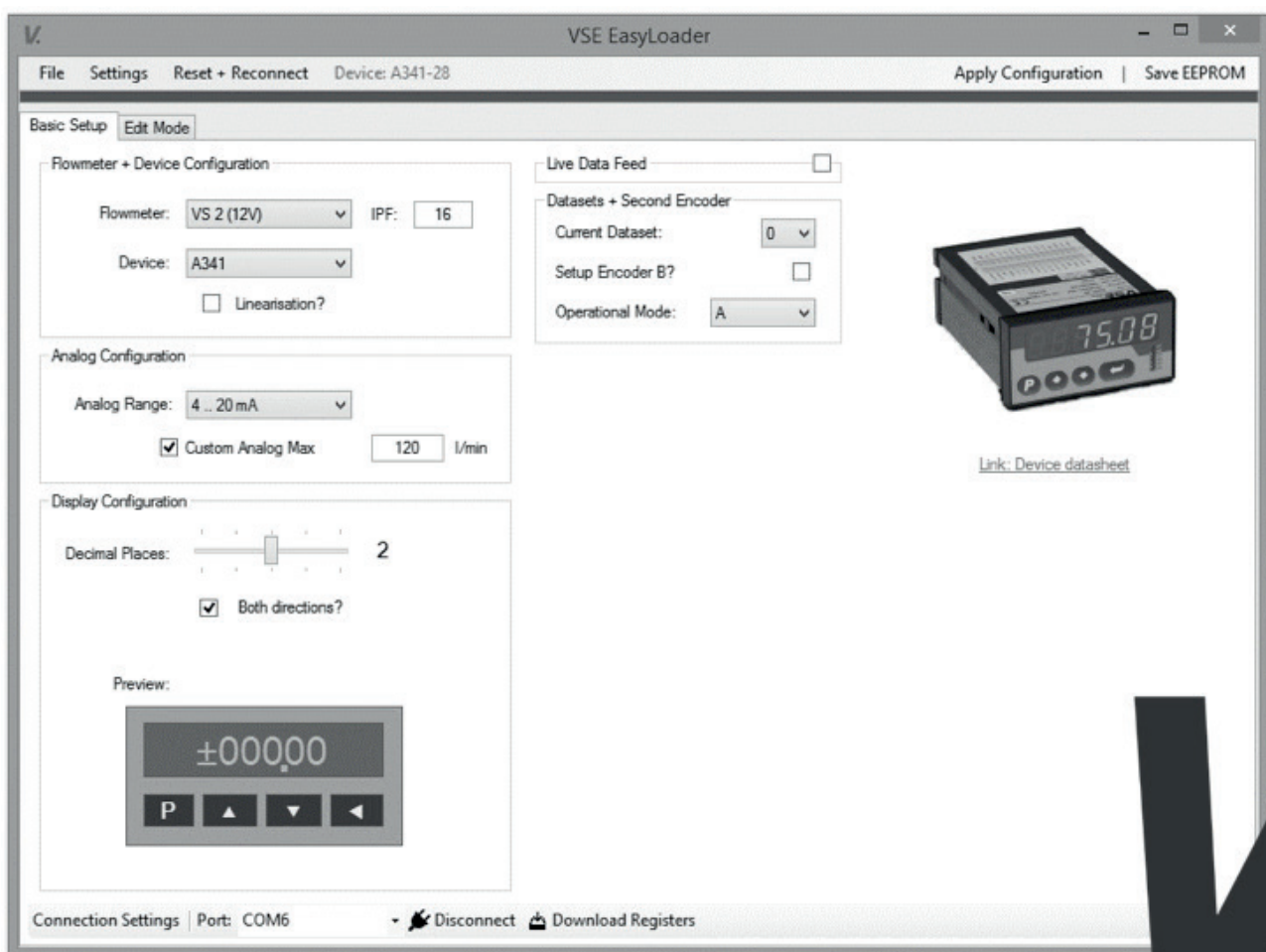


Solutions for Fluid Technology



OPERATING INSTRUCTIONS

for the software VSE EasyLoader

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2. FEATURES

The software VSE EasyLoader allows fast and simple configuration of the measuring instruments **A341 28**, **A350 28** and **FU252**. It is especially designed for VSE flowmeters and contains the operating parameters of all available devices. The data is transmitted via the serial port (RS232), similar to the previous configuration software OS 6.0.

