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Software description:

ELBP110 for PLEX-COM1 - version 4.0


Configuration software for PLEX_COM1 Communication converter

Rev.	Description	Prepared	Checked	Approved	Date
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1. Introduction

This documentation for explaining as to use the ELBP 110 software for configuring the Plex-com1 card parameters.

The configuration define the Plex-com1 functions, to have a best performance application.

The interface between PC to Plex-com1 is possible with a serial connection EIA RS 232.

To enable the configuration modality, is necessary put in ON position the DIP 1 of Dip-switch bank mounted on Plex-com1 board, and the feedback indication is intermittent commutation of relay OUT8.

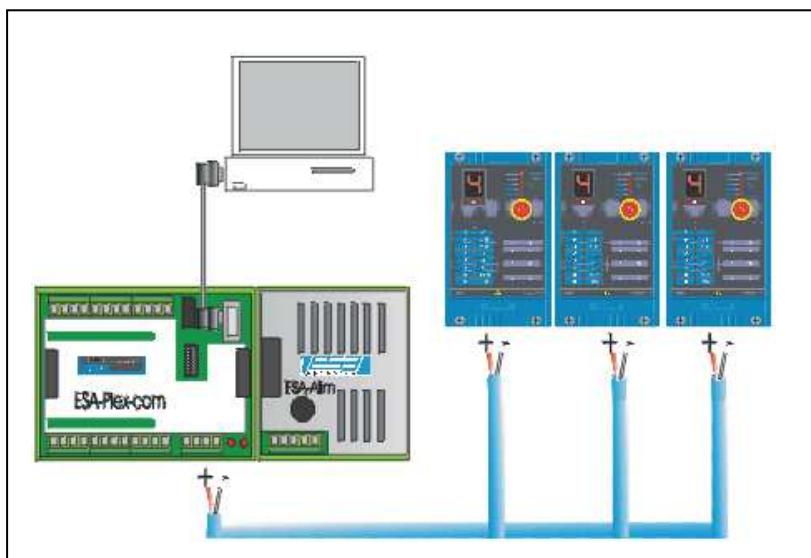
Attention: The device don't management any communication with the ECS bus, when it's on configuration modality, is absolute necessary that the system is in stop.

1.1 System and connection

The ELBP110 software require a Windows operating system and it is furnished in ".zip" format.


To install the software unzip the file in a folder and then run the set-up.

In order to communicate with the ESA PLEX-COM1 device and allow the configuration, the RS232 serial communication input must be used.



The PLEX_COM1 device have the RS232 port that must be connect to the RS232 port of the PC by a pin to pin cable.

RS232 PC port	Description	ECS Driver connector
Pin 2	RxD	Pin 2
Pin 3	TxD	Pin 3
Pin 5	Ground (shield)	Pin 5

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In case an RS232 port are not available on the PC but just USB port are available, standard USB-232 converters can be used (ie model Delock 61364).


Using USB converter, after driver installation and device connection to PC, it is necessary know the number of the serial port assigned by the PC to the USB-RS232 converter. The ELBP110 program accept up to serial port number 5.

2. Start program page

Following the start of the program by the specific icons, the start page will be shown. In this page the software version is displayed.



To proceed with the device configuration select “Start” button.

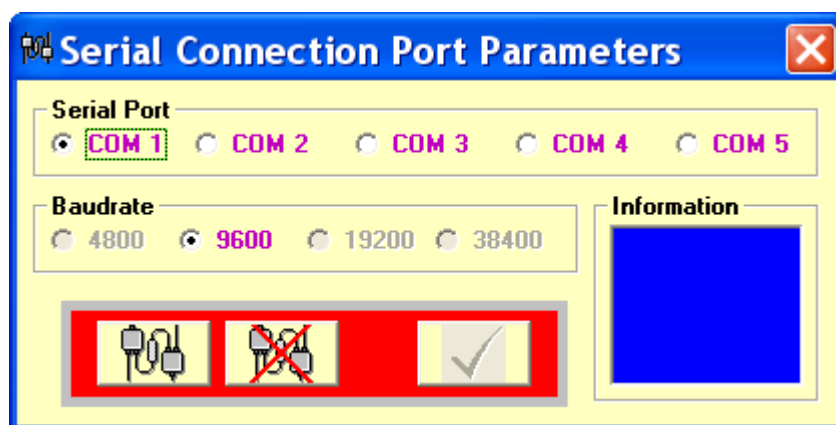
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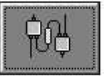

3. Program Setting

The “Program setting” allow the setting that are necessary to configure the device.

