



OpenAir™

PC Software for VAV compact and modular controllers **ACS941**

for use with GDB/GLB/ASV181

For Version 3.02

The ACS941 software is used for setting and displaying the parameter values with the help of a PC. It is designed for use with the following types of controllers:

- VAV compact controller **GDB181..**
- VAV compact controller **GLB181..**
- VAV modular controller **ASV181..**

The connection between PC and VAV compact controller is made via the AST11 interface converter.

Ordering and delivery

The ACS941 software can be downloaded under following link:
www.siemens.com/openair

System requirements

- Operating system: Windows XP, Vista or 7
- USB- or RS-232 port

Notes for the user

Naming convention

Designation of VAV compact controller will be used for VAV compact controllers G..B181.1E/.. and VAV modular controller ASV181.1E/3 correspondingly.

To enable the software to be used, the AST11 interface converter (to be ordered as a separate item) must be connected to a VAV compact controller on one side and the USB or serial RS-232 port of a PC on the other side.

The connection between AST11 interface converter and VAV compact controller is to be made with one of the connecting cables supplied with the AST11 (refer to Data Sheet N5852).

When power is applied to the interconnected devices, the VAV compact controller will be ready for operation after about 5 seconds, enabling parameter settings or readouts to be made.

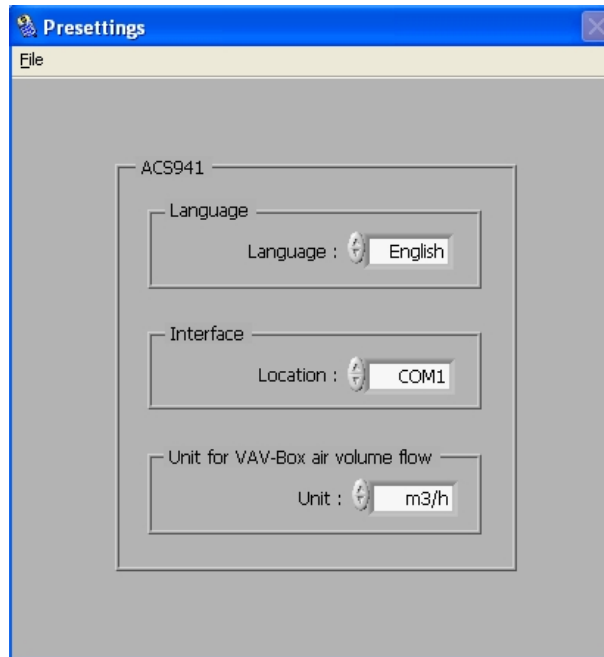
The functions provided are matched to the controller type GDB / GLB / ASV181.1E/3.

Main window "ACS941"



Menu Submenu	Meaning
File <i>Exit</i>	Leaving the program.
Edit <i>Presettings</i>	Opening dialog box "Presettings".
Start	Opening dialog box "VAV - Online".
Trend	Opening dialog box "Trend - Online" / "Trend - Offline".
Info	Information about the ACS941 version and software version of the VAV compact controller.

Dialog box "Presettings"



Group box	Meaning
ACS941	User settings.
<i>Language</i>	Selecting the language (de/en/fr) for the dialog.
<i>Interface</i>	Selecting the port on the PC.
<i>Unit for VAV-Box air volume flow</i>	Selecting the unit of air volume flow (m ³ /h or l/s).
Menu / Submenu	Meaning
File <i>Exit</i>	Back to the main menu.

Dialog box "VAV - Online"

Group box	Meaning
Project	Display and entry box for archiving project data.
VAV	VAV parameters.
<i>Set values</i>	VAV parameter values.
<i>Reference values</i>	Backup parameter values from the manufacturer.
<i>Measured values</i>	Display of setpoints and actual values, pressure differential and air volume flow.
<i>Info</i>	Showing waiting times and status information.
Calibration	Control functions.
Control	Functions for setpoint preselection.

Menu / Submenu	Meaning
File	Project handling.
<i>Open Project</i>	Opening the archived project.
<i>New Position</i>	Opening an existing project position.
<i>Exit</i>	Back to the main window.

Project


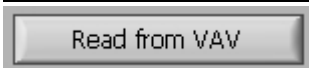
Project-specific data can be displayed in this box (retrieved via *File* | ...).

Display box	Action
Project: <input type="text"/>	Display of project name.
Position: <input type="text"/>	Display of the position (mounting location).
Siemens Controller: <input type="text"/>	Display of type of Siemens VAV compact controller.
Manufacturer Designation: <input type="text"/>	Display of type of air volume controller.