The configuration of the measuring device for the flowmeter and settings for analog output and display can be selected with drop-down lists and input fields.

Furthermore the following features are available:

- Fast and consistent configuration due to included flowmeter database
- Preview of display for setting the decimal separator
- Direct input of calibration values for automatic calculation of the linearization matrix
- Setting for a custom maximum value of the analog output in l/min
- Import/Export of parameter files (.xml-files)
- Live data display of the current display value and analog output value
- Quick shortcut to the pdf connection diagram of the selected device
- Support for configuration of multiple datasets and both encoder inputs (A341-28)
- Manual editing of the device registers, similar to OS 6.0

3. USER INTERFACE

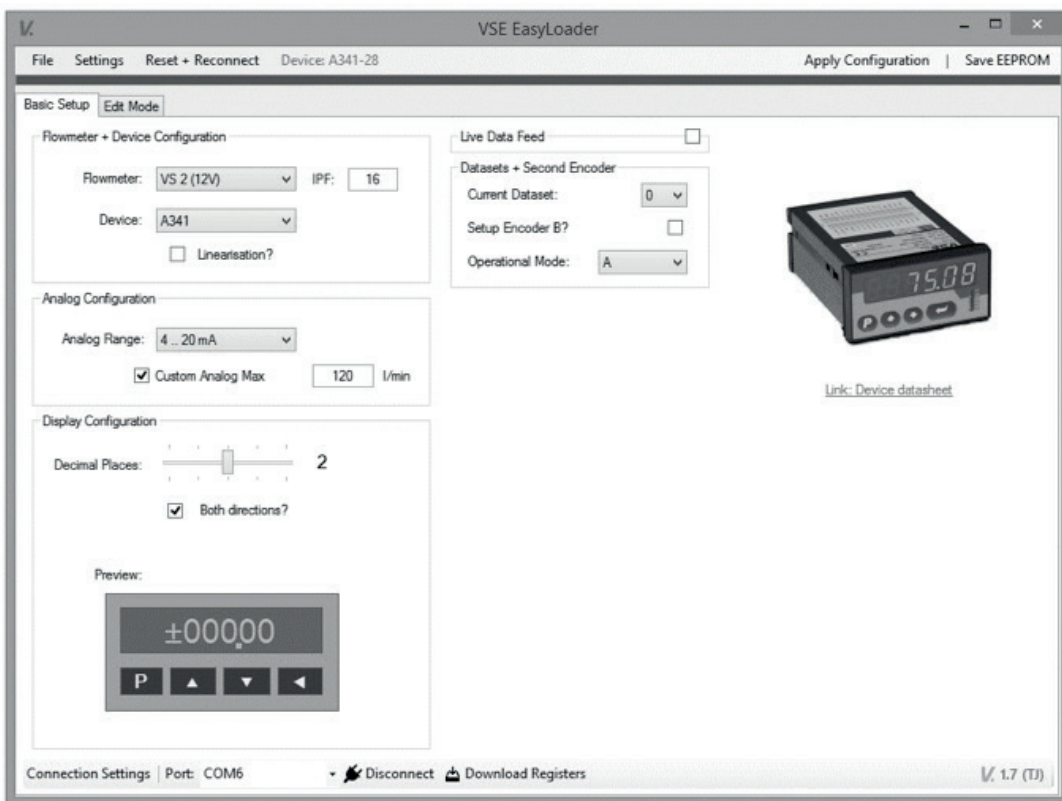


Figure 1: Basic setup page

3.1 Connection setup

To communicate with the measuring instrument a connection over the serial port must be established. You may use the supplied USB-RS232 adapter cable. Please make sure the RX and TX-Lines are crossed when using other cables.

To establish a connection you can either use the "Auto Connect and Download" button in the upper toolbar or manually select a port and click "Connect" in the lower toolbar.

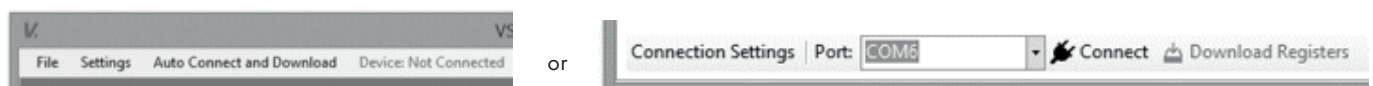


Figure 2: Connection settings

The connected device is automatically recognized, displayed in the upper toolbar and preselected in the flowmeter and device configuration

ration block. The current connection status is always shown in the colored bar underneath the upper toolbar.

