บริษัท เอดีดี เฟอร์เนส จำกัด
ADD FURNACE CO.,LTD.
44 ซอยบรมราชชนนี 70 ถนนบรมราชชนนี แขวงศาลาธรรมสพน์ เขตทวีวัฒนา กรุงเทพฯ 10170
โทร: 02-888-3472 โทร: ออกแบบ:08-08-170-170 แฟกซ์: 02-888-3258
https://www.add-furnace.com E-mail: sales@add-furnace.com

GB

DUNGS®
Combustion Controls

Description
DUNGS VisionBox

Application

The VisionBox allours the setting of the parameter values of DUNGS control devices via PC, Laptop or Tablet PC (from WIN 10, with USB connection).

Suitable for:
MPA 4xxx
MPA 51xx
VPM
W-FM25

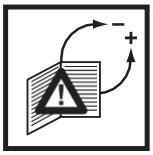
Suitable operating systems:
WIN XP, 7, 8, 8.1, 10

Note: Passwords are required to install the software and for parameterization of the systems.
Please contact your DUNGS sales representative for the passwords your require.

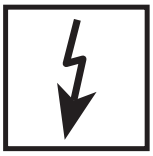
2. Warnings

2.1 General warnings

The recognised occupational safety rules and accident prevention regulations **must be observed and, if necessary, personal protective measures must be taken.**



All adjustments and settings should **only be performed in accordance with the instruction manuals of the connected machines.**

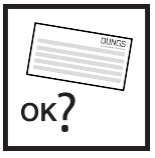


Never carry out work as long as gas pressure or voltage is applied. Avoid **open fire. Please observe public regulations.**

Prior to assembly, the device must be inspected for transport damage.

The device must not be exposed to open fire. Protection against lightning strikes must be guaranteed.

Protection from environmental impacts and weather conditions (**corrosion, rain, snow, icing,** humidity (e.g. **by condensation), mould, UV radiation, harmful insects, poisonous, corrosive** solutions/liquids (e.g. cutting and **cooling fluids**), **must be guaranteed. Depending on the installation site, it may be necessary to take protective** measures.



The device may only be operated in compliance with the operating conditions stated on the type plate.

The device must be protected from vibrations and mechanical impacts.

The device must not be used in areas with increased seismic risk

Explanation of the symbols		
1, 2, 3,...	=	Order of action
•	=	Instruction

2.2 Designated use

The device is used in accordance with its designated use if the following instructions are observed:

- Applicable only with suitable DUNGS systems and software
- Use only in compliance with the operating conditions stated on the type plate.
- Use in perfect condition only.
- Malfunctions and faults must be eliminated immediately.
- Use only in observance of the instructions given in this instruction manual and of national regulations.

2.3 Risks in case of misuse

- If used in accordance with their designated use, the devices are safe to operate.
- Non-observance of the regulations may result in personal injury or material damage, financial damage or environmental damage.
- Operator errors or misuse present risks to life and limb of the operators and also to the device and other material property.

Approval / declaration of conformity

บริษัท เอดีดี เฟอร์เนส จำกัด
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DUNGS®
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4. Table of contents

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DUNGS®
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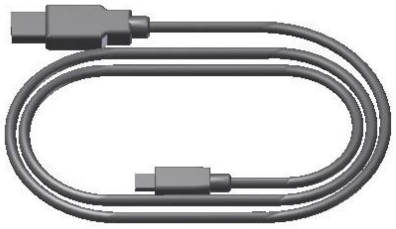
5. Content VisionBox mini

The VisionBox mini includes the adapter to connect a PC/Laptop to MPA and VPM systems.

The required software is not included. It is available from the download ares in the DUNGS homepage
www.dungs.com/softwaretools



Connecting cable PC/VisionBox

VisionBox

Connecting cable VisionBox/TWI connection
MPA, VP

6. Software Download and Installation

www.dungs.com/softwaretools

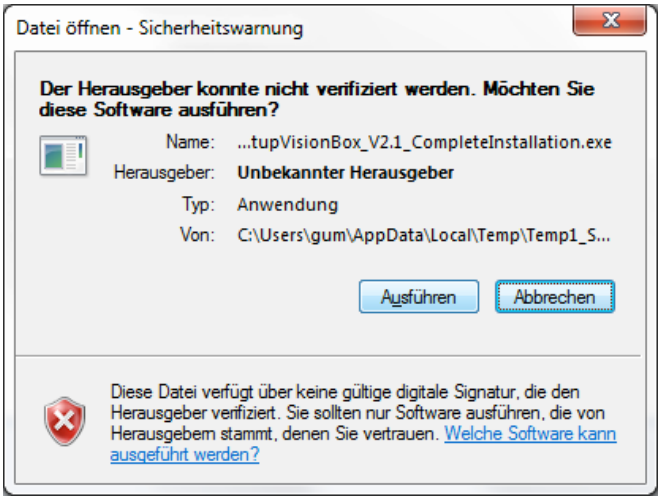
> VisionBox

Installation:

