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MANUAL for Installation and Use of the UHV-LEakvalve Controller Software

UHV-LEAKVALVE ND 3

Steppermotordriven

CE

Controller	F3-434
	F3-434HR

Version: B

CONTENT Page

1. APPLICATION

This Manual describes the installation and the use of the UHV Leakvalve with its Controller equipped with RS-232 and the corresponding software from VSE.

The valve with its Controller can be operated with the software “Hyperterminal”, availavle from the Operating System. The here offered software is more comfortable to use.

2. COMPATIBILITY

This program runs under Windows 2000 (SP4), Windows XP-Home (SP2) and Windows-XP-Professional (SP2). Other Operating Systems from the Windows-family are possible too, but VSE does not garantee. One valve can be operated by this software

3. DOWNLOAD AND INSTALLATION

This Software is available for free and can be downloaded from the VSE Homepage: Click under www.vseworld.com on “DOWNLOAD CENTER”, then “DOWNLOAD Software for UHV-LeakValve Controller with RS-232”.

The following 4 files will be downloaded in a WinZip file:

VSE-LeakValveControl.exe	248 KB	Application
mfc70.dll	1.000 KB	Program library
msvcr70.dll	332 KB	Program library
MANUAL.pdf	84 KB	Adobe Acrobat Reader

These 4 files must be expanded and stored into a newly created register of the PC. We recommend: C:\\VSE-LeakValve. But any other name will work too.

The once started software will use this register and will create two new files „settings.vse“ and „sequences.vse“, with a volume of just some KB.

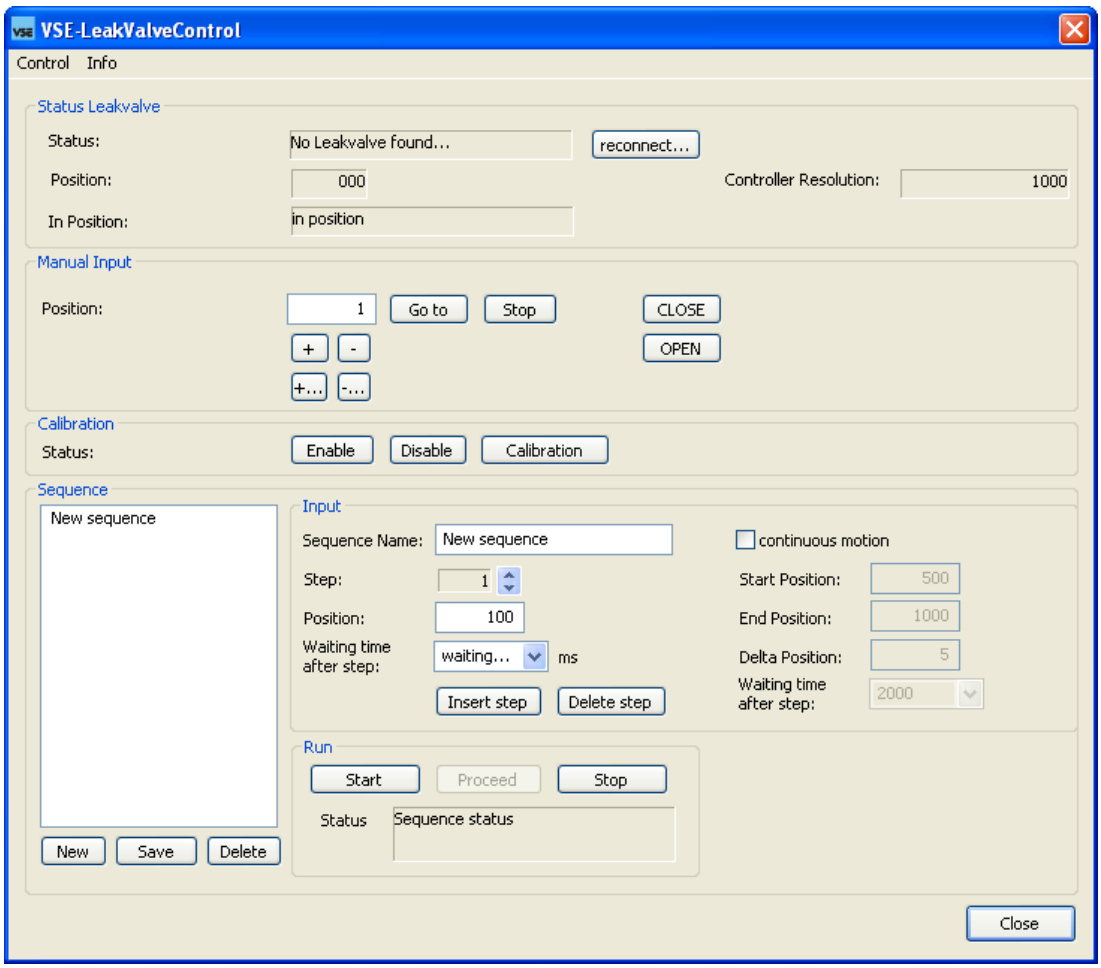
4. WARRANTY

VSE accepts no warranty for faultless function neither of this software, nor for the correct work between this Software, the PC and the Controller. Additional no warranty is accepted for any faults of other components of the PC.