3.2 Flowmeter and device configuration

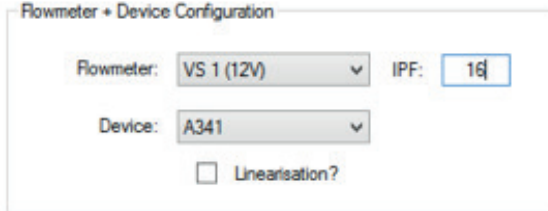


Figure 3: Flowmeter and device configuration block

The EasyLoader has a database of the specific parameters (K-Factor, Max. Q, Max. f) of every available flowmeter of the VS(I), RS-Standard and RS-HT series. After you have selected your flowmeter in the drop-down list, you can input your interpolation factor in the field next to it. For a standard VS flowmeter the IPF is 1.

3.3 Analog output configuration

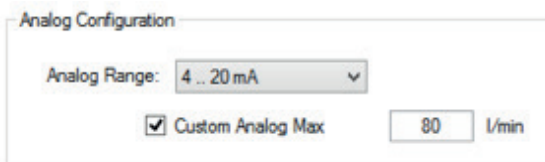


Figure 4: Analog range selection block

In the analog range selection block you may choose between 4 different options:

- ± 10 V
- 0 .. 10 V
- 0 .. 20 mA
- 4 .. 20 mA.

You can also set a custom flowrate for full-scale analog output (i.e. +10 V or 20 mA) to increase the analog resolution when not using the full flow range of the flowmeter.

3.4 Display Configuration (only A341-28 and A350-28)

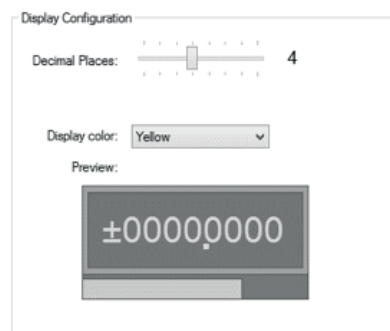


Figure 5: Display configuration for the A350-28

This configuration block allows the user to set the displayed decimal places with a slider. You may check yourself, if the maximum flow value fits into the display.

Hint: Setting too little decimal places can lead to a loss in analog output precision.

For the A350-28 the menu also allows to set the display color.

3.5 DIL-Switch Configuration (only FU252)

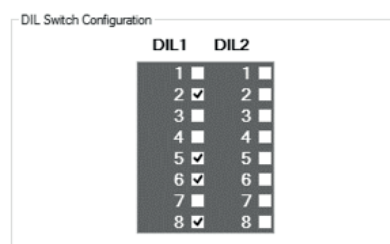


Figure 6: DIL-Switch Settings for the FU252

For correct configuration of the FU252 with the EasyLoader the DIL-Switches on the device itself have to be set properly. This block shows the correct settings.

3.6 Device preview with shortcut to the connection diagram



[Link: Device datasheet](#)

Figure 7: Device preview with link underneath

After preselecting a device or establishing a connection, a preview picture is displayed with a local link to a connection diagram in PDF file format.

3.7 Toolbar

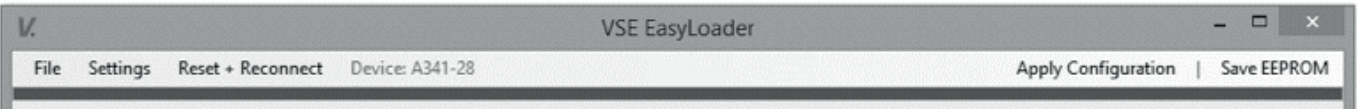


Figure 8: Toolbar of the EasyLoader

The „File“-Menu contains the following options:

Open calibration sheet (.xlsx)	Open calibration sheet (.xlsx)
Import OS 6.0-XML (by EasyLoader)	Imports the basic settings and linearisation points from a .xml file, which previously was exported from the EasyLoader. Files exported by the OS 6.0 software can't be imported into the EasyLoader. Please use the previous software for this purpose.
Export Configuration as OS 6.0-XML	Exports the selected basic settings into a .xml file. This function is also available offline without a device connected.
Export device settings as OS 6.0-XML	Exports all relevant device registers from the connected device to a .xml file. If additional basic settings were made beforehand, they will also be saved in the exported file.
Close	Closes the program.

