



GRUNER

SWITCH TO INNOVATIONS

**Manual for
Win-VAV2 software**

Table of contents

Field of application	2
Safety instructions	2
Installation	3
Reading the device descriptions.....	6
Connection	8
Menu navigation.....	9
Service view	13
Operation.....	14
Configuration view	16
Parameters	17
Error handling.....	19

Field of application

The Win-VAV2 software together with the Gruner Universal Interface for Volume air flow control (GUIV) is used to set the volume air flow controllers for VAV damper manufacturers and for service.

Safety instructions

The actuators are connected via safety transformers!

The actuators may only be used for the specified field of application.

Use in aircraft is not permitted.

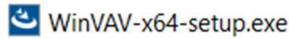
Assembly and diagnosis must be carried out by trained personnel.

The legal and official regulations must be observed during installation.

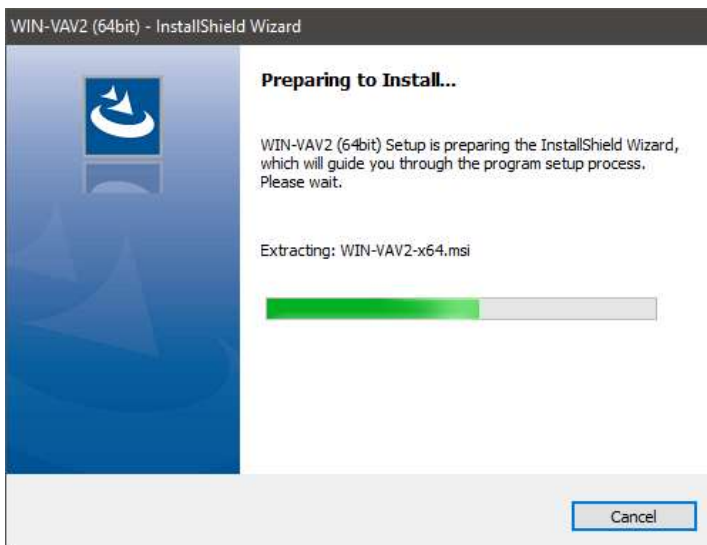
The devices must not be disposed of as household waste. The local and currently valid legislation must be observed.

There must not be double power supply between actuator and GUIV.

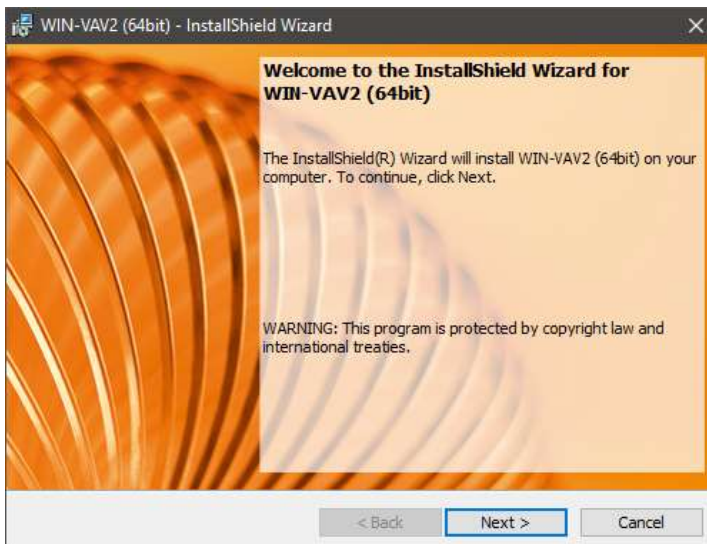
Installation



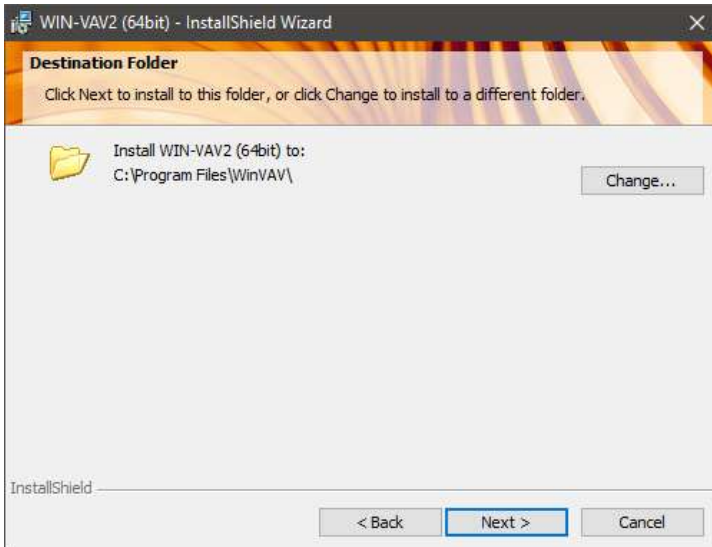
Connect the USB stick to the PC. The stick contains an installation application (.exe) and a license file. For the further steps of the installation the .exe file is required.



