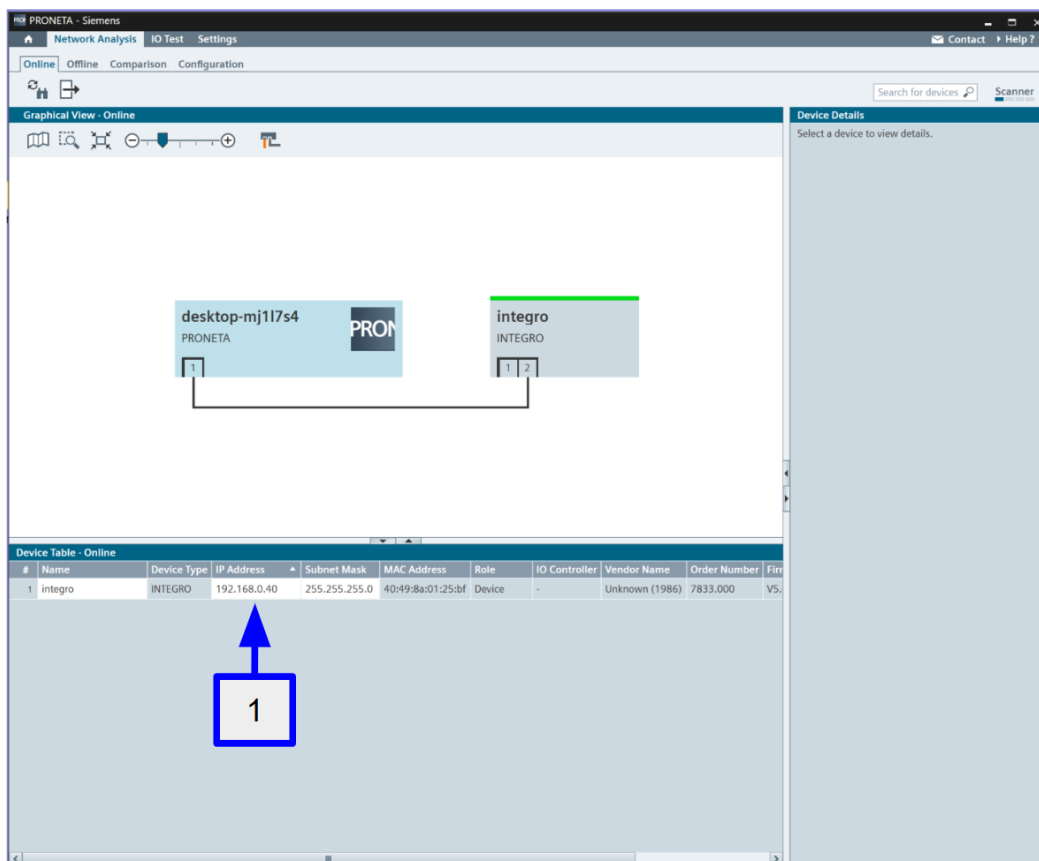
1. While still in Settings, click on the **Network Adapter** tab.
2. Select the adapter that is physically connected to the drive. This is often an "Ethernet" or "Local Area Connection" port.



4.4. Step 4: Assign an IP Address and Device Name

To assign an IP Address and (optionally) a device name:

1. Navigate to the **Network Analysis** tab.
2. Under Settings, select the Network Adapter that is connected to the drive. PRONETA will scan the network and display your connected drive. Initially, it may not have an IP address.
3. Select the drive from the list and use the tool's functions to assign it a static IP Address, e.g., 192.168.0.40, as marked by 1, and a unique PROFINET Device Name, e.g., "integro".
4. Restart the device