Table 1: File-Menü

The settings menu provides help for advanced features, e.g. adding custom flowmeter definitions to the drop-down list in the basic settings tab.

The button “Auto-Connect and Download” changes to “Reset and Reconnect” after a successful connection to a device. Use this button to reinitialize the program and connect to the next device after a finished configuration procedure.

The two buttons on the right side of the toolbar allow the user to apply the configuration to the device and subsequently store it in the device’s EEPROM. Some devices take some time for the applying process, please be patient to prevent data loss.

3.8 Register editing

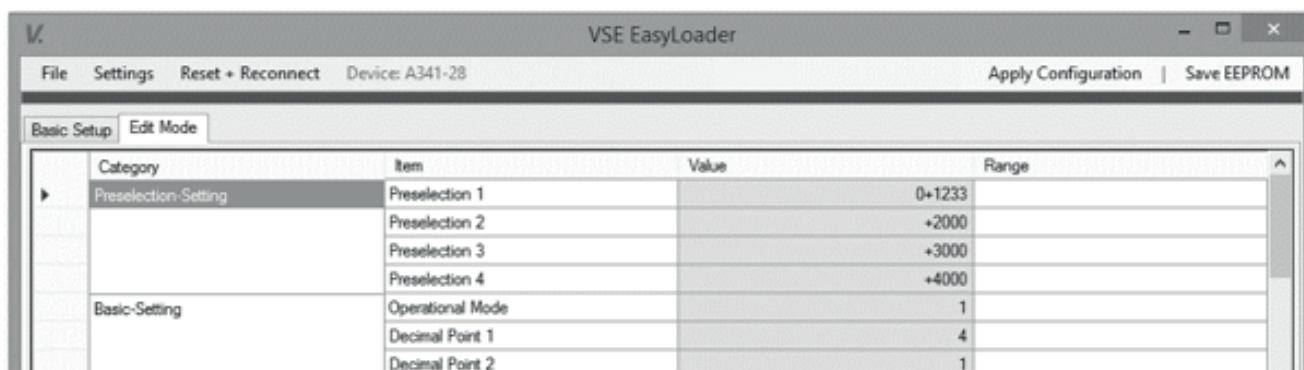


Figure 9: Register editing tab

The tab „Edit Mode“ allows the user to edit individual device register values. The values are downloaded to the table upon device connection. A changed value is sent to the device directly after pressing the enter key.

3.9 Linearization settings

If you select the linearization checkbox in the flowmeter and device selection block, another tab for configuration of linearization values appears. The number of available linearization points depends on the connected device.

You may use the “Copy-and-Paste“-function to copy your values from an Excel Sheet or Word Table into the linearization matrix. To do so, highlight the upper left cell of where the content should be pasted and press “CTRL+V”.

