

**Translation of Original Operation Instructions** 

## LTG Air-Water Systems

### LTG Decentral

# HMI service tool for Climatix-controller (from software version 4.18)





For decentralized ventilation units FVS



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LTG Comfort Air Technology
Air-Water Systems
Air Diffusers
Air Distribution

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#### 1. View of unit



Via service tool HMI the set operating modes, and setpoints may be indicated. Having entered your password you may also use the service tool HMI to change control parameters (after consultation with the manufacturer).

#### 2. Connection HMI service tool

#### 2.1 FVS-600 (version 1)



2.2 FVS-1000 and FVS-600 (version 2)



Connect the HMI cable to the Climatix controller (RJ45 connection, see illustrations).

After correct connection, the start page appears with an overview of all important data (see chapter 3).

#### Menu overview



#### 3. Menu overview

After connecting the HMI service tool, the general view with the current values is displayed.

You can scroll up or down here by turning the selection switch.

The first 3 or 4 (with time switch program ZSP) lines describe the operating mode specification of the corresponding connected options.







- TIMER PROGRAM is the time switch program.
- COMMUNICATION is a network connection (Modbus, BACnet, HMI4WEB or KNX process bus).
- EXTERN
- is the room control unit or a control panel.
- MANUAL

is the HMI. All operating modes switched here should be set to INACTIVE again once the work has been completed.

- ANLAGE

describes the operating mode being executed.

- STATUS

describes the current status of the unit.

- WINDOW

describes the current status of the window contact.

- The **temperatures** listed below are set or actual values, as are the specifications for **flaps** and **valves**
- CO<sub>2</sub> VALUE

indicates the current CO<sub>2</sub> value.

- The values for the **fans** indicate the air flow rate the fans are conveying.

#### FVS-600

- The KOMMULVOLUMEN indicates the total flow rate already conveyed by the unit. FILTER RESET and FIL-TER are values for filter maintenance.

#### FVS-1000

- Sply Filter and Exh Filter indicate the status of the fresh air and the exhaust air filter.
- DIGESTORIUM

indicates whether a connected digestorium (air extractor) is on or off.

- PASSWORD ENTER

is the option to enter a password.



#### 4. Password level, password functions

#### 4.1 Password entry

To access the password functions, the cursor must be on **PASSWORD ENTER**. Press the selection switch to open the password entry function.



The password level is opened by entering the password **2000**.

To do this, turn the selection switch to the corresponding numbers and press to confirm.

The password level now appears.

#### 4.2 Password level overview



- TEST ROUTINE

The function of the fans, outside air flap and bypass flap can be checked here.

- SCHEDULE (TIMER PROGRAM) Activate and set a timer program.
- OPTIONS

Overview, activation or deactivation of individual options.

- BUS FANS Overview of the fans.
- SYSTEM OBJECTS General overview of system data

#### 4.3 Timer program (ZSP)

Attention: When activating the timer program, the jumper between D1 and M on the CLIMATIX controller must first be removed (see relevant FVS circuit diagram).

Info	4 Options		•
	CO2-Sensor?		Yes 🕨
	Timer Program		Activ V
	Save Cancel		
		FRC	ок

Turn the selection switch to  $\ensuremath{\mathsf{OPTIONS}}$  and press to confirm.

#### Set the timer program to ACTIVE.

Info	4	Options		
		CO2-Sensor?	Yes	Þ
		Reheater?	Elec	Þ
		Timer Program	Activ	Þ
		Nach einer Änderung ist ein Restart nötiglil		
		Restart	Normal	•
		Esc	(	ок

#### A restart must then be carried out.

After the unit has restarted, press the ESC button to return to the password level.

Info	4	Timer Program				
		Present value		Kom		^
		Monday		Night		
		Unit1CopyShed.Pls		Off	Þ	
		EndDay		5	Þ	
		Tuesday		Comfort		
		Wednesday		Comfort	•	
		Thursday		Comfort		
		Fridav		Comfort	•	-
-						OK
Ģ			ESC			

Now go to the timer function and press to confirm.

After activation, a time switch is already stored (see illustration). This preset programming can be changed.



Info	4	d Monday			
		Time 1	<u>00 : 00</u>	Þ	
		Value 1	Night	Þ	
		Time 2	06:00	Þ	
		Value 2	ForcedCom	Þ	
		Time 3	07:00	Þ	
		Value 3	Comfort	Þ	
		Time 4	22:00	Þ	
		Value 4	Night	Þ	-
•					OK

#### Continuation 4.3 Timer program (ZSP)

Select Monday and enter the desired data.