5. Using OBLAC Drives

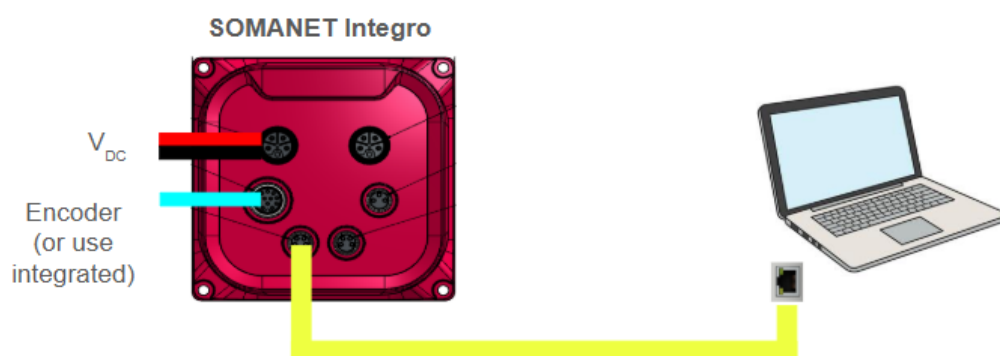
After setting the IP address, you can connect to the drive using the OBLAC Drives software. It can operate in two distinct modes.

5.1. Control Mode (Commissioning)

Use Control Mode when the drive is connected directly to your PC. This mode provides full control to configure parameters, tune the motor, and run tests without a PLC.

5.1.1. Step 1: Physical Connection

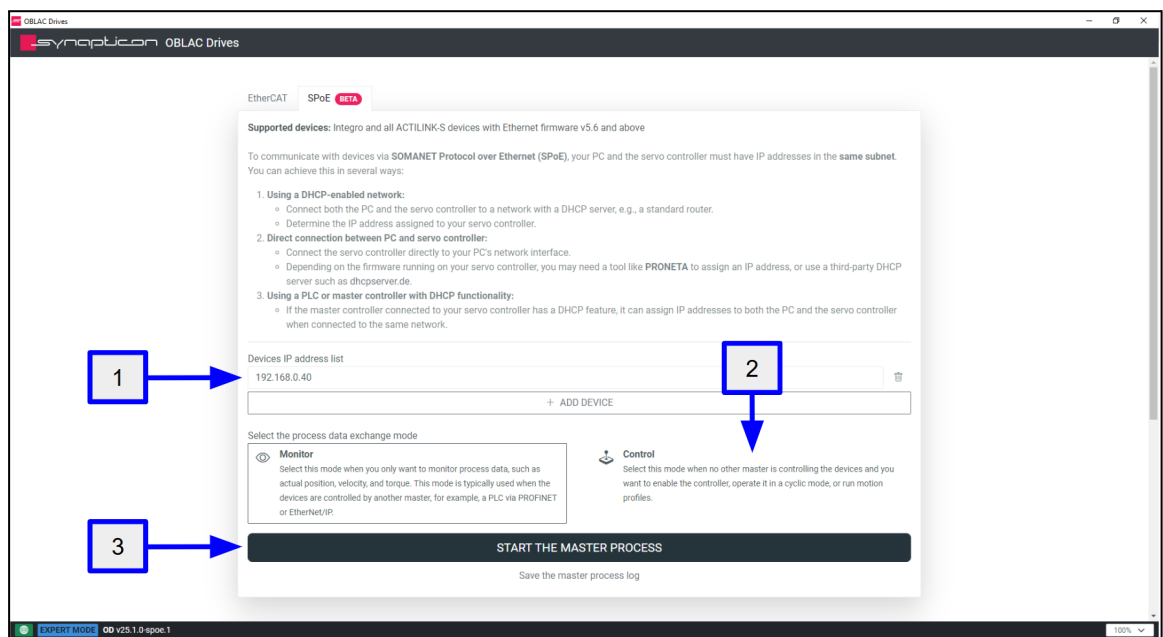
The physical connection is the same as for the PRONETA setup: a direct Ethernet cable from your PC to the drive. Optionally, it is possible to connect the device with the PLC between the PC and the device; however, the IP address of the device must be set on the PLC.



