WEST

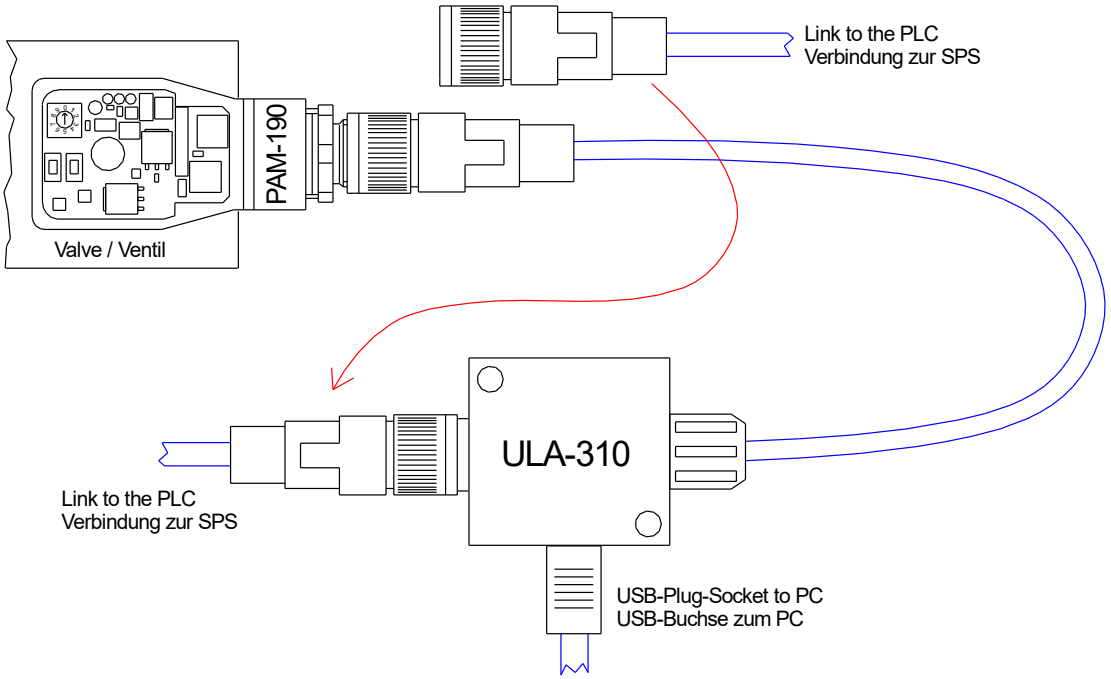
Technical documentation

ULA-310 Connection to PAM-190

LIN-Bus communication

Electronics
Hydraulics meets
meets Hydraulics
Electronics

1.1 Typical Wiring



Power plug amplifier plus programming device

1.2 Operation in half-duplex mode

In this operating mode, communication takes place in half-duplex mode. This means that the sending and receiving processes are performed alternately, instead of simultaneously as in full-duplex mode. In half-duplex mode, the baud rate is fixed at 19200 baud and cannot be changed. Automatic baud rate detection and switching are not available in half-duplex mode. The corresponding settings in the options dialog are deactivated when half-duplex mode is selected.

Caution!
Normally, full-duplex communication should **always** be enabled. Half-duplex communication was specifically implemented for integrated valve electronics that communicate via a LIN bus. All other modules only support full-duplex communication. If the setting is incorrect, communication is not possible.

The program offers several user-specific settings that can be configured in the Options dialog. This dialog can be accessed from the main menu (Options->Settings) or via the corresponding button in the tool palette. All settings made here are saved automatically and will be retained even after restarting the program.

The "Interface" tab is used to configure interface-specific settings. The serial port can be selected both here and in the program's main window. The module's operating mode is defined under "Baudrate options." Descriptions of the operating modes can be found under "Establishing a connection to the module." The available settings under "Baudrate settings" vary depending on the selected operating mode. The following images illustrate the two dialog variations.

1.3 Identify module

A module can only be identified if a connection exists between the module and the program. During module identification, the module ID, parameter structure, and all parameter values are read. This is necessary to correctly initialize the individual functions (parameter list, monitor, remote control, status displays, oscilloscope) and to adapt the program to the functionality of the connected module. The parameter list, monitor, and oscilloscope functions are only available after successful identification. Otherwise, the corresponding function buttons are disabled.

1.4 Offline operation

Offline operation allows users to load, edit, and save parameter data sets even without a connected module. A new data format has been chosen for these parameter files, which have the extension *.wpc.

To create a new parameter file, a module must be connected once. After saving the file, it can then be edited offline. It is possible to manage parameter data from multiple different modules in a single file.

The oscilloscope or monitor displays an overview of the available process parameters and status bits. However, this is for informational purposes only; no functionality is available in offline mode.

1.4.1 Loading offline data

Loading offline files is initiated in the main menu under the menu item "File->Load Offline Data". Offline files can only be loaded if there is no connection to a module. Otherwise, the menu item is disabled.

If an offline file contains parameter data from different modules, a dialog box will automatically appear, allowing you to select the available module data.

1.4.2 Saving offline data

Saving offline files is initiated in the main menu under the menu item "File->Save Offline Data". Saving offline files is always possible when either a module has been connected and identified, or an existing offline file has been loaded. Parameter data can also be saved in an existing offline file. If this file already contains data for the respective module, it will be overwritten after a confirmation prompt. Otherwise, it will be added to the file. Existing data from other modules remains unaffected.

Additionally, it is also possible to save offline data using the import function (see section 3.2 Import/ Export).

1.5 Notes