Special feature:

Using *File | Open Project* and *File | Load Position*, archived parameter values can be loaded to the air volume controller for checking purposes. If the values loaded by VAV compact do not accord with the archived values, the relevant boxes for the reference values will be highlighted in red. The values loaded by VAV compact will be maintained.

VAV





Button	Action
	When clicking on "Send to VAV", the values displayed in group boxes "Set values" and "Reference values" will be downloaded to the VAV compact controller and then verified.
	When clicking on "Read from VAV", the data saved in the VAV compact controller will be loaded back to group boxes "Set values" and "Reference values".

Info

When clicking on "Open fully" or "Close fully", information about the waiting time will be highlighted in red. An adaptation of the rotation angle will be highlighted as well.

VAV compact controllers till run D highlight also a zero-point calibration.

Calibration



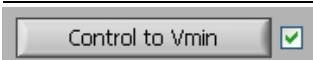
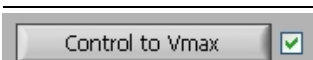
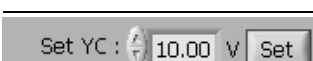
Button	Action
	Actuator will travel to the fully open position (depending on the selected direction of rotation).
	Actuator will travel to the fully closed position (depending on the selected direction of rotation).
	Actuator will stop.
	VAV compact controller will switch to control mode. Note: This mode depends on the parameters set and on the input signals applied (Y1, Y2, YC).

Control

Control is used for analog or digital preselection (overriding by the PC software) of the air volume flow setpoint. A choice of 2 modes is available: "YC (Facility)" and "YC (SW-Tool)".

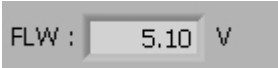
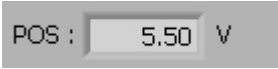
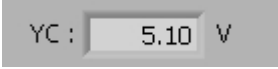
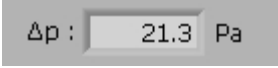
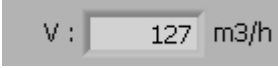
On startup, "YC (Facility)" will be activated as the standard setting. Setpoint preselection is made via an analog signal at input "YC" of the VAV compact controller.

If a change from digital "YC (SW-Tool)" to analog "YC (Facility)" setpoint selection is made during operation, the waiting time will be 70 seconds.

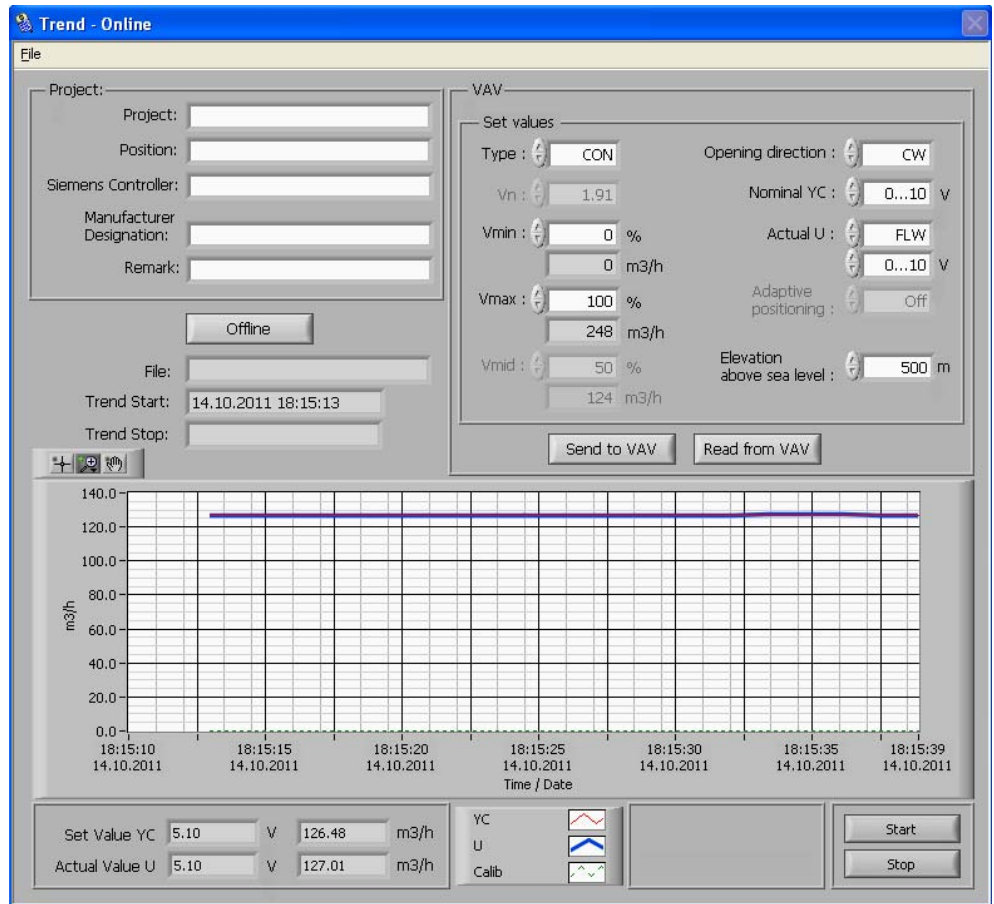
Button	Action
	For analog preselection of the air volume flow setpoint.
	For digital preselection (overriding by PC software) of the air volume flow setpoint. The associated buttons are active only if the following conditions are satisfied: <ul style="list-style-type: none"> • VAV compact operating mode "CON" has been selected • Button "YC (SW-Tool)" in group box "Control" has been clicked • Button "Control" in group box "Calibration" has been clicked
	The VAV compact controller maintains the " \dot{V}_{min} " value (set values).
	The VAV compact controller maintains the " \dot{V}_{max} " value (set values).
	Manual preselection of the digital setpoint: Range DC 0...10 V, resolution 0.05 V. If a change to digital setpoint preselection is made, the setpoint is to be entered here.