3.1 Serial communication

Setting of the communication port used to communicate with the burner control device. This page is opened at the starting of the program or can be selected by the upper bar selecting the “Interface “ button.




AVAILABLE SETTINGS/ BUTTONS / INDICATIONS	DESCRIPTION
Serial Port	Setting of the PC serial communication port used.
Baudrate	Setting the communication Baud-rate that is fixed at 9600 baud.
Connection button    	Open the selected communication serial port. This must be pressed after selected correctly the previous selection. The images changes indicating if the port is correctly set or not. In case of any changes, as the baudrate parameters, this button must be pushed again to accept the new settings.

Operation:

- 1) Select the used serial port;
- 2) press the “Connection button” to enable the communication port and assuring that is OK;

Pass to “Password” selection page.

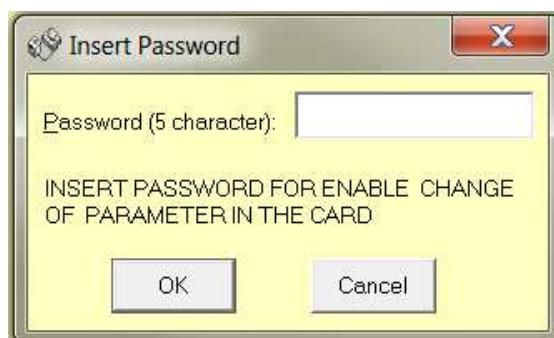
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3.2 Password page

The configuration is protected by a password, that is memorized in Plex-com1, to protect the data from not authorized operator.

The password is composed by 5 characters, before saved.

This page is opened at the starting of the program or can be selected by the upper bar selecting the "File→ Insert password" button.



AVAILABLE SETTINGS/ BUTTONS / INDICATIONS	DESCRIPTION
User Name	Pass-code writing area. Selecting this area a keypad is opened by the software. Dial the correct user name code and confirm with the "enter" button.
Clear button "CANCEL"	Cancel the password selection code.
Confirm button "OK"	Checks the pass code and if it is OK, and allow the configuration. In case of wrong password before clear the old one and type the correct again.

Operation:


- 1) Select the User Name area;
- 2) Digit the correct pass code on the keypad, and confirm with Enter
- 3) Press the Confirm Button to checks the pass-code.

3.3 Save configuration page

The "Save configuration" page allow to save the actual PLEX-COM1 configuration into the PC directory, for further uses.

With this command, the File manager is open and it is possible select the destination of the configuration file. The configuration file will be saved with "*.esa" extension.

This page can be opened by the upper bar selecting the "File→ Save configuration file" button.

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3.4 Open configuration page

The “Open configuration” page allow recall a PLEX-COM1 configuration from the PC directory, to be used for a spare part configuration.

With this command, the File manager is open and it is possible select the folder where the configuration file is memorized. The configuration is saved with “*.esa” extension.

Opening PLEX-COM1 configuration file, the program compile the parameters setting in the other program pages.

This page can be opened by the upper bar selecting the “File→ Open configuration file “ button.