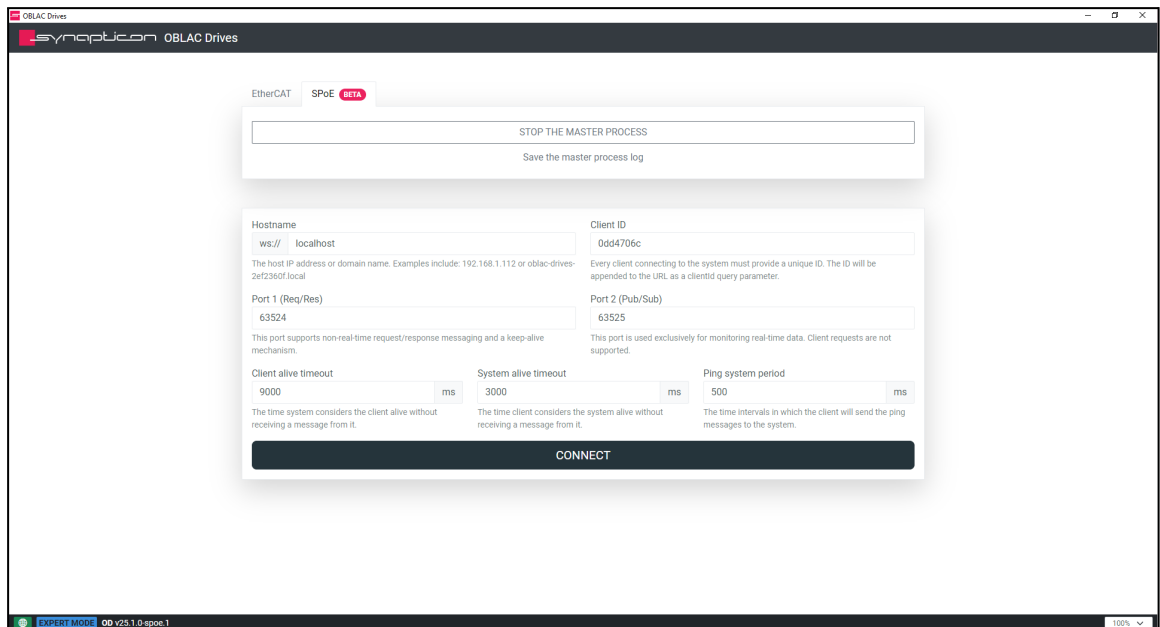
5.1.2. Step 2: Connect with OBLAC Drives

To connect the device with OBLAC Drives:

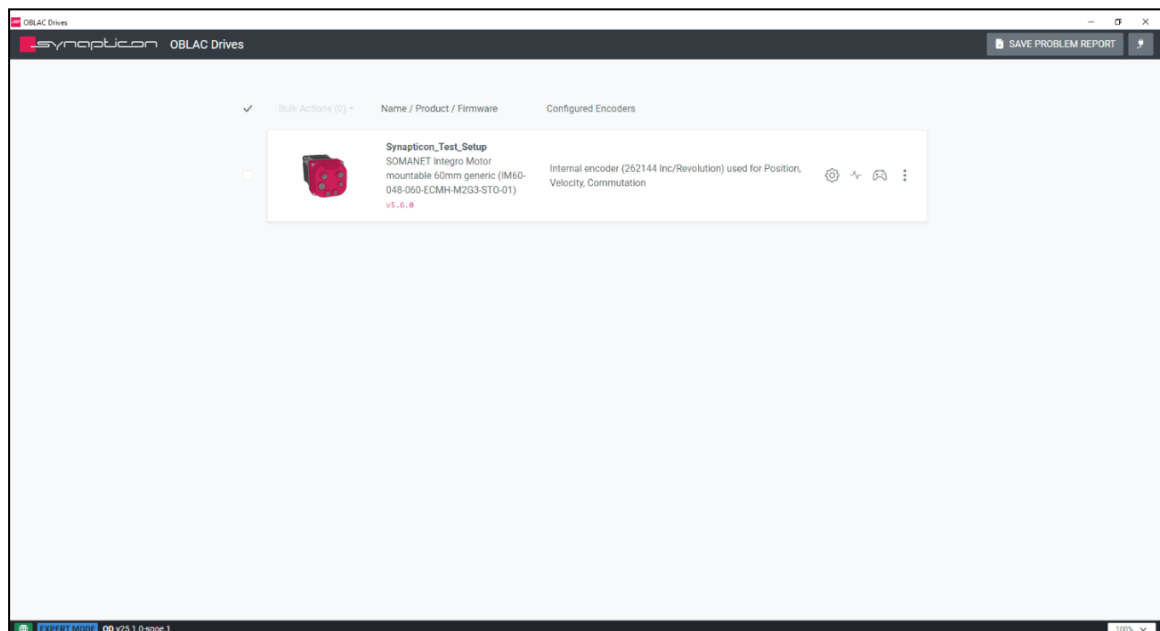
1. Launch OBLAC Drives. It will scan and find your Ethernet adapter.
2. Click on the device to open the connection dialog.
3. Enter the drive's IP Address in the device list (1).
4. Select Control mode (2). This mode makes OBLAC Drives the master.
5. Click **START THE MASTER PROCESS** (3) to connect.