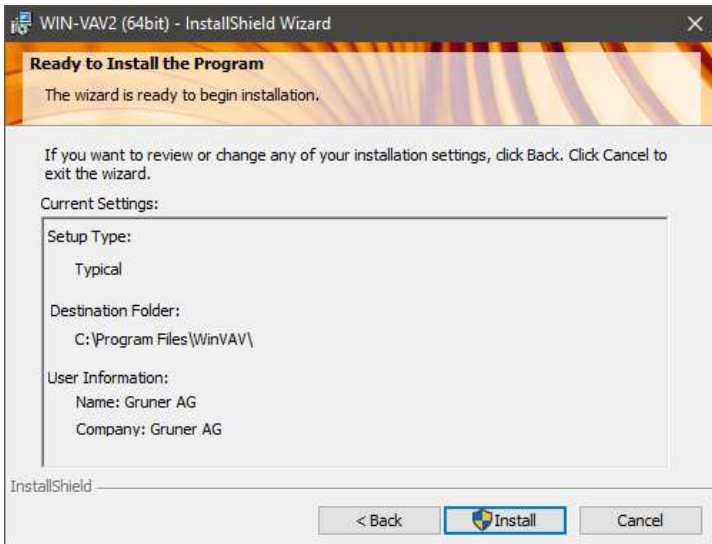
Start the program „WinVAV-x64-setup.exe“ with a double click. The preparation of the installation begins.



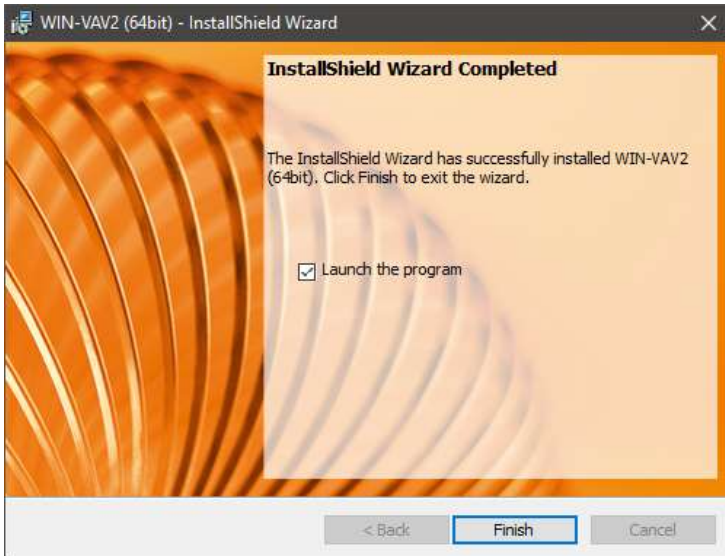
You will now be guided through the installation. After preparing the installation you have to start the installation by pressing the “Next” button.



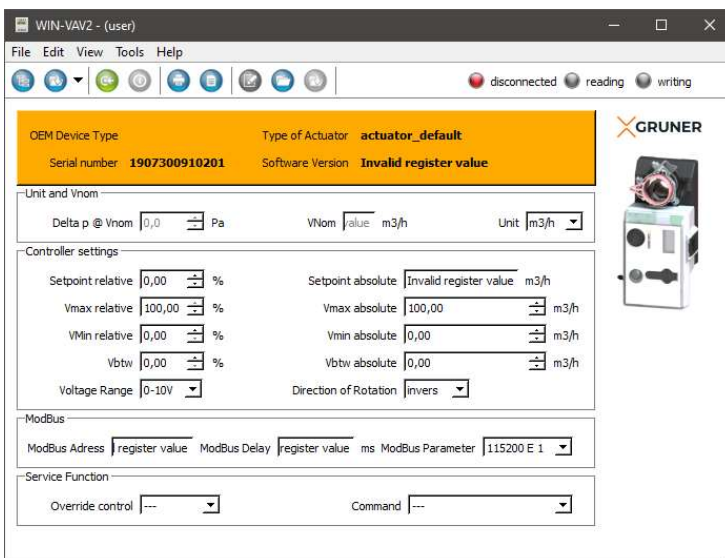
Now determine the folder in which you want to install the software.
By default the system drive is preselected.
After selecting the drive, press the “Next” field to continue the installation.



In the next step of the installation a summary will appear. Start the installation by pressing the “Install” button.



The installation is successfully completed when the following field appears. Press “Finish” to complete the installation.



After successful installation the Win-VAV2 software starts automatically.