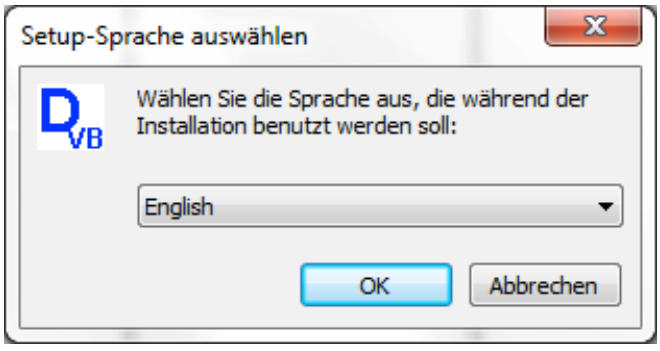
Select a file and select „Open“

Download the file

Run the .exe file



Press „Ausführen“

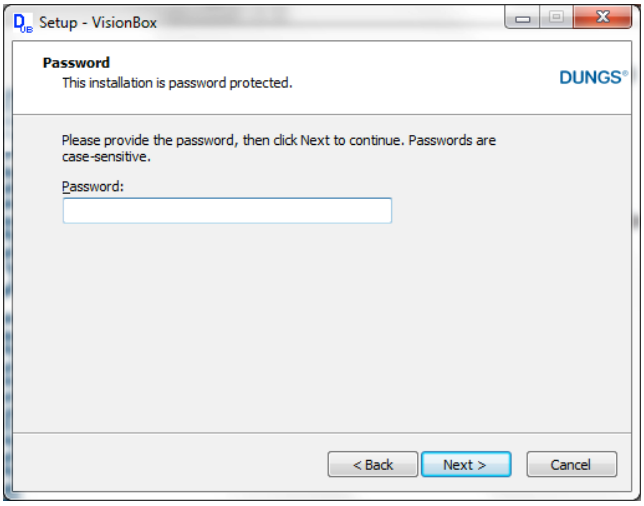


Choose language during installation

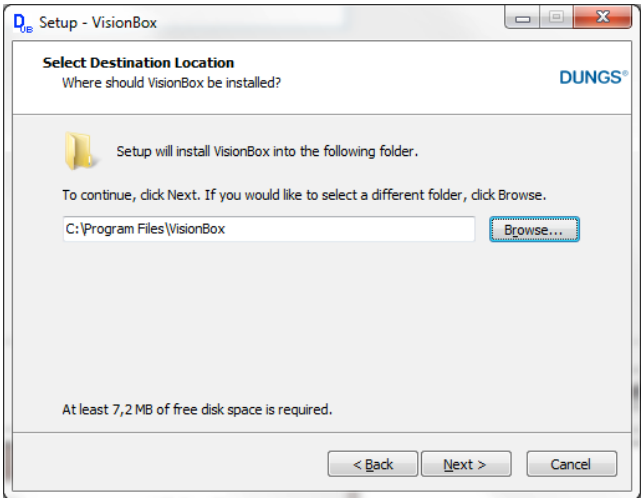
Confirm „Next“

M • Edition 07.20 • Nr. 270173

6. Software Download and Installation

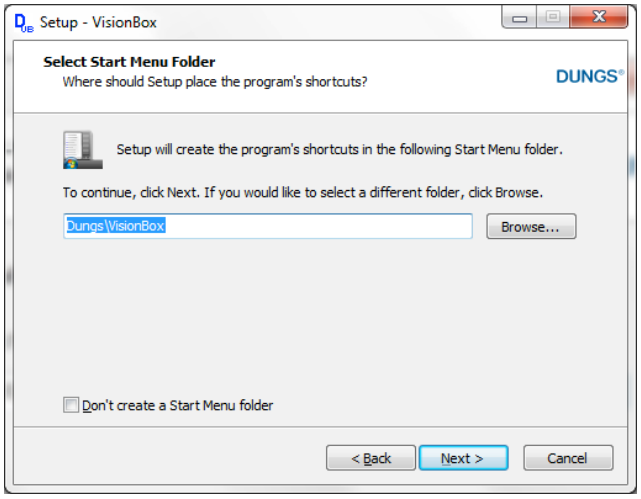


Enter Password



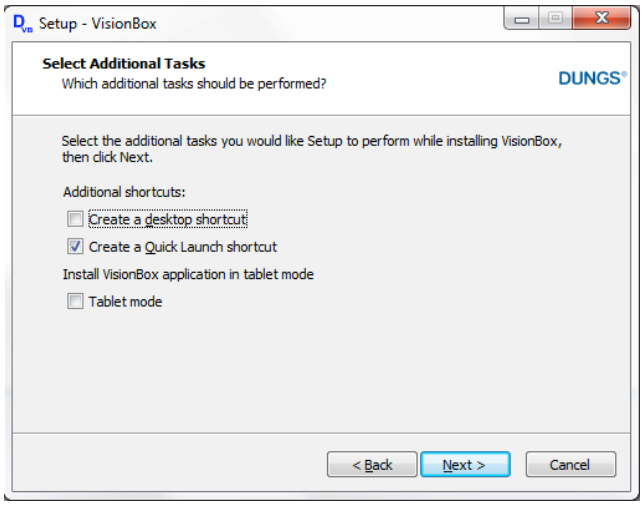
Select target folder
Confirm with „Next“

Confirm target folder „Yes“

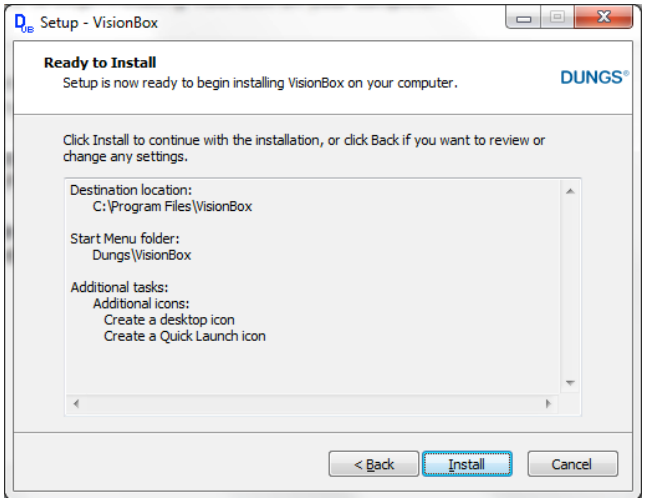


Select Start Menu Folder
Confirm with „Next“

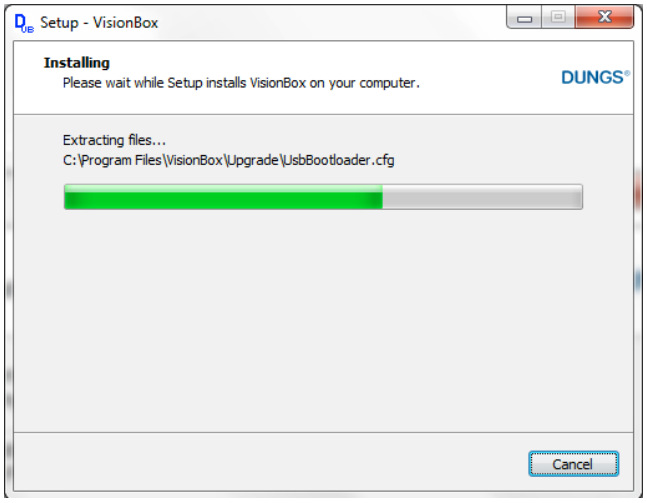
6. Software Download and Installation



Select icon on desktop and / or in quick start bar
To install the program on a Tablet PC choose „Tablet mode“
Confirm with “next”