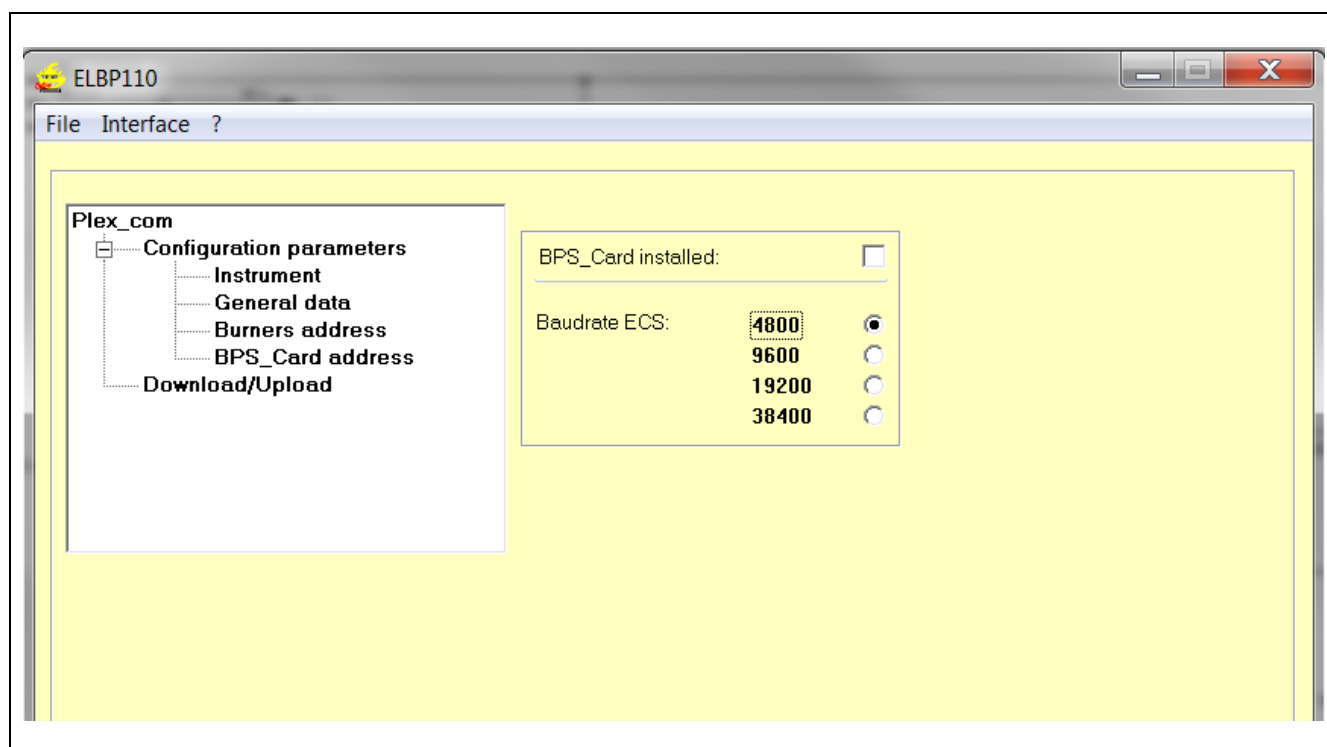
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4. Configuration parameters


The “Configuration parameters” pages allow to configure the device in base at the application.

4.1 Instrument page

The instrument page allow to select the features of the ESA burner control devices that must be controlled by PLEX-COM1.