6. In the final screen, when the master process is running, click **CONNECT**. You now have full control over the drives for commissioning.



7. Select the device to be commissioned or tuned.



8. Follow the [ACTILINK-S Integro Commissioning Guide instructions](#) for details on tuning Synapticon devices.

5.2. Monitor Mode

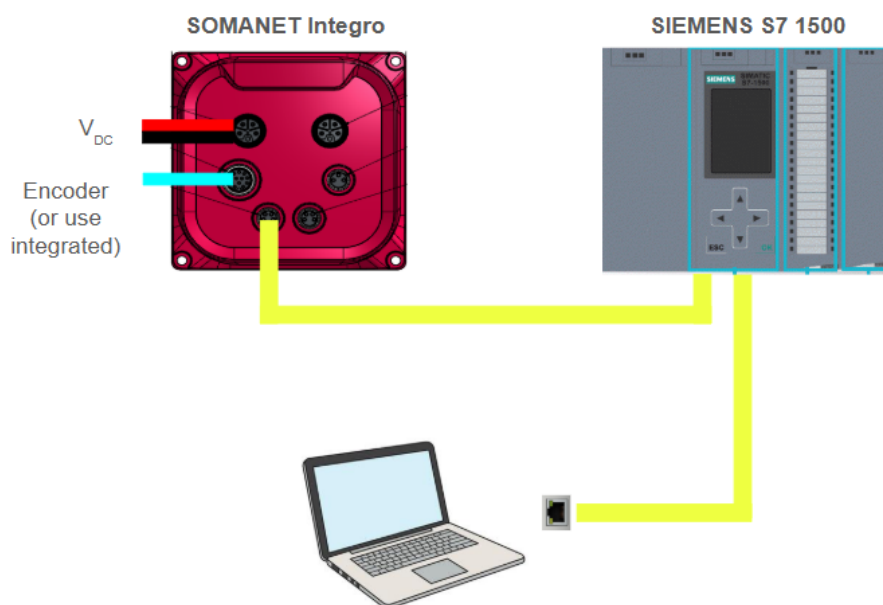
NOTE

This is optional and only used for diagnostics.

Use Monitor Mode when the drive is already connected to - and controlled by - a PLC. This allows the use of OBLAC Drives as a diagnostic tool to view live data, e.g., position, velocity, torque, without interfering with the PLC's control signals.