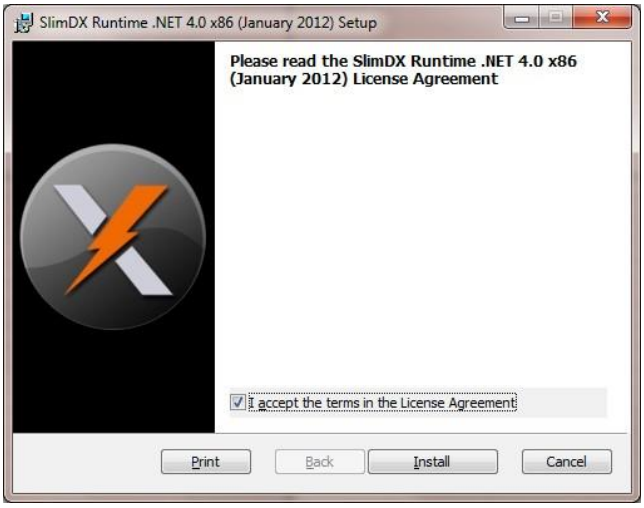


Start installation: „Install“

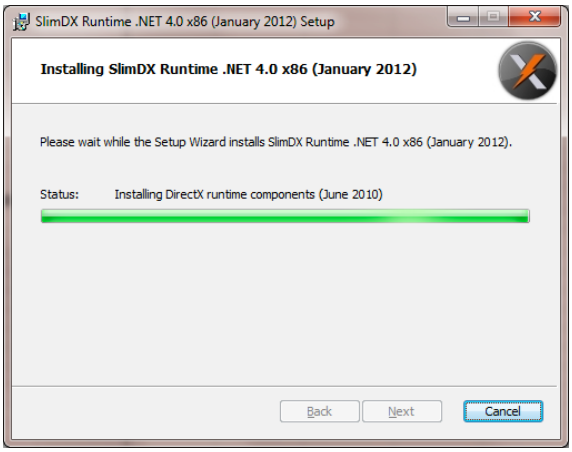


Please wait, installation continues

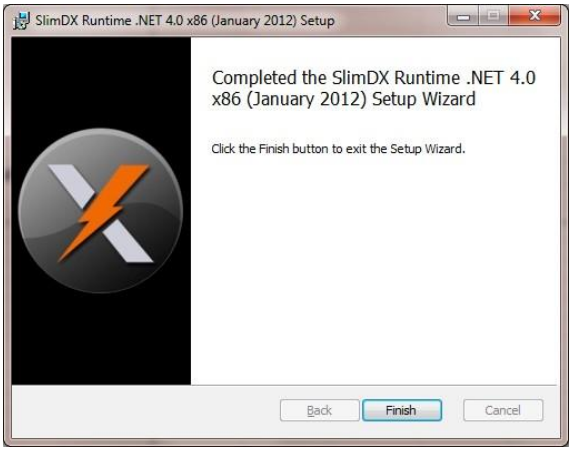
6. Software Download and Installation



Please confirm „I accept…“, continue installation “Install”



Please wait, installation continues



Complete Installation „Finish“

6. Software Download and Installation

Complete installation of the VisionBox program „Finish“
Restart the computer to enable the changes

7. Connection VisionBox

De-energize MPA / VPM.
Connect the 4-pin connector of the VisionBox to the ter-
minal „TWI“ - note encoding.
Connect the VisionBox to the computer / laptop and start the PC / Laptop.

LED Power – on

Energize MPA / VPM.

LED MPA – on

LED PC – flashing

ATTENTION: Line voltage, don´t touch any live parts. Mind the safety rules when working with energized electrical components.

LED Power – on
LED MPA – on
LED PC – flashing

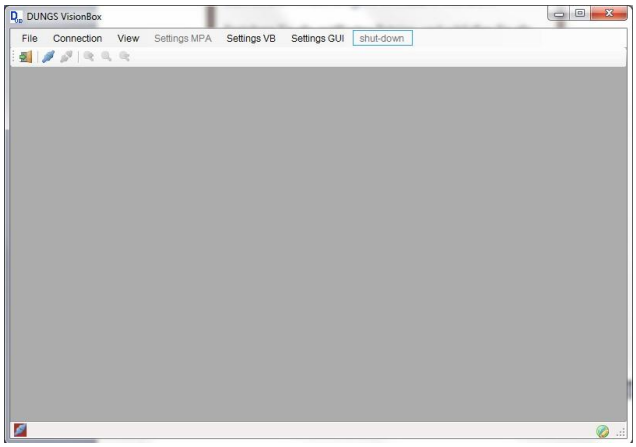
Start program VisionBox.

Connect MPA/VPM to VisionBox Software

All LED are permanent on

8. Operation VisionBox Software

Initial screen VisionBox

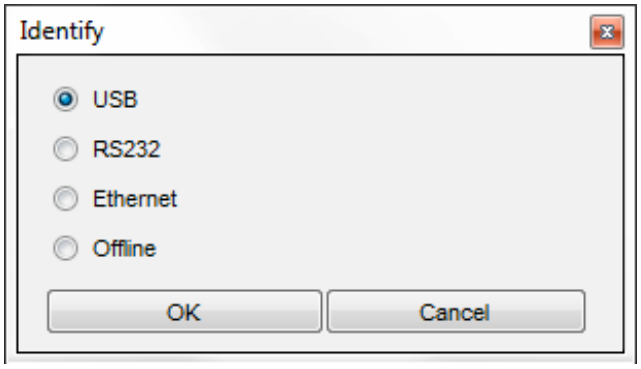


Start-up image VisionBox.

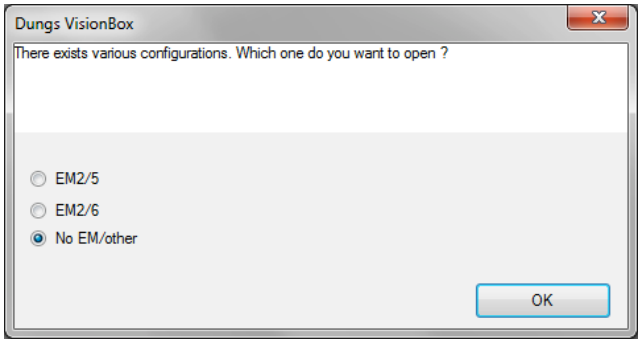
Change language via „Settings GUI“

Link to MPA / VPM via „Connection“ or symbol „Connector“

ATTENTION: In case of a required software update for the VisionBox see chapter 10



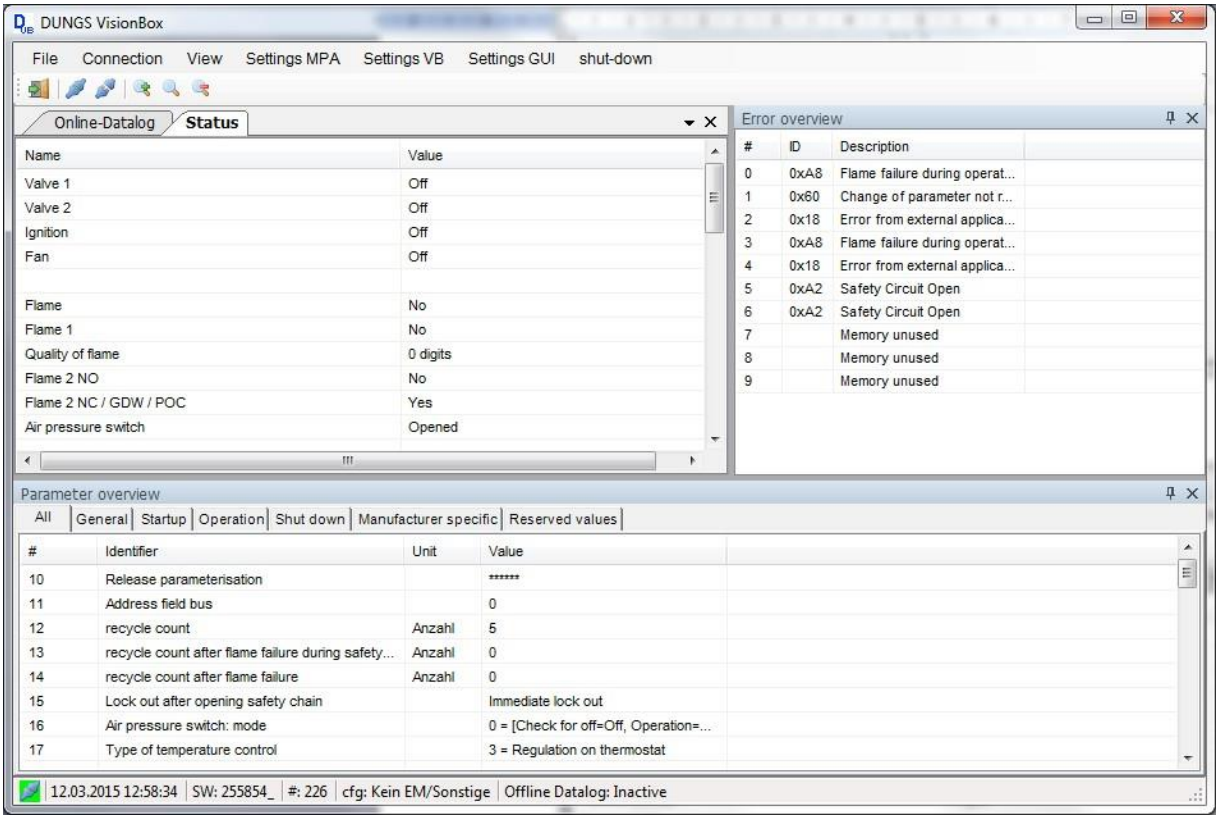
Choose link to PC / Laptop and confirm „OK“
With the VisionBox Mini only USB and Offline mode possible.