Reading the device descriptions

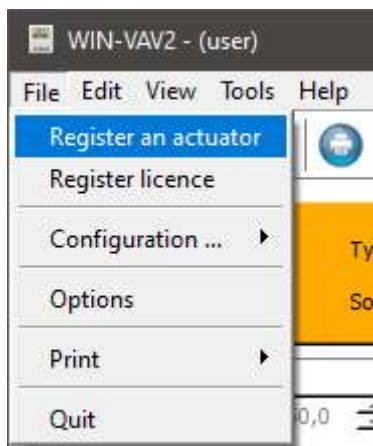
The required device description files can be downloaded via Gruner-Cloud under the following link:

<https://cloud.gruneronline.com/s/WinVAV-Configuration>

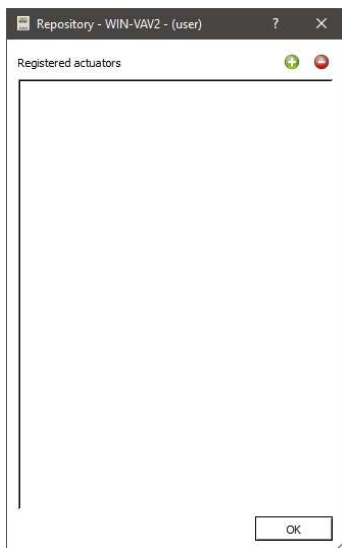
To register the file, proceed as follows:

Display

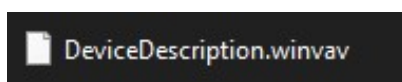
Action



Click on File -> Register an actuator



A new window opens
Click on the green +

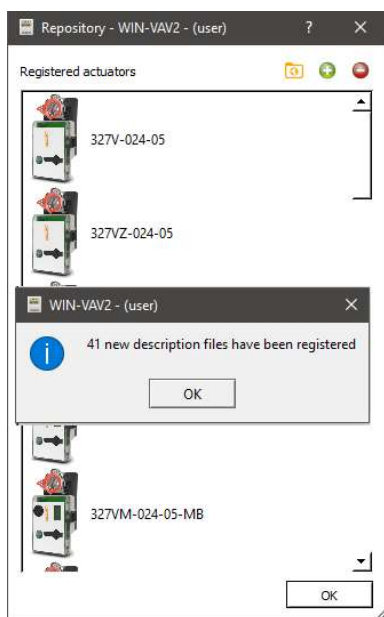


A new window will open. The previously downloaded file (DeviceDescription.winvav) must be selected.

Gruner AG

Buerglestrasse 15-17 | D-78564 Wehingen

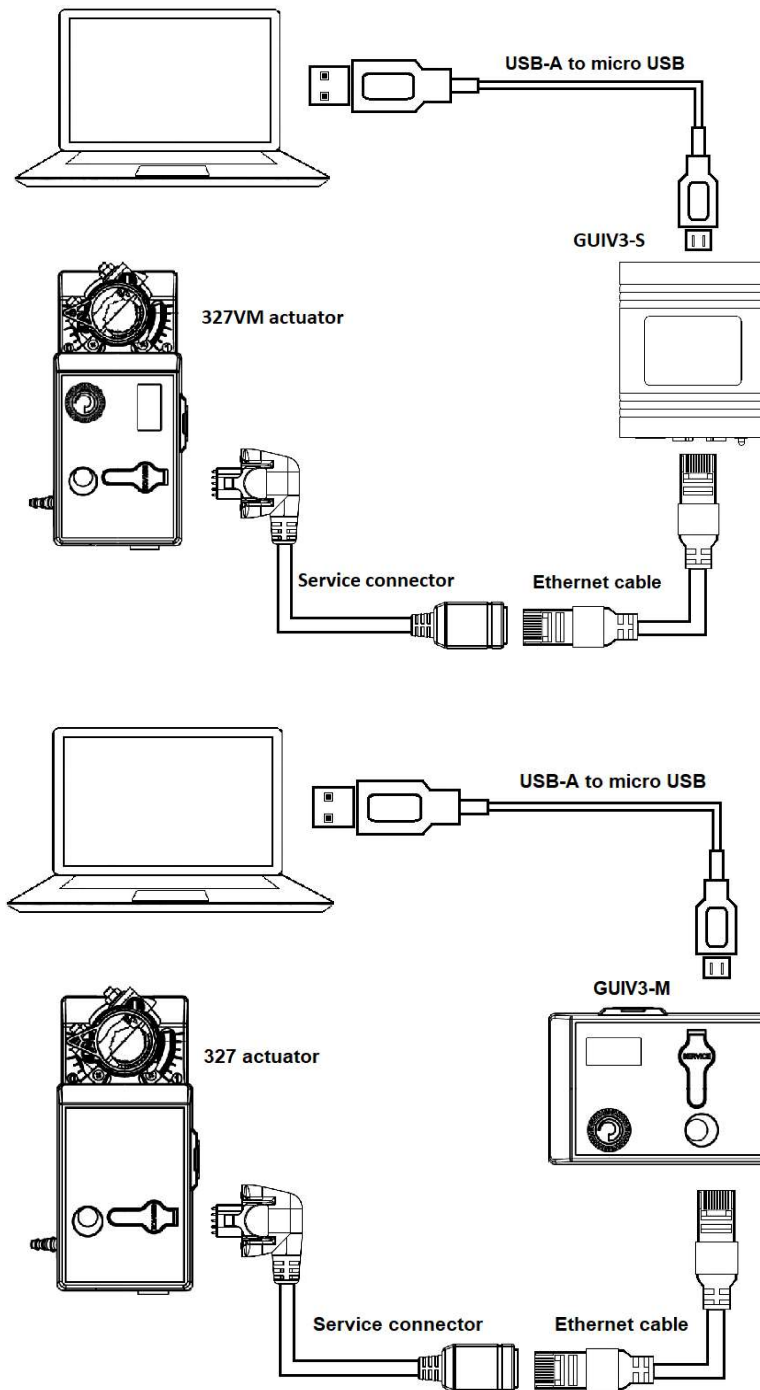
Tel: +49 7426 948-0 | Fax: +49 7426 948-200 | www.gruner.de | info@gruner.de