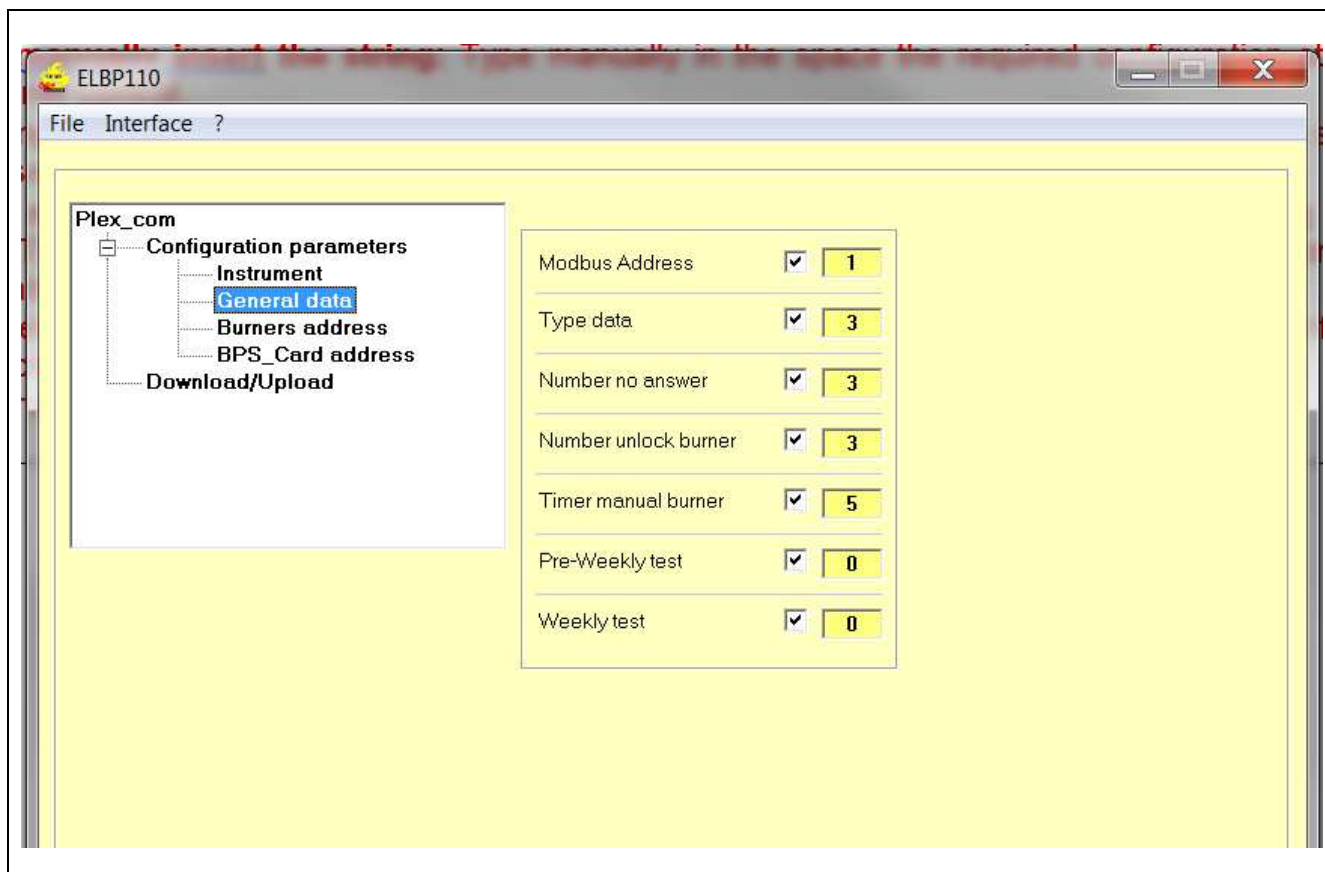


AVAILABLE SETTINGS/ BUTTONS / INDICATIONS	DESCRIPTION
BPS_Card installed	To be activate select when the Plex-com1 must manage also the BPS-Card installed into ESA ESTRO.
Baudrate ECS	Define the ECS output communication speed, that must be the same of the ESTRO /REFLAM setting.


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4.2 General data page

The general data page allow to select the function of the ESA PLEX-COM1 device. Please refer to ESA PLEX-COM1 data sheet for further information.



AVAILABLE SETTINGS/ BUTTONS / INDICATIONS	DESCRIPTION
Modbus address	Plex com1 ModBus-RTU address. Possible selection from 1 to 254.
Type data	Type format of exchanged data with supervisor.
Number no answer	Max no answer from burner control admitted (from 1 to 5)
Number unlock burner	Maximum automatically unlocks of burner (from 0 to 5). If the value is set to 0, the function is disable and is possible reset management by supervisor. Attention: This parameters must be in accordance with relative standard applicable
Timer manual burner	Maximum time of burner in manual mode. Overpassed this time, he PLEX-COM1 stop automatically the burner. The time can be chosen from 0 to 120 minutes. In case the value is 0, the burner control can stay in manual mode for an infinitive period.

