

# How to Work with Bihl+Wiedemann Products?

Take advantage of our best practice experience through this quick guide containing useful tips on component selection, installation and commissioning as well as on performing setup quality checks and regular maintenance.

## 1. Selecting the Products

An ASi circuit consists of four components: the ASi gateway, ASi modules, power supply and ASi cable. The product selectors on the Bihl+Wiedemann website help you select the products. Select the most relevant criteria to narrow down the list of products.

**Best Practice** Our „**B+W Choice**“-logo highlights those items that are used particularly frequently. In addition to being suitable for all standard applications, they offer excellent value for your money. We advise you to purchase the Bihl+Wiedemann Software Suite [BW2916](#) (for safety applications) or [BW2902](#) (for standard applications), which enables you to plan, commission and check your product selection via the integrated hardware catalogue.

### 1.1 Number and Type of I/Os

The first steps in creating a new project with AS-Interface are **determining the number of I/O signals needed** and the required housing characteristics.

Select the right modules for your application:

- for [standard I/O signals](#)
- for [safety I/O signals](#)

### 1.2 Number and Type of Gateways

Select the right ASi Gateway for your application depending on your PLC:

- [ASi fieldbus gateways for standard applications](#)
- [ASi fieldbus gateways with integrated safety monitor for safety applications](#)

**Best Practice** We recommend using devices with integrated decoupling coils at 4 A per ASi circuit. Typically, 4 A per ASi circuit are sufficient. Variants with 8 A per ASi circuit are available for increased energy demand from ASi.

### 1.3 Selecting the PC Software

We have developed two software packages to make the setup and commissioning of the devices and entire ASi circuit as easy and convenient as possible: [BW2916](#) for safety applications or [BW2902](#) for purely standard applications.

**Best Practice** It is recommended to define the hardware configuration right in the planning phase using the hardware catalogue (included in the ASIMON360 software as part of the [Bihl+Wiedemann Safety Suite BW2916](#) and in the ASi Control Tools360 software as part of the [Bihl+Wiedemann Suite BW2902](#)).

The hardware configuration assigns the ASi addresses automatically to the ASi nodes and presents them in a clear representation. This greatly facilitates ASi circuit planning and address assignment.

The configuration of the modules, the number of modules per circuit and the power demand per ASi circuit are also checked. Whereby warnings and assistance are provided in the event of possible problems.

As an introduction to working with the hardware catalogue, we recommend the [video tutorial "ASi Control Tools360: Configuration of ASi-5 Devices"](#).

To commission ASi circuits with safety products, it is also necessary to create the "Safety Project". To do this, we recommend viewing the [video tutorial "ASIMON360: Configuration of Safety Devices"](#).

## 1.4 Selecting the Accessories

The next step is to select the appropriate power supplies, depending on how much current power is needed:

- [Power Supply](#)

The fourth component needed for the ASi circuit is the yellow ASi cable and, if necessary, a black AUX cable for additional auxiliary power:

- [Cable installation](#)

It is also recommended to use the ASi-5/ASi-3 [address programming device BW4708](#) for subsequent addressing and commissioning of the ASi module.

## 2. Commissioning

### 2.1 Creating a Project in the Hardware Configuration

If you have not yet created a project in the hardware configuration of Bihl+Wiedemann Suites (see 1.3); this would be the next step in commissioning your ASi installation.

### 2.2 Electrical Connection

The basic electrical structure of the entire ASi installation is described in the [ASi installation guide](#). The electrical connection is described in the installation instructions. It is available via the download section of the respective articles and is also enclosed with the products in printed form. In it you will also find various connection examples.

### 2.3 Addressing the ASi Modules

First connect the ASi modules to the desired ASi circuit and then address the ASi modules with the [ASi-5/ASi-3 address programming device](#). After that, the circuits can be supplied with voltage.

### 2.4 Importing the Configuration Using the Commissioning Wizard

After you have created the (safety) configuration of the ASi circuit with ASIMON360 or ASi Control Tools360, use the integrated commissioning wizard to put the ASi installation into operation.

The commissioning wizard automatically compares the target and actual configuration and the parameterization of the entire system, including the peripherals (e.g., the connected IO-Link devices).

### 2.5 Checking the Installation

Use our [online bus information](#) to check that the sensors and actuators connected to the modules are functioning correctly. The graphic display provides a quick and easy overview of the status of the entire system.

**Best Practice** Use our [diagnostic software](#) (included in the BW2916 or BW2902 software packages) to perform a final check of the entire configuration and installation via a quick measurement (approx. 10 min recommended) before connecting the ASi circuit to the higher level control.

## 3. Commissioning on the PLC

### 3.1 Integration into the PLC

In the download area of your gateway's product detail view you will find the corresponding device description file and all necessary instructions and software tables for the integration of your device into the PLC.

For some control systems, we also provide sample projects that include a simple basic configuration for cyclic data exchange and diagnostics.

### 3.2 Check and Release Measurement

Finally, we recommend performing a detailed release measurement of the entire, running system using our diagnostic software.

After startup, the software independently creates a log file which you can attach to the documentation and hand over to the operator when the system is delivered. To do this, let the system run for about 30 minutes, going through all situations if possible. The software monitors the function during the entire time and thus determines a qualitative statement about the installation.

**Best Practice** Use the "Send Report" button to send the results of the system analysis to Bihl+Wiedemann.

### 3.3 Maintenance

The Bihl+Wiedemann [diagnostic software](#) is also suitable for continuous monitoring of the system. We recommend having the diagnostic software check the state of the ASi circuits at least once a year.

## 4. How do I Get Assistance?

Personal consultation is our highest priority. We look forward to telephone or email contact. You will be then be connected directly to your personal contact person. You can find our worldwide contact details [here](#).