If the registration is successful, the following window is displayed

→ Now the actuator can be connected to the PC.

Connection

**Note:**

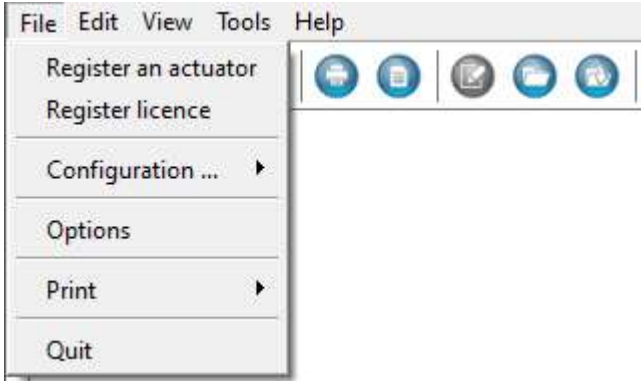
A double power supply (actuator and GUIV) is not permitted!

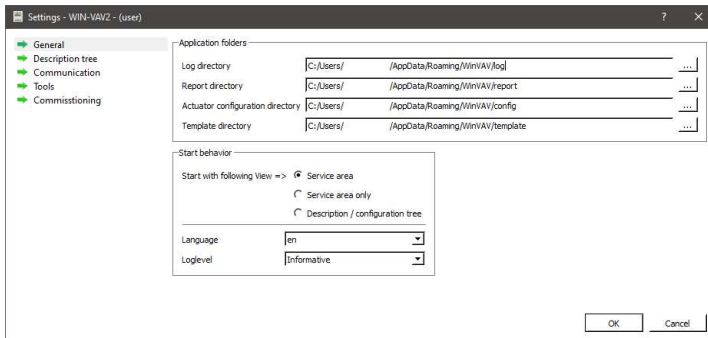
Gruner AG

Buerglestrasse 15-17 | D-78564 Wehingen

Tel: +49 7426 948-0 | Fax: +49 7426 948-200 | www.gruner.de | info@gruner.de

Menu navigation

Menu point	Description
	<p>Register an actuator: New device descriptions are added here</p> <p>Register license: Add/read a license for more access rights</p> <p>Configuration: Save a changed configuration Load a configuration as preview Load and accept a configuration (automatically write on the actuator)</p> <p>Options: See below</p> <p>Print: Printing a Calibration Document</p> <p>Quit: This will quit the Win-VAV2</p>



General:
Change storage path
Set startup behavior
Select language German (de), English (en)
Change Loglevel

Descriptions tree:
Possibility to change the display of the fonts and colors of the configuration view

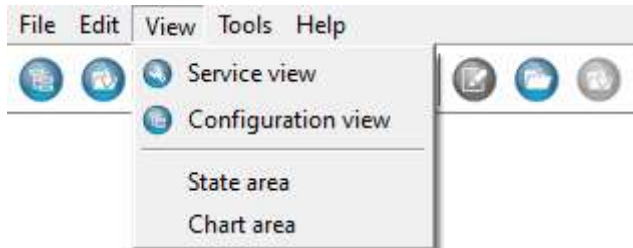
Communication:
Changing the ModBus basic settings