MPA can be equipped with extension modules.
Please choose the built in module and confirm with OK.

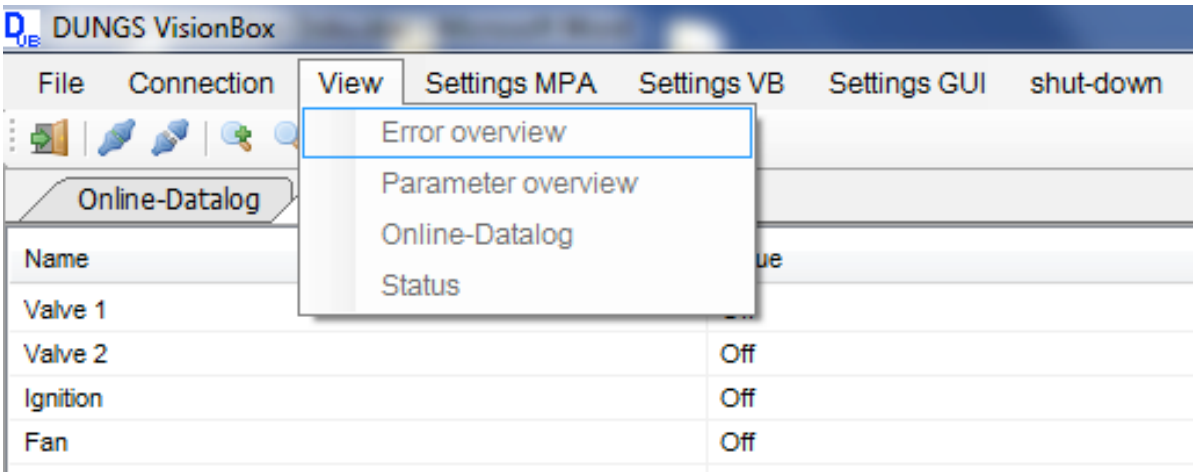
8. Operation VisionBox Software

Standard View



The standard view shows:

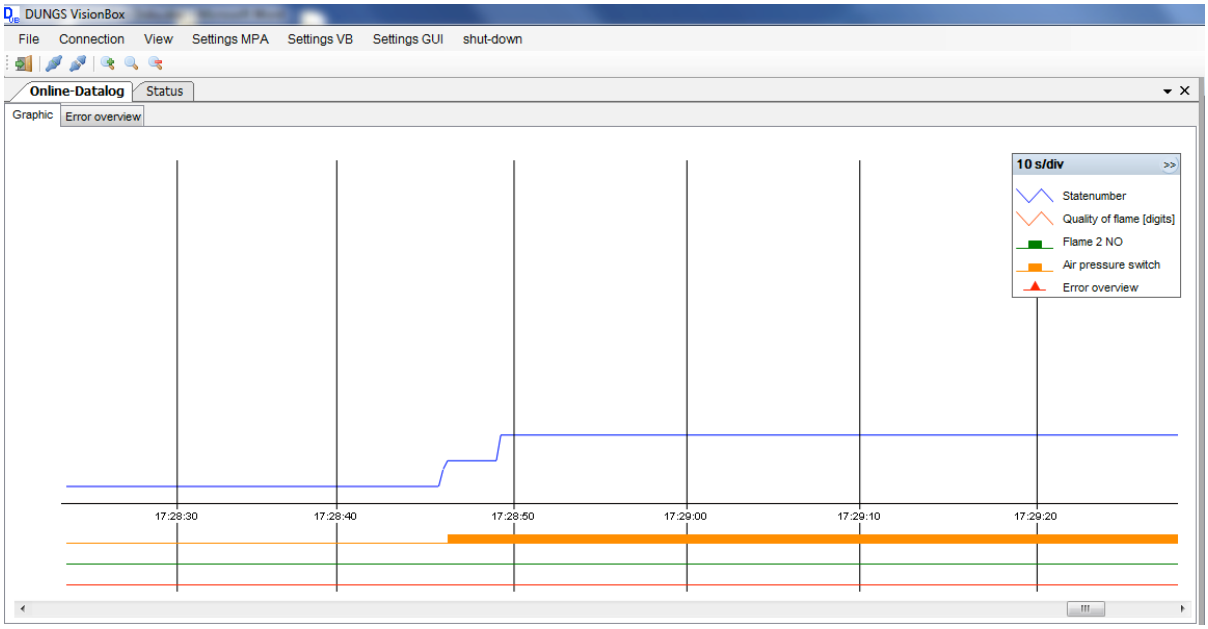
Status:	Operating condition of the connected controlbox
Error overview:	Contend of the error memory of the connected controlbox
Parameter overview:	Current parameter setting of the connected controlbox



The windows shown can be displayed or removed via „View“

8. Operation VisionBox Software

View: Online-Datenlog



The view „Online-Datalog“ provides a graphical overview of the burner functions.