Press TIME 1 to set the start time of the operating operating mode, which is specified in VALUE 1, can be set. Now enter the desired operating mode in VALUE 1.

Repeat the procedure with **TIME 2**, **VALUE 2** etc. until the day is fully programmed. Press **ESC** to return.

If the same values are to apply to all days, this can be transferred to the other days using the copy function **EndDay** (number of days, e.g. 5 for Monday to Friday) and **Unit1CopyShed.PLS**.

Info	4	Timer Program				
		Present value		Kom		
		Monday		Night		
		Unit1CopyShed.Pls		Off	Þ	
		EndDay		5	Þ	
		Tuesday		Comfort		
		Wednesday		Comfort	•	
		Thursday		Comfort		
		Fridav		Comfort	•	-
0			F00			ОК
JЧ			ESC	1		

To do this, set Unit1CopyShed.PLS to ON.

After a restart, the set times are active.

#### 4.3.1 Exceptions and special days

If an operating mode is not desired in certain periods, this can be realised by setting the **Exception** and **special days** (e.g. no night ventilation in winter).





To do this, enter the new times and values under **Exception**.

Info	4	Time switch prog			•	
		Timer Program Special Days		Active Passive	•	•
¢			ESC			ок

The special days can be set by activating them. The period for the validity of the exception is defined here.





Continuation 4.3.1 Exceptions and special days

Go to Range at +Choice-1.

Set (start)date and end date accordingly.

All other selections must be set to **Inact**.

#### 4.4 Options



The individual options are activated or deactivated here.

Note: If a digestorium is present, the reheater must be activated in order to activate the display for the digestorium.

The set options are active after a restart.

#### 4.5 Parameters

Setpoints for the system can be changed here.



#### 4.5.1 Fans



Sollwerte Abluft			
The second se			
Exh Comfort	600m3/h	Þ	
Exh Eco	400m3/h	Þ	
Exh Night Vent	400m3/h	Þ	
Exh Min	300m3/h	Þ	
AbMinEReg	400m3/h	Þ	
ExhFan1.Ramp	100	Þ	-
E	sc		ок
	Exh Comrol C Exh Night Vent Exh Min AbMinEReg ExhFan1.Ramp	Exh Comrol C 600ms/h Exh Eco 400m3/h Exh Night Vent 400m3/h Exh Min 300m3/h AbMinEReg 400m3/h ExhFan1.Ramp 100	Exh Comrol C 400m3/h Exh Night Vent 400m3/h Exh Min 300m3/h AbMinEReg 400m3/h ExhFan1.Ramp 100 ESC

The setpoint values for the supply and exhaust air volume flows can be set here.

Info	4	Fans				
		ExhFan1.Ramp	100		Þ	1
		AblDigestDiff	430.0m3	i/h	Þ	
		MinValCrv	200 m3	8/h	▶	
		MinOut	20 %	6	▶	
		MaxValCrv	600 m	8/h	▶	
		MaxOut	85 9	6	•	Ţ

It is also possible to set the exhaust air for a connected digestorium here.



#### 4.5.2 Setpoint CO<sub>2</sub>



Menu for setting the switch-on and switch-off values for CO<sub>2</sub> operation.

Note: COM Sp Off is the difference to the switch-on value.

#### 4.5.3 Sensor definition

Info	4	Sensor definition	on			
		CO2 bei 10V	20	900 p	opm 🕨	
		1				ОК
			ESC			

Setting the **measuring range** of the  $CO_2$  sensor (technical data sheet of the sensor). Standard is **2000 ppm**.

#### 4.5.4 Temperature setpoints



The temperature setpoints can be changed here.

#### 4.5.5 Delay times

Various control times can be set:

Info	4	Delay times			
		Time To Run	60	s	Þ
		Overrun	3	min	▶
		OverrunIOBoard	3	min	•
		CommandExtTimeComma	0	min	Þ
		Kick Time	10	min	Þ
		Kickpause	80	min	Þ
					OK
Q Ω		ESC		(	OK

- Time to run

Time after switching on.

- **Overrun** Running time of the fans after switching off.
- Overrun IOBoard
  Time after which the power supply to some components is switched off.
- CommandExtTimeComma Duration of switching via an external contact.
- Kick time Time of the temperature check during night ventilation.
- Kick pause

Duration until the test is repeated during night ventilation.