5.2.1. Step 1: Physical Connection

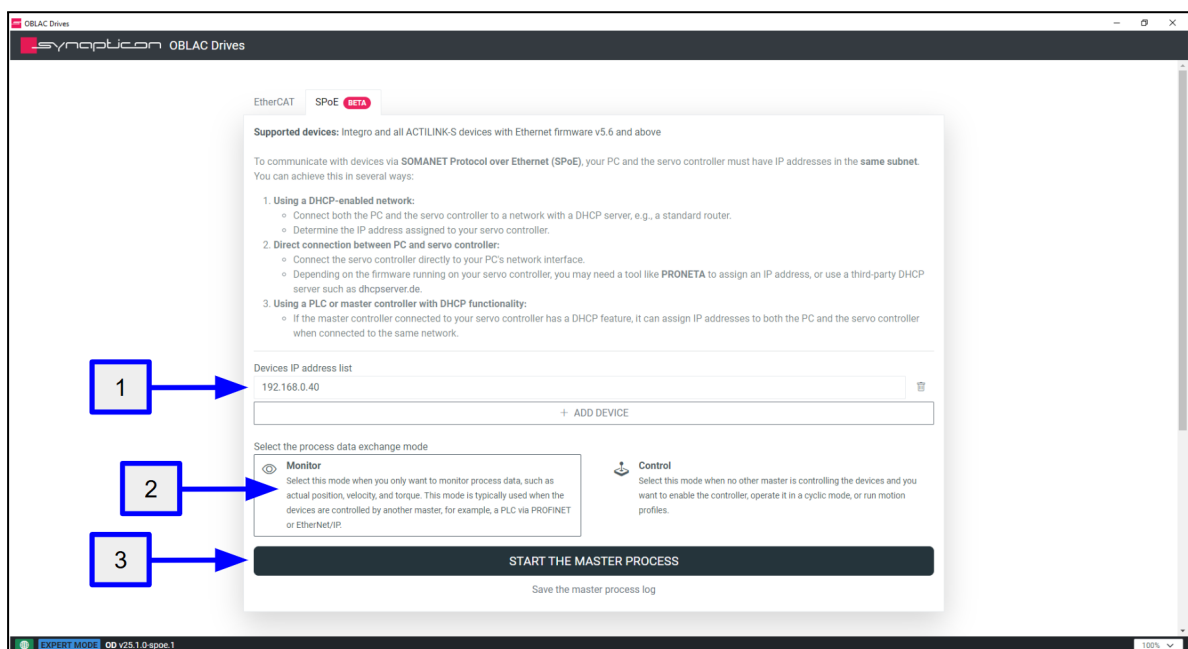
In this setup, the drive is connected to the PLC and your PC is connected to the same network, e.g., via the same switch or another port on the PLC.



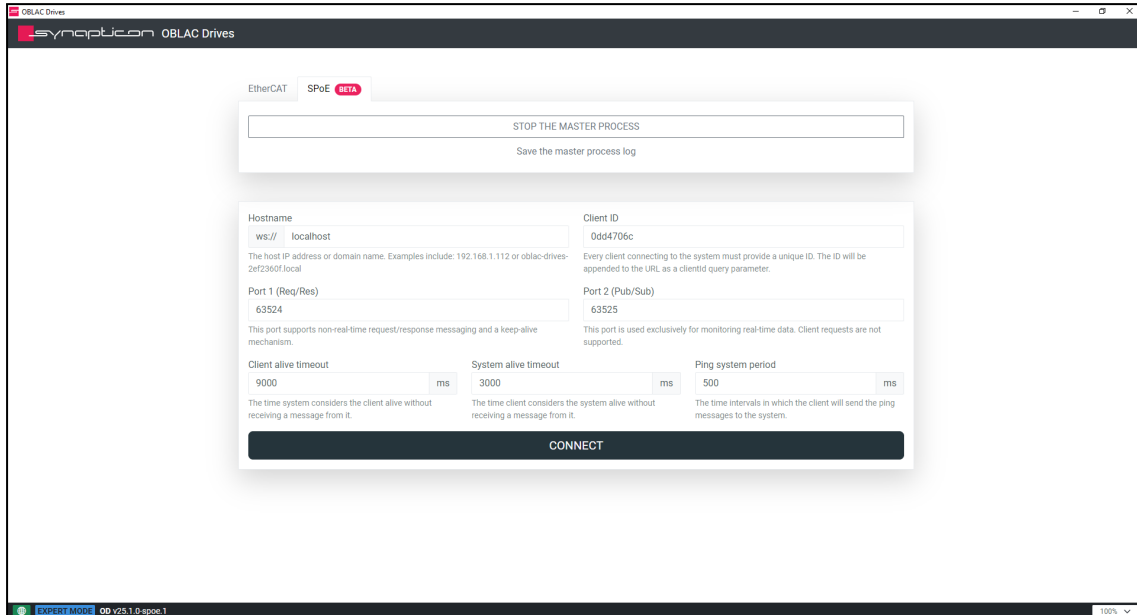
5.2.2. Step 2: Connect with OBLAC Drives

To connect the device with OBLAC Drives:

1. Launch OBLAC Drives and open the connection dialog for your Ethernet adapter.
2. Enter the drive's IP Address (1).
3. Select **Monitor** mode (2). This mode ensures OBLAC Drives only reads data and does not send any control commands.
4. Click **START THE MASTER PROCESS** (3).



5. In the final screen, when the master process is running, click **CONNECT**. All devices on the network can now be monitored.



6. Select the device to be monitored.