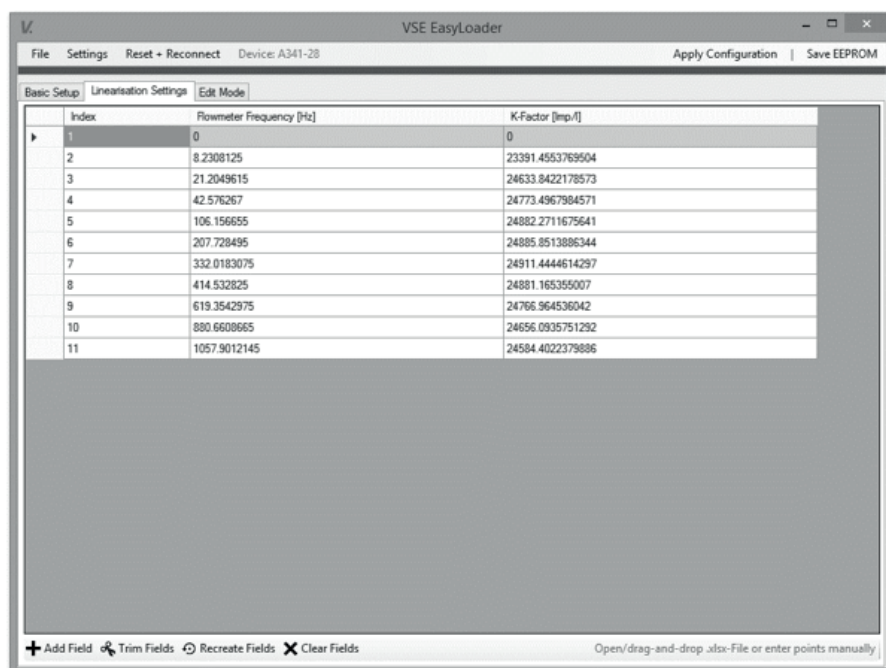


Figure 10: Tab for linearization settings

The necessary data for the linearization matrix are the output frequency of the flowmeter [Hz] and the corresponding kFactor [Pulses/Liter]. The first linearization point is always set to zero, the last one is always

the maximum value for the device, to ensure correct display values during overload conditions.

4. DATASETS AND CONFIGURATION OF ENCODER 2 (ONLY A341-28)

4.1 Datasets

The A341-28 allows the configuration of up to five datasets. A dataset contains all device settings including the linearization points. Switching between the datasets is done directly on the device itself by using a special keystroke (see A341-28 manual).

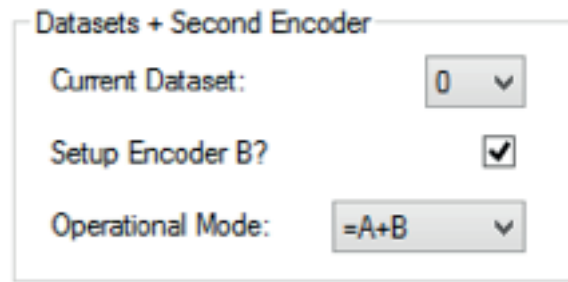


Figure 11: Setting for working with data sets and both encoders.

Important:

By default all configured values are written to dataset 0. If another dataset should be written, it can be either switched on the device itself or chosen with the corresponding drop-down list.

After switching with the software, wiring to the device is possible, but reading of the registers still returns data from the previously selected dataset. To avoid this, you have to power cycle the device (restart) and use the "Reset and Reconnect" function of the software to read the new register values. Setting the dataset on the device with the keystroke always performs a restart automatically.



4.2 Encoder 2

To configure both encoder inputs, you first need to setup the parameters for Encoder 1 and apply them like usual. Once done, you need to tick the checkbox "Setup Encoder B?" and choose the operational mode (e.g. addition). All settings which are now applied, are sent to the device registers for Encoder 2.

5. DATA IMPORT AND EXPORT

The software exports custom extended xml-files, which contain additional data. The files are made in a way that they are still compatible with the software OS 6.0 and can be opened without any issues. The new filetype makes it possible to reconstruct the intended configuration of the device (flowmeter type, original linearization points, etc.) when reimporting a parameter file back into the EasyLoader. Importing classic xml-files from OS 6.0 is not supported with the EasyLoader and should still be done with the former software.



6. TROUBLESHOOTING CONNECTION ERRORS

The EasyLoader temporarily uses a higher baud rate than usual (38400 Baud) for communicating with the device in order to speed up the serial data transfer process.

When disconnecting the device before a data transfer is completed, there may be connection problems during a reconnect or when connect-

ing to the software OS 6.0.

To counteract this problem and reset the baud rate to the default value of 9600 Baud, you can right click on the bottom toolbar and select the "Repair device connection" option.

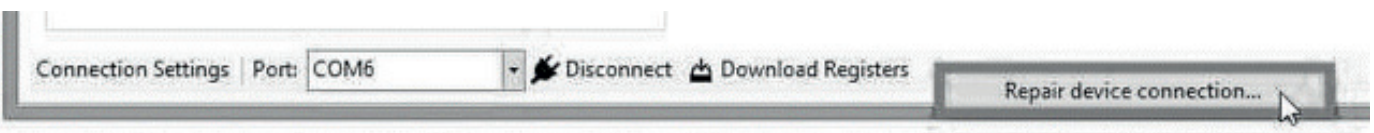


Figure 12: Option for resetting the baud rate to default settings



VSE Volutentechnik GmbH
Hönnestraße 49
58809 Neuenrade / Germany

Phone +49 (0) 23 94 / 616-30
Fax +49 (0) 23 94 / 616-33
info@vse-flow.com
www.vse-flow.com

e.holding
FLUID TECHNOLOGY GROUP
www.e-holding.de