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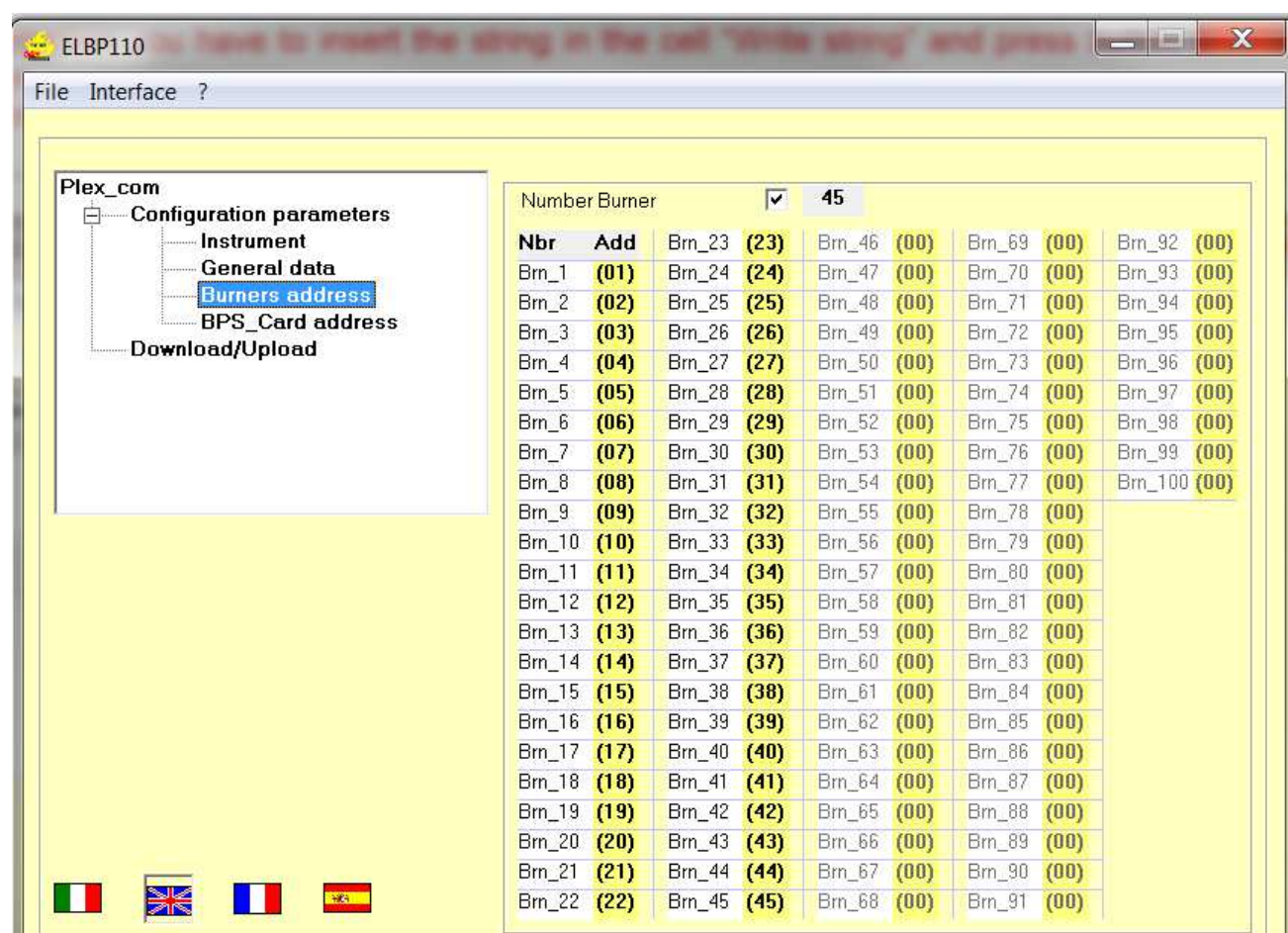
Pre-Weekly test	Selection in hours, from 0 (disable) to 168 (1 week).
Weekly test	Selection in hours, from 0 (disable) to 168 (1 week).

4.3 Burner address page

The burner address page allow to select the number of burner control devices to be controlled and their ECS address.

First select the number of burner and then for each burner set the same address that is configured in the ESA ESTRO or ESA REFLAM.

The address is composed by two characters, first for zone and second for node, the value characters admitted are from 0 to 9 and from A to Z for both characters.



ELBP110





File Interface ?

Plex_com


- Configuration parameters
 - Instrument
 - General data
 - Burners address**
 - BPS_Card address
- Download/Upload