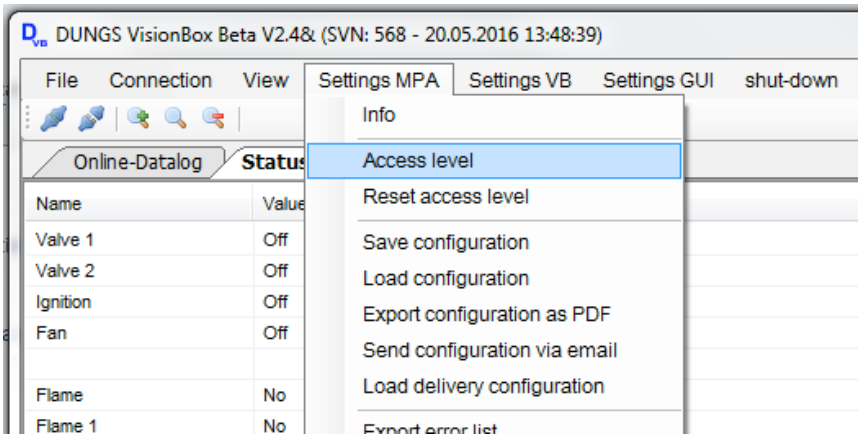
8.1 Change of access level

Adjusting the parameter setting

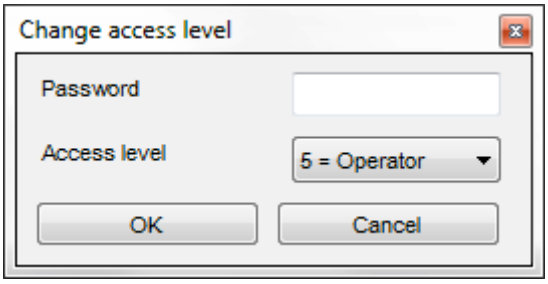
To adapt or change parameters is done for all DUNGS devices according to the same procedure.
However, the devices differ in the activation of new values.
Please refer to the corresponding operating and installation instructions.

The ability to change parameters is restricted by a password hierarchy:

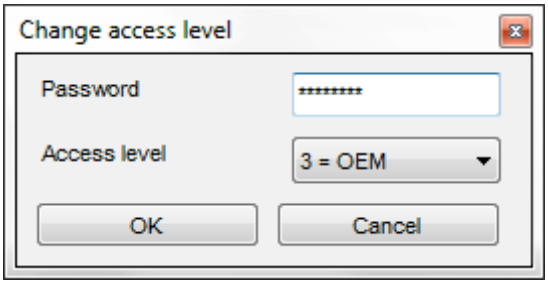
Password levels
Level 5: Operator / no password / no change authorization
Level 4: Service / password / limited change authorization
Level 3: OEM / Password / full editing rights
Level 2: OEM expert / password / full editing rights incl. expansion variable upper and lower limits
Level 1: DUNGS / password / developer level



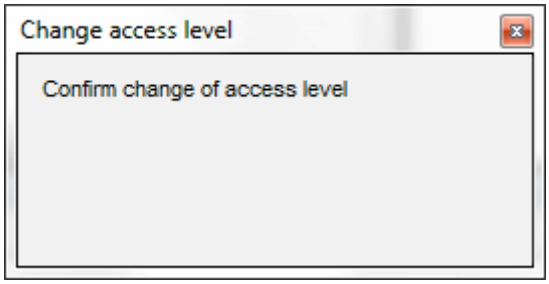
Open „Settings MPA“ (also for VPM)
Select „Access Level“



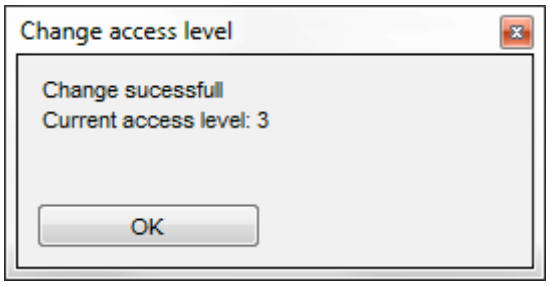
Enter password
Select Access Level



Confirm with OK

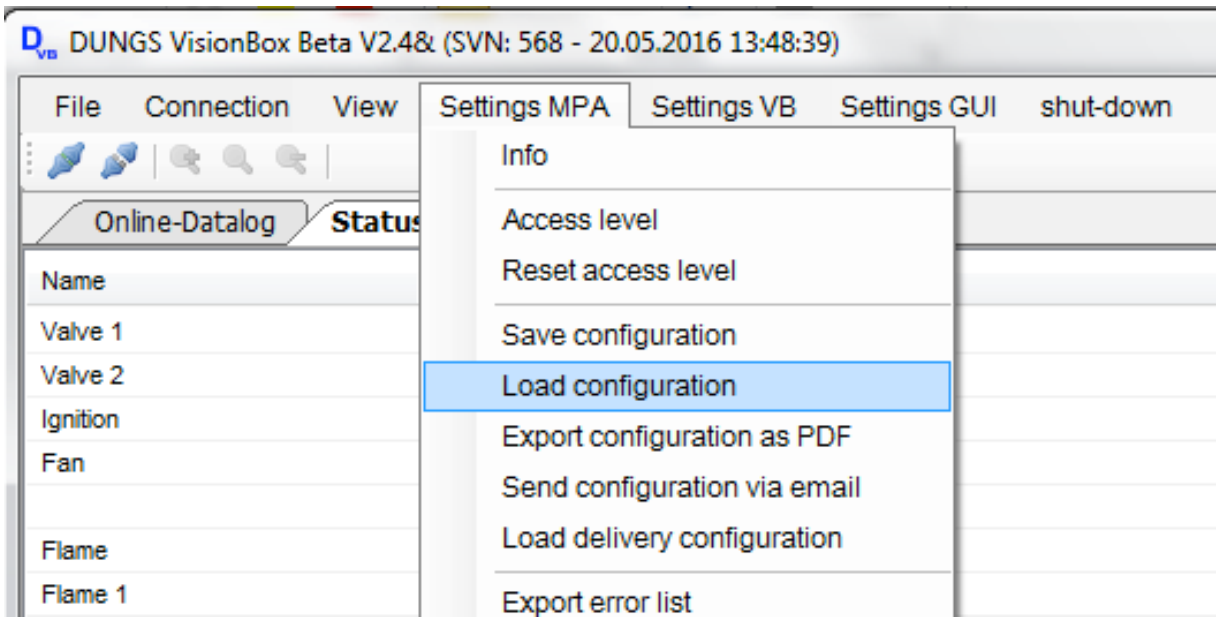


Confirm change of the access level by pressing the RESET button on the MPA / VPM



Change of the access level successful, complete with „OK“

8.2 Copy of a existing parameter set



Open „Settings MPA“ (also for VPM)
Select „Load configuration“

If the VisionBox program is connected to a MPA/VPM the differences between the actual parameter setting of the MPA/VPM and the loaded configuration will be shown with yellow marked cells.