Tools:
Selection of the processor, when using the bootloader

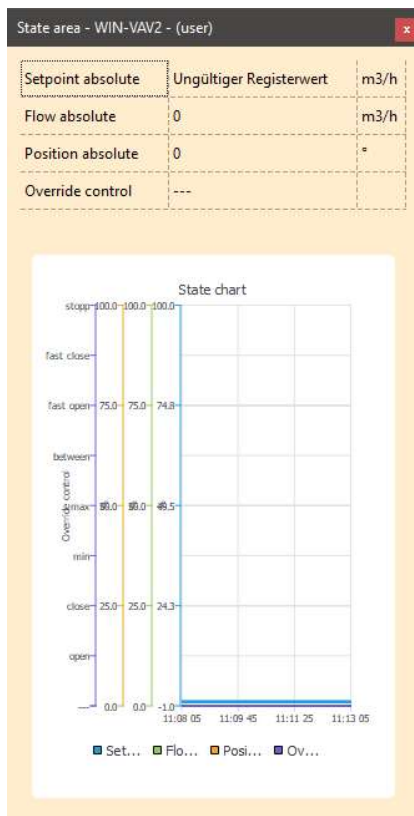
Commissioning:
Select storage path for picking files and labels



Connect or disconnect the actuator



Switch between service and configuration view

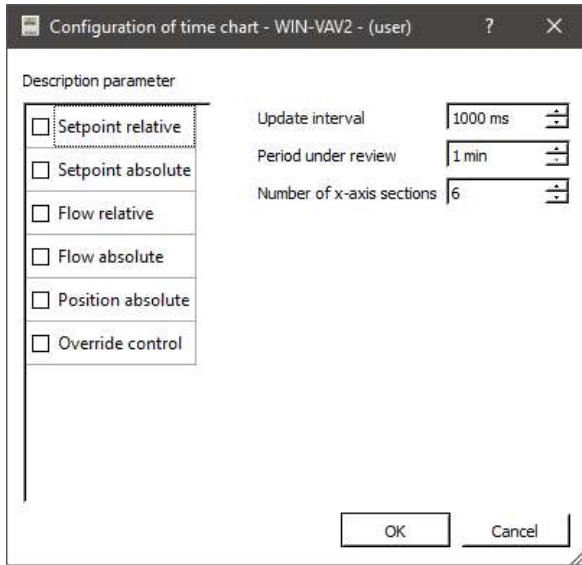


By clicking on State area the following window opens

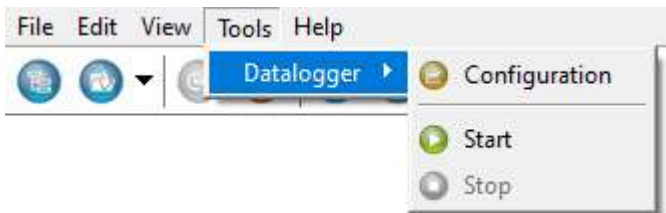
Three types of information are available here. Information on the current connection, read and write activity for the connected actuator, current status information of the actuator (tabular listing), chronological display of actuator values in the status diagram. This window can be enlarged or reduced as desired.



By clicking on Chart area the following window opens

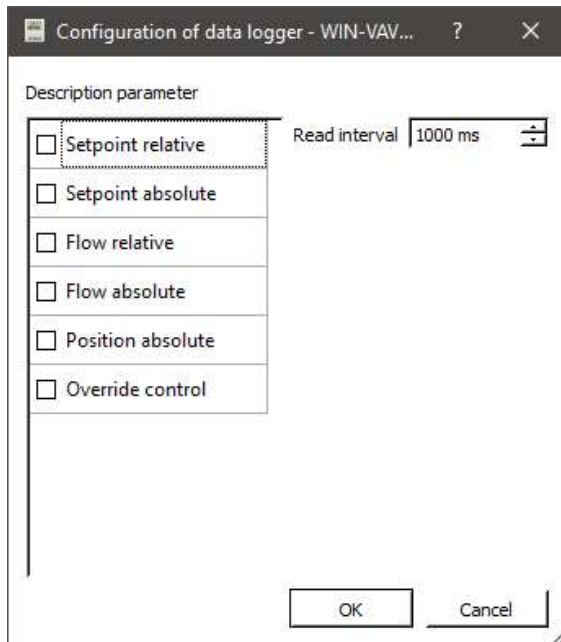


Freely selectable parameters can be displayed in this time diagram.



Datalogger

Here it is possible to record various freely selectable actuator parameters in a file (*.csv) over a certain running time.