#### 4.5.6 Filter monitoring

Monitoring the filter and setting the filter parameters.



- FilterOASave.Pls and FilterExhSave.Pls Setting the speed during initial commissioning.
- DrehzSave
  - Display of the saved speed.
- DrehzAve Displays the current speed.
  - DtaFilAlm
- DtaFilAlm
  Difference at which a filter change alarm is displayed.
- Outdoor Air Filter and Exhaust Air Filter Displays the status of the filter.



#### 4.6 Bus fans and bus fan outputs

Displays the status of the fans:



#### 4.7 System objects



#### 4.7.1 Setting the date and time

Turn to select the date and press to activate. The date can now be set by turning the selection switch to set the date. Confirm by pressing the button.

Turn to select the time and press to activate. The time can now be set by turning the selection switch. Confirm by pressing the button.



#### 4.7.2 Communication

Overview of the attached communication modules:



#### **BACnet**





The settings of the BACnet module can be checked and changed under **BACnet IP mod.1**.



Info	4	BACnet	IP modul	e			
		Given	IP addres	s			•
		>		192.168.10.1	.28	Þ	
		Given	subnet ma	sk			
		>		255.255.255.	0	Þ	
		Given	default g	ateway			
		>		192.168.10.2	54	Þ	
		Write	settings	Pas	ssive	Þ	
		+Gener	ral:				Ŧ
							OK
Ģ				ESC 🌑			

Attention: BACnet communication is only possible if the FVS unit has been put into operation by LTG Aktiengesellschaft.



#### HMI4WEB



The IP address of the Climatix controller can be found in the overview. The IP address can be changed.

#### Default setting:

DHCP	passive
IP	192.168.1.42
Subnet	255.255.255.0
Gateway	192.168.1.1

The HMI function can be displayed on the laptop/PC using an internet browser.

To do this, connect the controller to a computer using a network cable. (Network symbol; left RJ45 connection on the POL638 controller and right RJ45 connection on the POL648).

#### MODBUS





Values can be checked and changed here during MOD-BUS communication.



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#### **KNX process bus**

The settings for KNX communication can be checked and changed under **Process bus**.







Attention: KNX communication is only possible if the FVS unit has been put into operation by LTG Aktiengesellschaft.

OK



#### 4.8 Versions

Q



ESC

Information about software and BSP version.

#### 4.9 Saving / loading



There is an SD card slot in the upper section of the controller. If an SD card is inserted, set parameters can be saved there and transferred to another unit.

Info	4	Save / load		•
		+External memory	None	<u> </u>
		Formatting		•
		>	None	
		Free memory [MB]	0	
		Sett.save ->Ext.m.		•
		>		
		Sett.load<- Ext.m.		Þ
		>		<b>•</b>
<u></u>			ESC	ок
( -				
Info	4	Save / load		
Info	4	Save / load Filtercontrol	0x0000	<b>)</b>
Info	4	Save / load Filtercontrol Restart required !	0×0000	<b>)</b>
Info	4	Save / load Filtercontrol Restart required ! Alarml.save->Ext.m	0x0000	<b>)</b>
Info	4	Save / load Filtercontrol Restart required ! Alarml.save->Ext.m BSP load	0x0000	<b>)</b> <b>)</b> <b>)</b>
Info	4	Save / load Filtercontrol Restart required ! Alarml.save->Ext.m BSP load Sett.service load	0×0000	<b>)</b> <b>)</b> <b>)</b> <b>)</b>
Info	4	Save / load Filtercontrol Restart required ! Alarml.save->Ext.m BSP load Sett.service load Sett.factory load	0×0000	<b>b</b> <b>b</b> <b>b</b> <b>b</b> <b>b</b>
Info	4	Save / load Filtercontrol Restart required ! Alarml.save->Ext.m BSP load Sett.service load Sett.factory load Sett.service save	0×0000	
Info	4	Save / load Filtercontrol Restart required ! Alarml.save->Ext.m BSP load Sett.service load Sett.factory load Sett.service save Save application	0×0000	
	4	Save / load Filtercontrol Restart required ! Alarml.save->Ext.m BSP load Sett.service load Sett.factory load Sett.factory load Sett.service save Save application	0x0000	р р р р р

To do this, click on Sett.save.->Ext.m and select Execute. The parameters can be loaded from the SD card by clicking on Sett.load.<-Ext.m.

After loading, a restart must be executed.

If all parameters have been changed, they can be reset to the factory settings. To do this, go to **Sett. factory load** and select **Execute**.



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