Measured values

Measured values are used for displaying the actual value, the setpoint, the differential pressure and the air volume flow.

Display box	Action
	Air volume flow output voltage (if Actual U is set to FLW).
	Damper position output voltage (if Actual U is set to POS).
	Adjusted analog or digital air volume flow setpoint in Volt.
	Differential pressure in Pascal.
	Air volume flow in m ³ /h or l/s

Dialog box “Trend - Online“ / “Trend - Offline“



Group box, button	Meaning
Project	Display and entry box for archiving the project data.
VAV	VAV compact parameters.
Set values	VAV parameter values.
Trend ...	Displaying graphs, date and time of day of start and stop, file name and current measured values (online).
Offline	Changing from online to offline mode.
or	
Online	Changing from offline to online mode.
Start	Starting trending. Important: When started, previous recordings will be deleted. Therefore, be sure to save them under <i>File Save Trend!</i>
Stop	Stopping trending.

Menu / Submenu	Meaning
File	Project handling.
Open Project	Opening the archived project (online only).
Load Position	Opening the available position in the project (online only).
Open Trend	Loading the archived trend (offline only).
Save Trend	Saving the measurement (online only).
Print ...	Printing the contents of dialog box "Trend (...)".
Exit	Back to the main window.

Online mode

When accessing dialog box "Trend - ..." and the VAV compact controller is connected, the parameter values will automatically be loaded by the controller and displayed under "Set values" and "Reference values".

In group box "Project", information about the project for generating the measuring documentation can be entered in the relevant boxes.

Note:

Prior to starting a measurement, ensure that previous recordings will be saved under *File | Save Trend*.

Special feature:

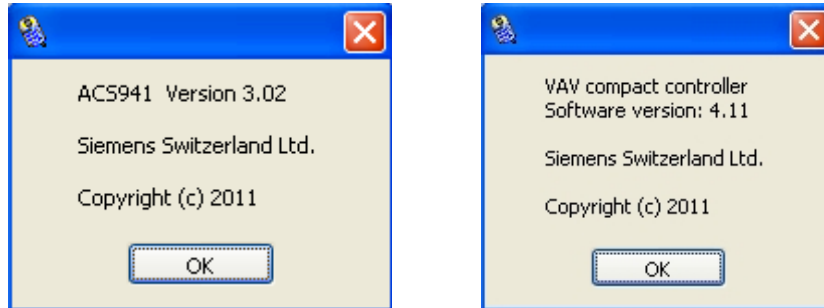
Using *File | Open Project* and *File | Load Position*, archived parameter values can be loaded to the air volume controller for checking purposes. If the values loaded by VAV compact do not accord with the archived values, the relevant boxes for the reference values will be highlighted in red. The values loaded by VAV compact will be maintained.

Offline mode

When using this mode, archived measurements can be displayed and printed at any time.

Dialog box "Info"

This dialog box provides information about the installed version of the PC software and the software version of the VAV compact controller. Example:



If there is a need to ask for support, please have the following information at hand:

- Type and version of the ACS941 PC software
- Type, run and software version of the VAV compact controller