Display of the current version of Win-VAV2 and general information



1. Switch between Service- and Configuration view
2. Open the log/report or configuration directory
3. Connect Win-VAV2 with connected actuator
4. Disconnect actuator
5. Print calibration document
6. Save calibration document as pdf
7. Save configuration file
8. Load configuration
9. Load and accept configuration

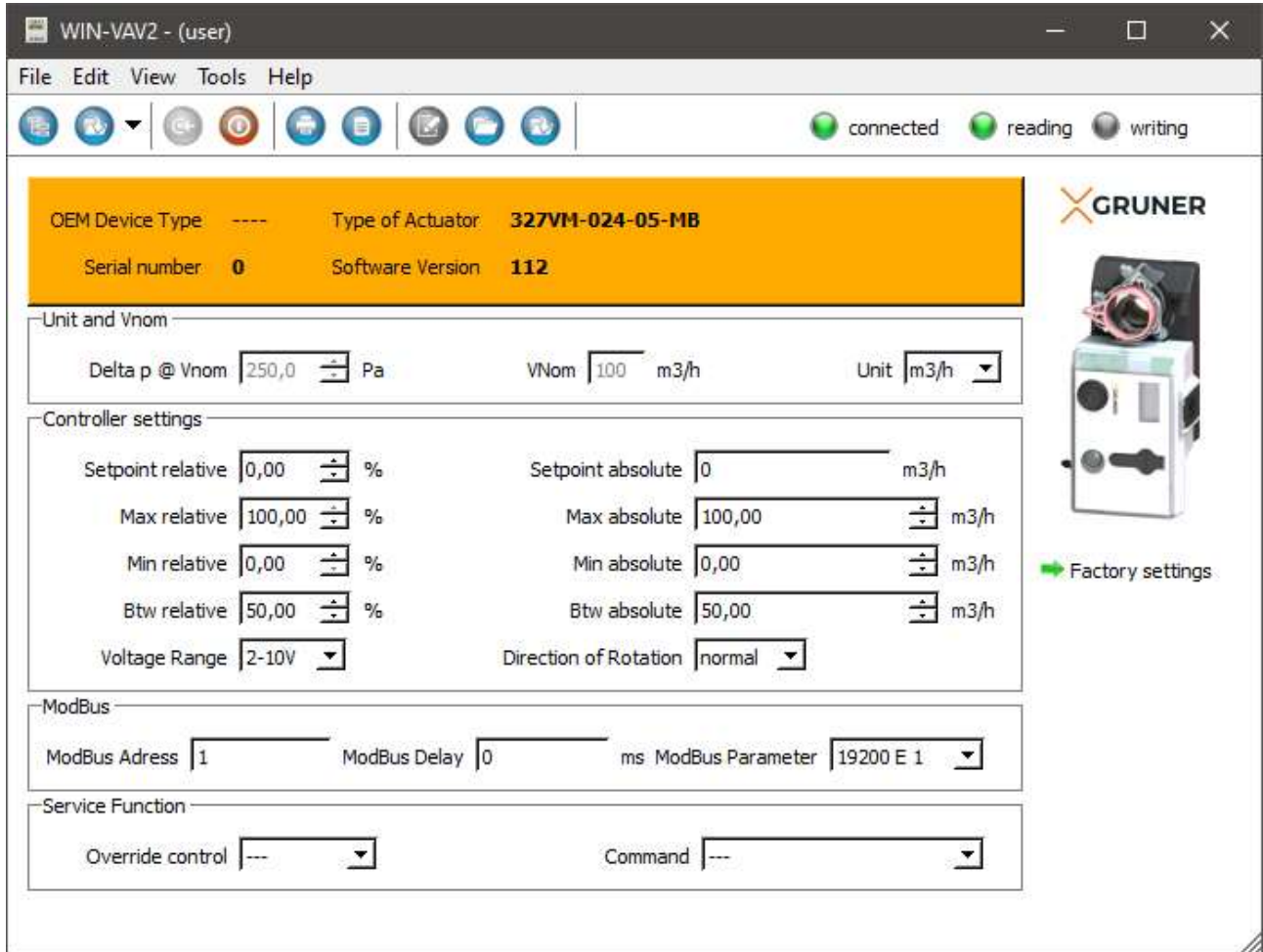


The actuator is connected to the Win-VAV2 and is read out



The actuator is disconnected to the Win-VAV2

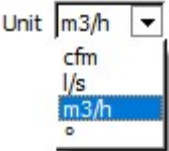
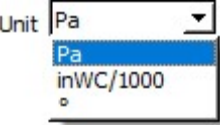
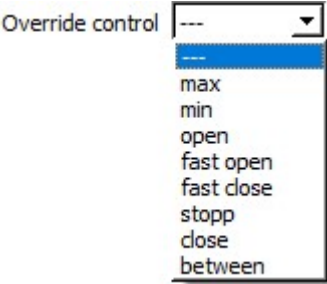
Service view



If an actuator is connected, the type (serial number and software version) is displayed. Grey-shaded parameters can not be changed.

Operation

The units can be changed using the „Unit“ parameter. A conversion of the values is done automatically in the background.