This Software must not be used for other applications, other controllers or other stepper motors.

5. DESKTOP WINDOW

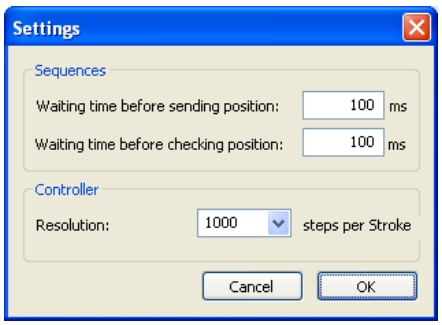
The following window opens at doubleclick on the „VSE-LeakValve.exe:



Main menu:

→Control

→Settings...



A window „Settings“ opens. In the Sequences section the waiting time „...before sending position“, and „...before checking position“ can be adjusted. We recommend:

100 ms

10 ms

The standard settings are 100 ms each.
This waiting time depends on the used PC and its components. It refers only to waiting time between steps of a Sequence. If sequences don’t run properly, please increase these settings.
In the controller section the resolution of the controller is defined. You can choose between 1000 (for F3-434) and 10000 (for F3-434HR) steps per Stroke. The chosen resolution has to match the resolution of the control unit.

→Info

→Manual...

This Manual opens. If the user's PC does not have the Adobe Reader, it can be downloaded at www.adobe.com.

→About...

The version of this software will be displayed.

Status Leakvalve

Status:	Search Leak Valve...
	No Leakvalve found…
	Motor in manual mode… (if the Controller has been switched to "MANUAL")
	enabled
	disabled
	Motor running...
	Motor stopped...
Position:	The current position is in the display. Number between 1 (valve closed) and 1000 (valve open).
In Position:	NOT in position
	In pos
reconnect…	Searches for a connected and switched-on UHV-Leakvalve.
Controller Resolution	Shows the steps per stroke specified in the Settings Dialog (see above). The chosen resolution has to match the resolution of the control unit.

Manual Input

Position:	Input for the requested position. Numbers between "1" (closed) and "1000" (open)
Go to	Starts the motor, valve runs to the position given in the field "Position:"
Stop	The run can be interrupted at any time.
+	Increases by 1 step in direction open.
-	Decreases by 1 step in direction close.
+...	Increases in direction open, until the button is released. Not full velocity.
-...	Decreases in direction close, until the button is released. Not full velocity.

Calibration

Status:

Enable	Switches on the motor current. All controls are possible.
Disable	Switches off the motor current. No controls are possible. Valve stands.
	It can be necessary to put away any current, if sensitive gauges, sensors or experiments are under progress.
Calibration	All control is out of order. The valve runs with half speed (20 sec for the whole stroke) in direction closed, until the closed endposition is reached. The Controller writes this position into an internal memory. Once the system is calibrated, no more calibration is necessary. Also if the system is switched off for long time, it is not necessary to do recalibration.

Sequence

In the window left side can be created, safed or deleted any sequence.

New	Creates a new sequence. The name can be modified in „Sequence Name:“.
Save	Safes all sequences in the list.
Delete	Deletes the choosed sequence. A window opens: “Do you want to delete this sequence?”

Input

Sequence Name:	This is the actual sequence in use.
Step:	Up to 100 steps can be programmed.
Position:	The choosed position corresponding to the actual step. Any numbers between “1” (closed) and “1000” (open) are possible.
Waiting time after step:	Time in milliseconds, during which the motor stops (after it reached its requested after position). “waiting…” can also be chosen. In that case the run of the sequence stops until the button “Proceed” is pressed.
Insert step	Press to insert a new step after the one in the display.
Delete step	Press to delete the actual step in the display. All subsequent steps will shift forward.

Continious Motion

Continoious motion	If you check this checkbox, the continuous motion is performed when pressing the start button. If not the chosen sequence is performed (see above). A continuous motion starts at the start position and ends at the specified end position, stopping at positions continuously added or subtracted (depending on wether the start position is bigger than the end position) to the current position. At each stop the waiting time after step ahs to be passed before the motion continues.
Start position	Position, from which the motion starts. If start position is bigger than end position the motion closes the valve and delta position is subtracted after each positioning process.
End position	Position, where the motion ends. If start position is bigger than end position the motion closes the valve and delta position is subtracted after each positioning process.
Delta position	Number of steps, that is added to the position after the waiting time has ended. It must be smaller than the difference of start and end postion.
Waiting time after step:	Time in milliseconds, during which the motor stops (after it reached its reqested after position). After that time, the motor drives to the next position, which is current position plus or minus the delta position.

Run

Start	Starts the sequence displayed in the field „Sequence Name:“, starts with step 1. If the check box continuous motion is checked, the continuous motion is performed.
Proceed	Is activated only in sequence mode and if the button „Stop“ was pressed previously, or if the sequence stopped on „waiting...“ and waits to be continued.
Stop	Interrupts the sequence or the continuous motion at the actual position. This can be during the run of the motor, or during a waiting time, programmed in the field „Waiting time after step:“.
Status	Is the feedback from the actual sequence while running.

Button Close	Closes the program and window.

6. CONTACT

If you have any questions regarding this or other products, here is our contact information:

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