Number Burner ☒ 45

Nbr	Add	Brn_23 (23)	Brn_46 (00)	Brn_69 (00)	Brn_92 (00)
Brn_1 (01)	Brn_24 (24)	Brn_47 (00)	Brn_70 (00)	Brn_93 (00)	
Brn_2 (02)	Brn_25 (25)	Brn_48 (00)	Brn_71 (00)	Brn_94 (00)	
Brn_3 (03)	Brn_26 (26)	Brn_49 (00)	Brn_72 (00)	Brn_95 (00)	
Brn_4 (04)	Brn_27 (27)	Brn_50 (00)	Brn_73 (00)	Brn_96 (00)	
Brn_5 (05)	Brn_28 (28)	Brn_51 (00)	Brn_74 (00)	Brn_97 (00)	
Brn_6 (06)	Brn_29 (29)	Brn_52 (00)	Brn_75 (00)	Brn_98 (00)	
Brn_7 (07)	Brn_30 (30)	Brn_53 (00)	Brn_76 (00)	Brn_99 (00)	
Brn_8 (08)	Brn_31 (31)	Brn_54 (00)	Brn_77 (00)	Brn_100 (00)	
Brn_9 (09)	Brn_32 (32)	Brn_55 (00)	Brn_78 (00)		
Brn_10 (10)	Brn_33 (33)	Brn_56 (00)	Brn_79 (00)		
Brn_11 (11)	Brn_34 (34)	Brn_57 (00)	Brn_80 (00)		
Brn_12 (12)	Brn_35 (35)	Brn_58 (00)	Brn_81 (00)		
Brn_13 (13)	Brn_36 (36)	Brn_59 (00)	Brn_82 (00)		
Brn_14 (14)	Brn_37 (37)	Brn_60 (00)	Brn_83 (00)		
Brn_15 (15)	Brn_38 (38)	Brn_61 (00)	Brn_84 (00)		
Brn_16 (16)	Brn_39 (39)	Brn_62 (00)	Brn_85 (00)		
Brn_17 (17)	Brn_40 (40)	Brn_63 (00)	Brn_86 (00)		
Brn_18 (18)	Brn_41 (41)	Brn_64 (00)	Brn_87 (00)		
Brn_19 (19)	Brn_42 (42)	Brn_65 (00)	Brn_88 (00)		
Brn_20 (20)	Brn_43 (43)	Brn_66 (00)	Brn_89 (00)		
Brn_21 (21)	Brn_44 (44)	Brn_67 (00)	Brn_90 (00)		
Brn_22 (22)	Brn_45 (45)	Brn_68 (00)	Brn_91 (00)		