Selection	Description
	<p>Units volume air flow</p> <p>cfm: Cubic feet per minute</p> <p>l/s: Liters per second</p> <p>m3/h: Cubic meters per hour</p> <p>°: Degree</p>
	<p>Units pressure</p> <p>Pa: Pascal</p> <p>inWC/1000: inch water column</p> <p>°: Degree</p>
	<p>Override control</p> <p>Max: The actuator drives to its max value</p> <p>Min: The actuator drives to its min value</p> <p>Open: The actuator drives to position 1</p> <p>Fast open: The actuator drives with increased speed into position open</p> <p>Fast close: The actuator drives with increased speed into position close</p>

Gruner AG

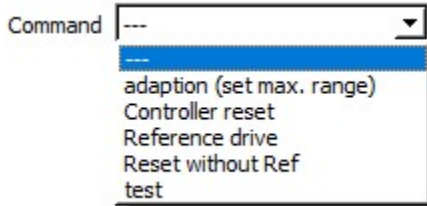
Buerglestrasse 15-17 | D-78564 Wehingen

Tel: +49 7426 948-0 | Fax: +49 7426 948-200 | www.gruner.de | info@gruner.de

Stop:
The actuator stops at its current position

Close:
The actuator drives to position 0

Between: The actuator drives to its between value



Command

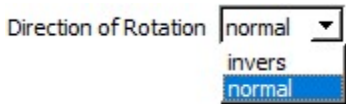
Adaption:
Starts the adaption drive (necessary for measuring for set maximum range or for adjusted end stops)

Controller reset:
Controller will be reseted (actuator restarts)