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8.3 Change of parameter

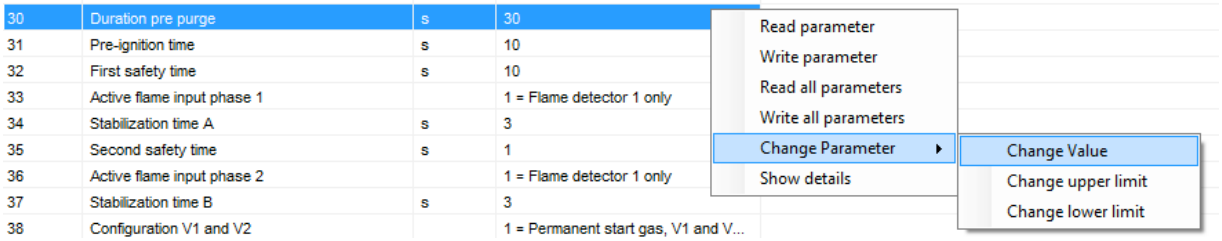
Window „Parameter overview“

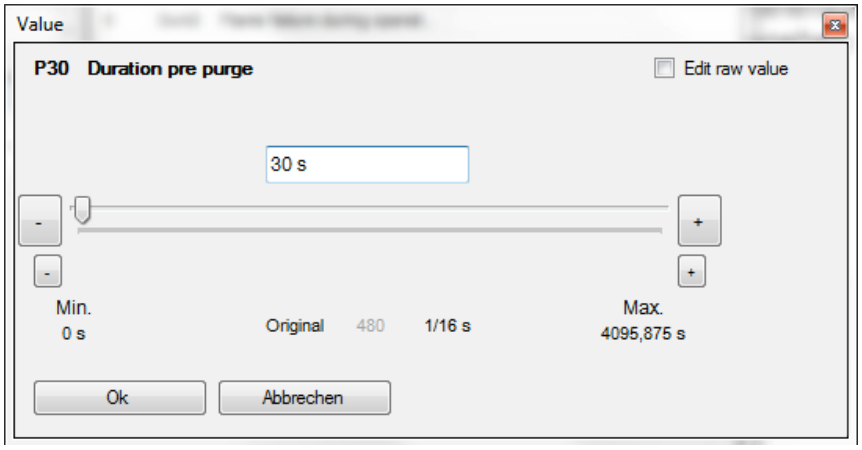
Parameter overview

All | General | Startup | Operation | Shut down | Manufacturer specific | Reserved values

#	Identifier	Unit	Value
10	Release parameterisation		******
11	Address field bus		0
12	recycle count	Anzahl	5
13	recycle count after flame failure during safety...	Anzahl	0
14	recycle count after flame failure	Anzahl	0
15	Lock out after opening safety chain		Immediate lock out
16	Air pressure switch: mode		0 = [Check for off=Off, Operation=...
17	Type of temperature control		3 = Regulation on thermostat
18	Configuration FLW2_NC, GDW or POC		1 = Flame input (NO)
19	Configuration output operation		3 = Flame on
20	Duration safety chain open	s	60
21	Shutter test		0 = [Shutter test flame detector 1=...
22	FM mode active		Inactive
30	Duration pre purge	s	30
31	Pre-ignition time	s	10
32	First safety time	s	10
33	Active flame input phase 1		1 = Flame detector 1 only
34	Stabilization time A	s	3
35	Second safety time	s	1
36	Active flame input phase 2		1 = Flame detector 1 only

Example Change prepurge time





The value (time in seconds) for the pre-purge time may be entered direct in the value window, by using the +/- buttons or by moving the value pointer.

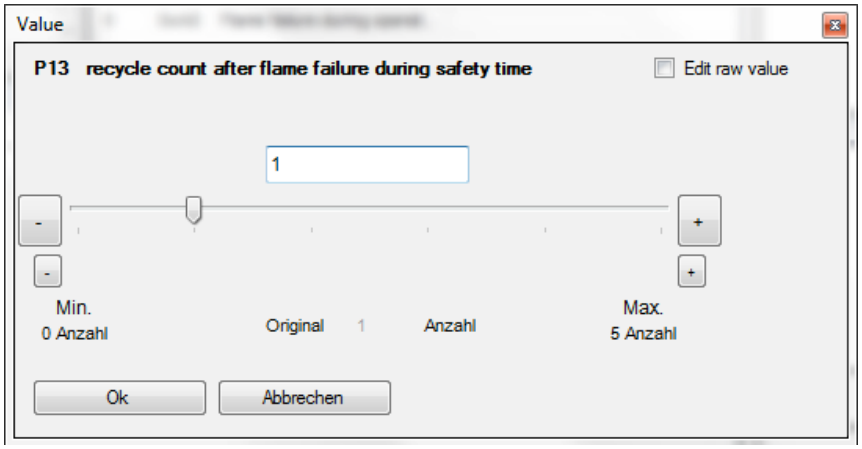
Confirm value with „OK“

The new value is transferred to the device

Example Changing number of restart attempts

Select parameter and activate the parameter by double-click in the value field.

Alternatively, via a selection menu (click right mouse button) the parameters are enabled for change.



The value (number of allowed restart attempts) may be entered direct in the value window, by using the +/- buttons or by moving the value pointer.

Confirm value with „OK“

The new value is transferred to the device.

The values are saved immediately after the confirmation in the control, to enable the parameter change refer to the relevant operating and installation instructions.

9. Error overview

The error overview shows the last ten in the control stored errors.
The error ID refers to the error description in the corresponding operating and installation instructions.

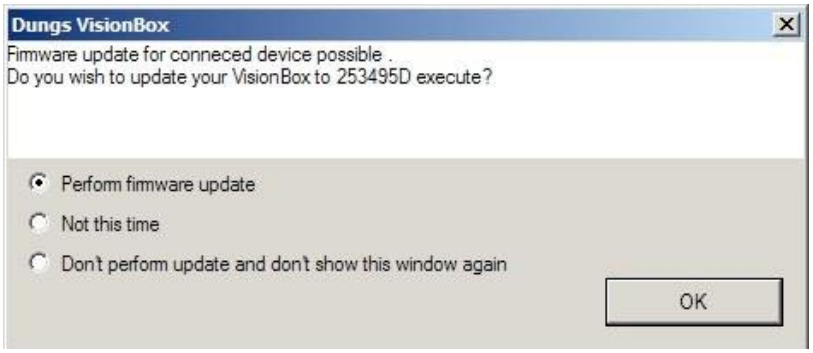
Error overview

#	Performance	ID	Description	Procedure	Anti cycle counter	State	Timestamp	Additional information
0	lock out (0x23)	0xA2	Safety Circuit Open	0x0004	5	8 = Pre-purge	07:55:30	0x60 0x00 0x00 0x7C 0x12 0x40 0x23 0x8F 0x00 0x17
1			Memory unused					
2			Memory unused					
3			Memory unused					
4			Memory unused					
5			Memory unused					
6			Memory unused					
7			Memory unused					
8			Memory unused					
9			Memory unused					

10. VisionBox Update Software

If the VisionBox is connected to the PC / laptop via USB and the software is started, the program automatically performs a check of the software status of the VisionBox.

If a later version of the firmware available a update window automatically opens.



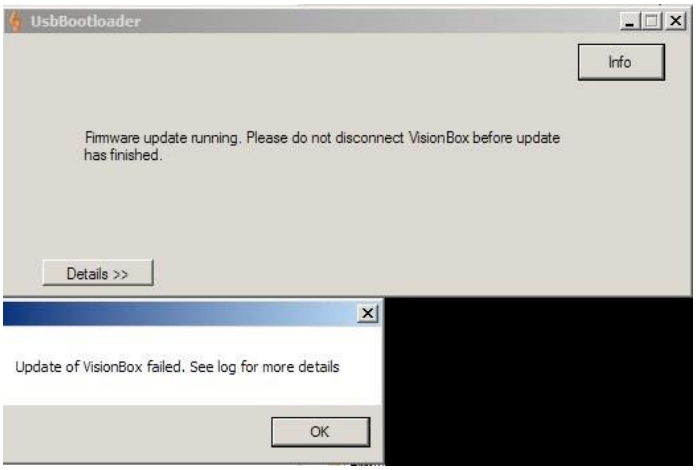
Select „firmware update“ with „OK“

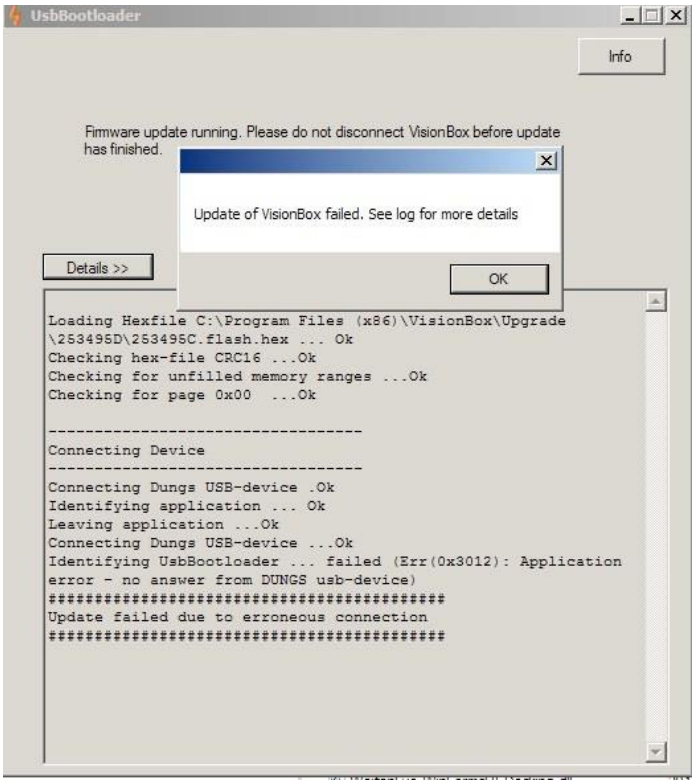
VisionBox Update, error messages

Early versions of the VisionBox can not be updated.
The following error message is displayed.
Update VisionBox only possible by DUNGS.

11. VisionBox update, error messages

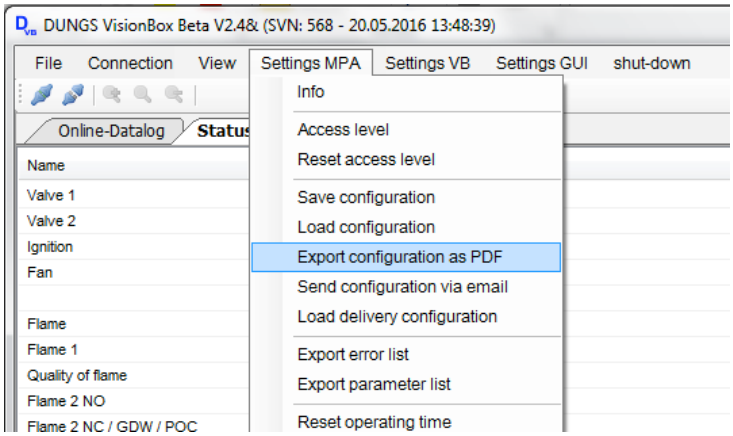
Other errors such as missing link shows a log of the error.



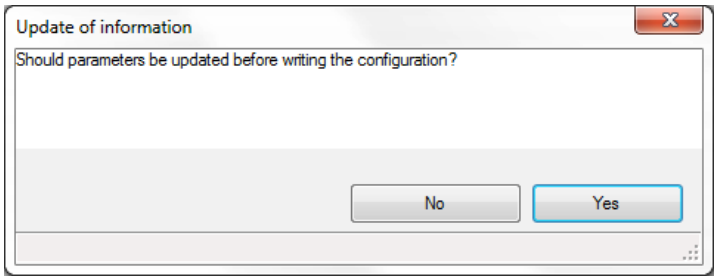


12 Documentation device configuration

Create PDF document of device configuration



Open “Settings “MPA”
Select “Export configuration as PDF”



Before the PDF document is generated the parameter values can be updated

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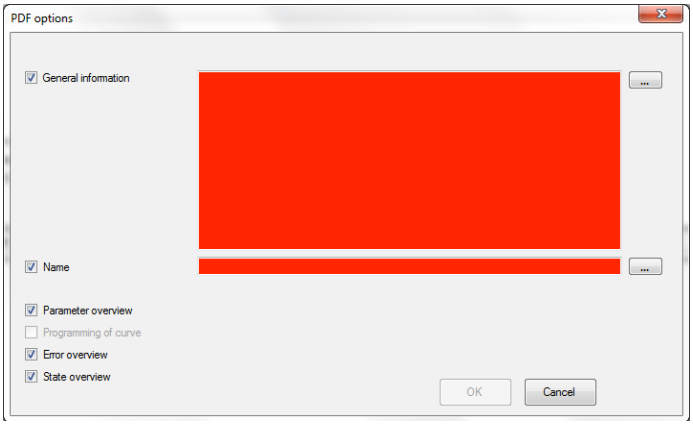
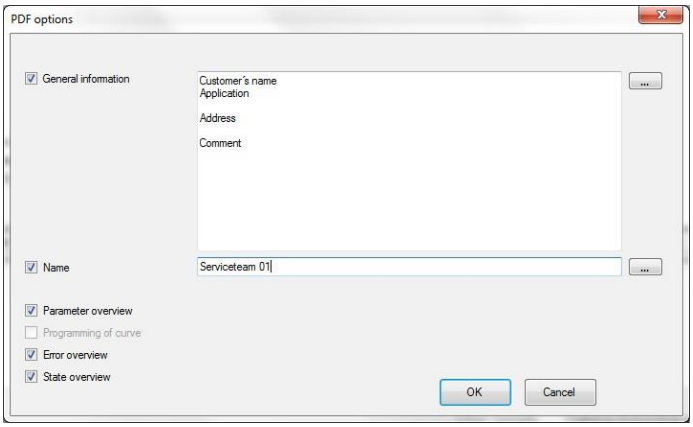


The information which will shown in the file can be selected by putting a check-mark into the selection fields
Light grey fields cannot be shown.

The red coloured areas “General information” and “Name” can be filled in by the applicant. These information will be shown in the front page of the documentation.



The VisionBox saves the information, they can be shown again by pressing the “…” button.
After the input is confirmed by pressing the “OK” button the PDF document will be generated.