Reference drive:
Reference drive to the next end stop

Reset without Ref:
Software Reset without reference drive

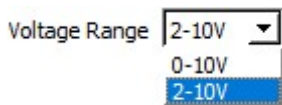
Test:
Test drive of the actuator



Direction of rotation

Normal:
clockwise

Invers:
counterclockwise

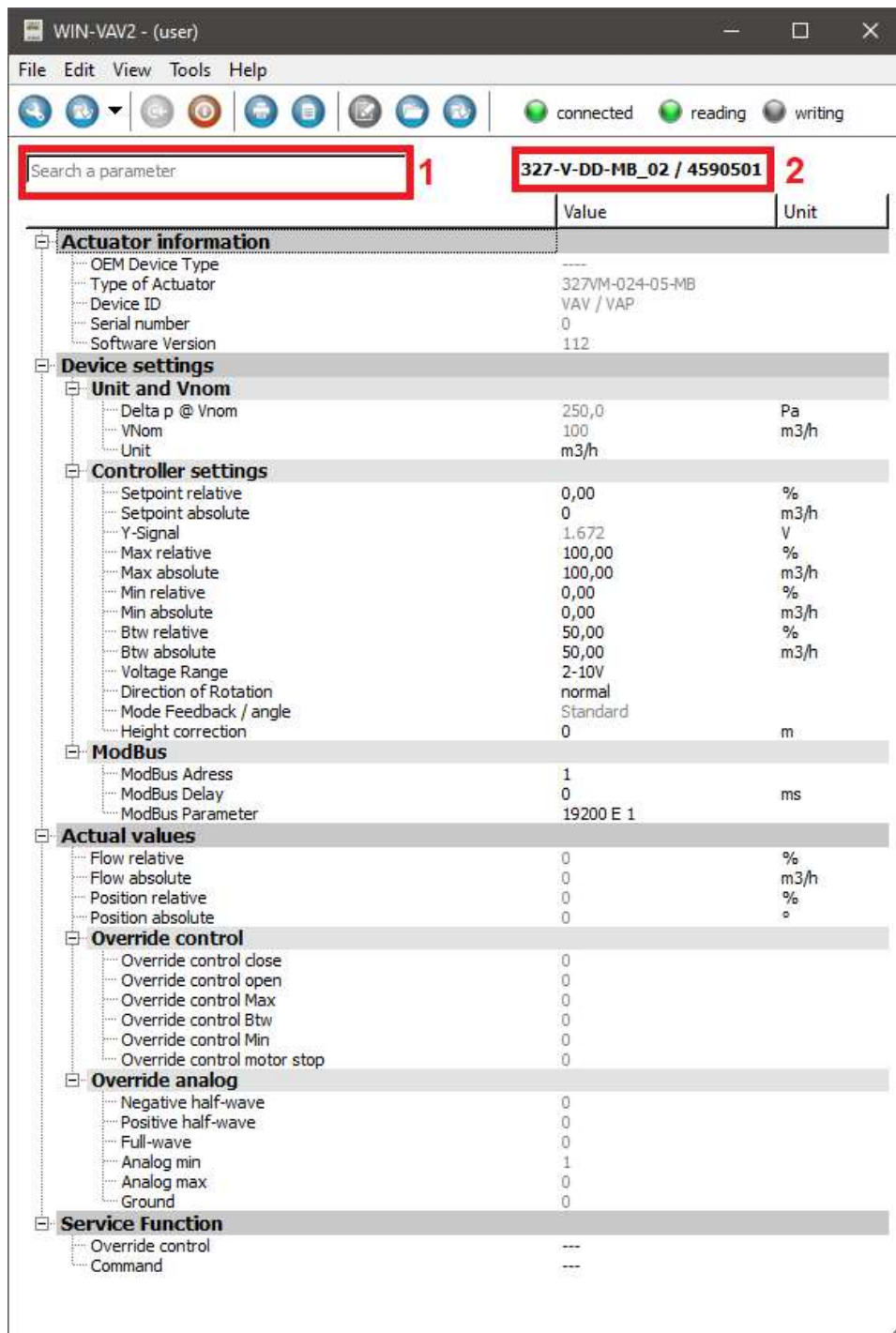


Voltage range

0-10V:
Operating mode 0-10V

2-10V:
Operating mode 2-10V

Configuration view



In this view are more parameters and commands.
 Grey-shaded parameters cannot be changed.

- 1) Possibility to search for a parameter in the configuration view
- 2) Read in device description and material number of the actuator

Gruner AG

Parameters

Parameter	Description
OEM Device Type	OEM-Description (max. 32 characters)
Type of Actuator	Type designation of the actuator
Device ID	Function type of the actuator
Serial number	Serial number of the actuator
Software version	Software version of the actuator
Delta p @ Vnom	Differential pressure [Pa] depending on VNom
VNom	Nominal volume air flow
Unit	Adjusted unit
Setpoint relative	Display of the setpoint[%]
Setpoint absolute	Display of the setpoint
Y-Signal	Input signal (0/2-10 V)
Max relative	Maximum volume air flow [%] Upper max value depending on Vnom
Max absolute	Maximum volume air flow
Min relative	Minimum volume air flow [%] Lower limit value depending on Vnom
Min absolute	Minimum volume air flow
Btw relative	Between volume air flow [%]
Btw absolute	Between volume air flow
Voltage range	Selection of operating mode 0-10V or 2-10V
Direction of rotation	Sets the direction of rotation for the open/close movement Normal: 0 -> 1 (clockwise) Invers: 1-> 0 (counterclockwise)
Mode Feedback Standard / Angle	Feedback signal in the corresponding unit or angle
Height correction	Correction factor for dynamic sensors
ModBus Address	ModBus Address (1-247)
ModBus Delay	Delay (0-765 ms)
ModBus Parameter	ModBus parameters can be changed (Standard: 19200 Bd, even parity, 1 stop Bit)

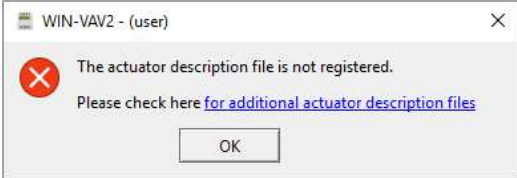
Gruner AG

Buerglestrasse 15-17 | D-78564 Wehingen

Tel: +49 7426 948-0 | Fax: +49 7426 948-200 | www.gruner.de | info@gruner.de

Flow relative	Display of the relative volume air flow [%]
Flow absolute	Display of the relative volume air flow
Position relative	Display of the position [%]
Position absolute	Display of the position [°]
Override control close	The actuator closes the damper
Override control open	The actuator opens the damper
Override control Max	The actuator controls to the max value
Override control Btw	The actuator controls to the btw value
Override control Min	The actuator controls to the min value
Override control motor stop	The actuator stops at its current position
Negative half-wave	Status is displayed when activated
Positive half-wave	Status is displayed when activated
Full-wave	Status is displayed when activated
Analog Min	Status is displayed when activated
Analog Max	Status is displayed when activated
Ground	Status is displayed when activated
Override control	Selection of the different override control parameters (max, min, open, fast open, fast close, stop, close, between)
Command	Selection of the different commands (Adaption drive, Reset controller, Reference drive, Reset without Ref, Test)

Error handling

Problem	Solution
Actuator does not connect	<ul style="list-style-type: none">- Check COM-Port- Check ModBus Parameters- Check cables
	Download the DeviceDescription.winvav on the Gruner Cloud https://cloud.gruneronline.com/s/WinVAV-Configuration
Actuator does not drive	<ul style="list-style-type: none">- Check power supply at actuator or GUIV- Start adpation drive
Actuator has wrong parameter values	Click on factory settings (below the actuator picture in the service view) Parameters Min, Max, Btw, direction of rotation will be reseted to factory settings