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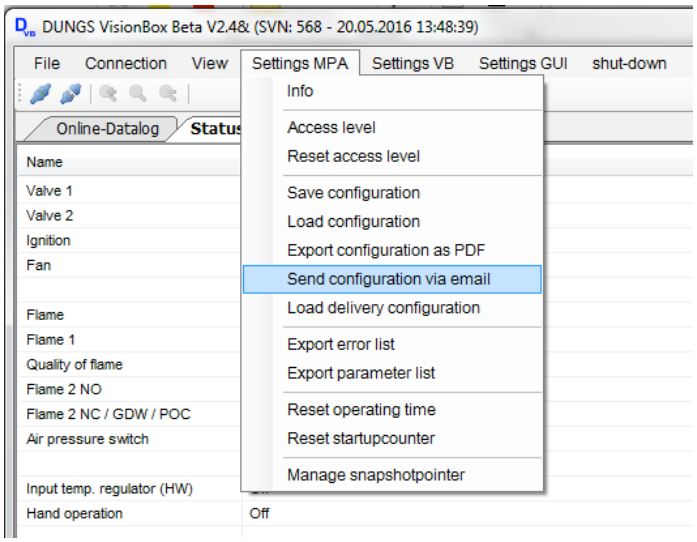
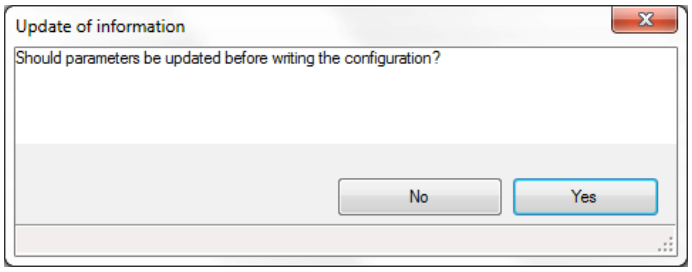
13. Send configuration via email



Open “Settings “MPA”
Select “Send configuration via email”

A XML file of the configuration as well as a PDF document with the content of the XML file will be generated.



Before the PDF document is generated the parameter values can be updated

After the selection a email will be generated automatically.

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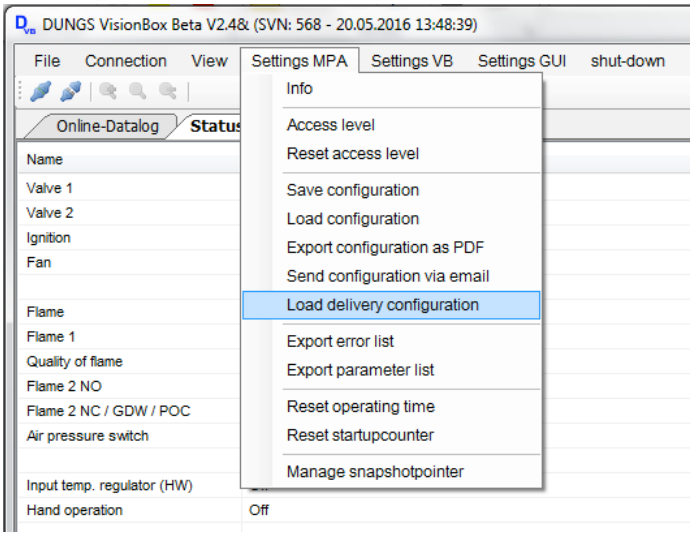
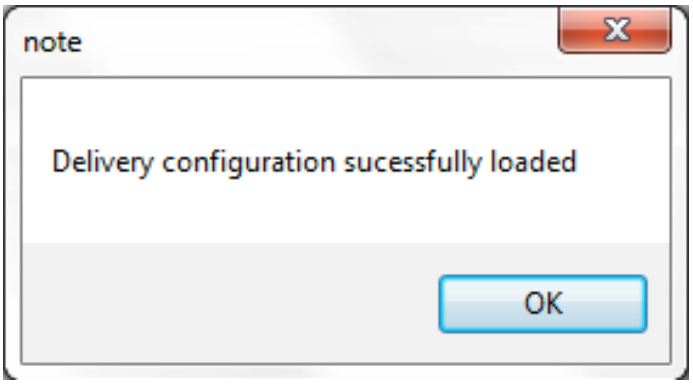
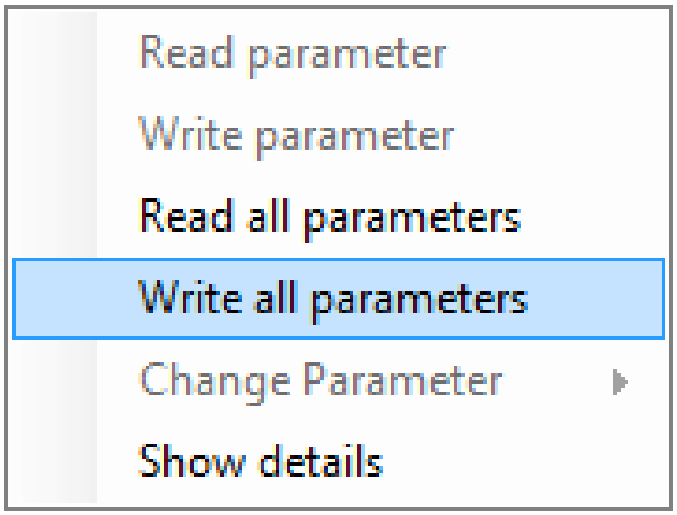
14. Reset to factory setting



Open “Settings “MPA” (also for VPM).
Select “Load delivery configuration”
The VisionBox select´s automatically the belonging configuration.
Different values towards the settings in the MPA / VPM will be highlighted yellow.





To write the factory setting to the device, choose “Write all parameters” by pressing the right mouse button.

To write the parameter values access level „OEM“ is required.

For a new configuration see chapter 8 ff.

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The Pressure Equipment Directive (PED) and the Energy Performance of Buildings Directive (EPBD) require a periodic inspection of **heating appliances** in order to ensure a high degree of efficiency over a long term and, consequently, the least environmental pollution.

It is necessary to replace safety-relevant components after they have reached the end of their useful life. This recommendation applies only to heating appliances and not to industrial heating processes. DUNGS recommends replacing such components according to the following table:

Safety relevant component	**USEFUL LIFE** **DUNGS recommends replacement after:**	**Operating**	**EN Standard**
Valve proving systems	**10 years**	250.000	EN 1643
Pressure switch	**10 years**	N/A	EN 1854
Automatic burner control with flame safeguard	**10 years**	250.000	EN 298
Flame detector (UV probes)	**10.000 h operating hours**		
Gas pressure regulators	**15 years**	N/A	EN 88 EN 12078
Gas valve without valve testing system*	**10 years**	50.000-500.000 depends on diameter	EN 126 EN 161
Low gas pressure switch	**10 years**	N/A	IEN 1643
Pressure relief valve	**10 years**	N/A	EN 88 EN 14382
Gas-air ratio control system	**10 years**	N/A	EN 12067

We reserve the right to make modifications in the course of technical development.

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