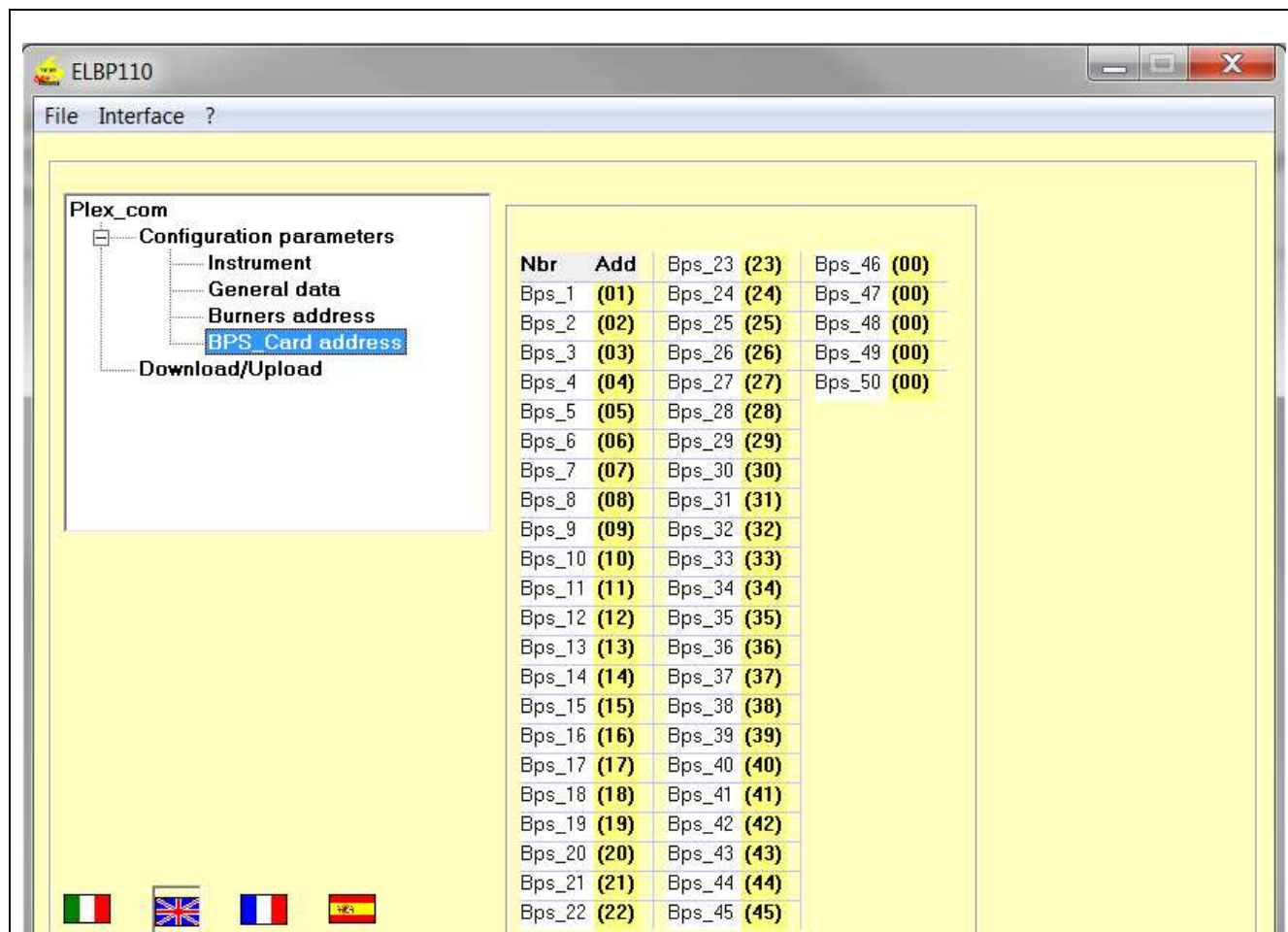






Note: in case the BPS_Card are installed and selected in the program, automatically the software allow to select up to 50 burner and not 100.

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4.4 BPS_CARD address page

The BPS_CARD address page show the address assigned to BPS-Card devices, that is the same of the burner control unit where the BPS_Card is installed.

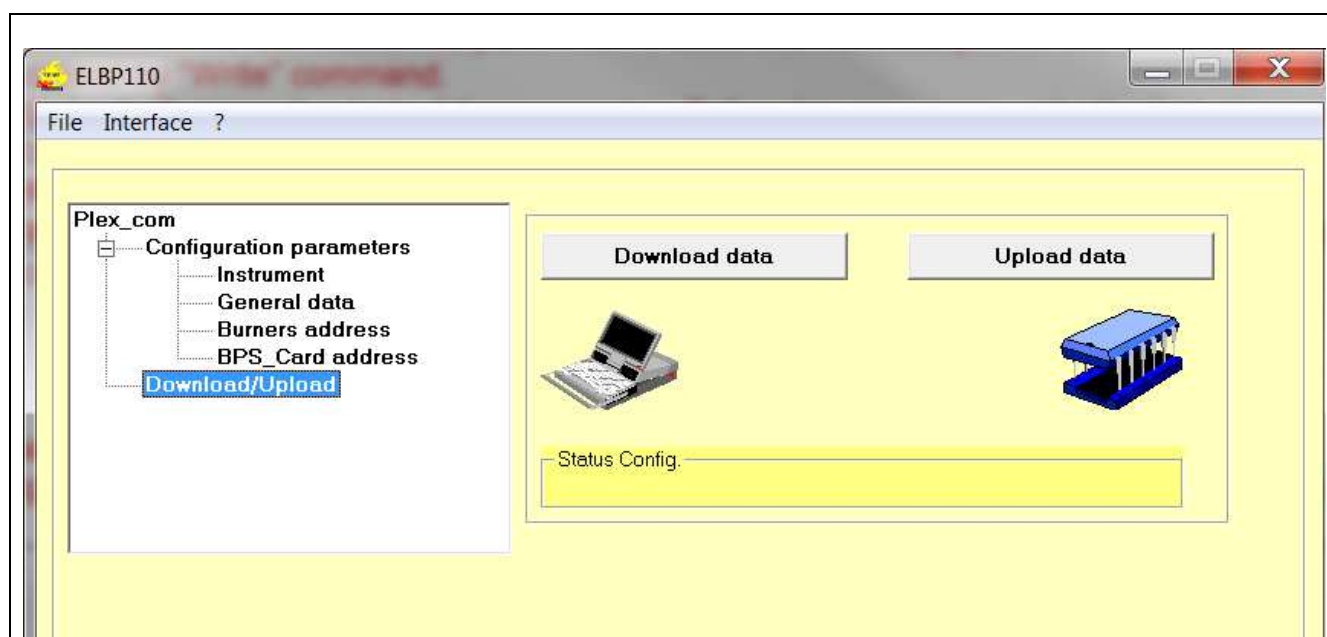


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5. Download/Upload Page

The Download/Upload page activate the communication with the PLEX-COM1. In this page it is possible write the select parameters configuration or read the actual configuration of the device.

The configuration reading it is always possible, while to write a new configuration the password it is required.



AVAILABLE SETTINGS/ BUTTONS / INDICATIONS	DESCRIPTION
Download data	Writes in the PLEX-COM1 the parameter setting chosen in the other program pages.
Upload data	Read the configuration from PLEX-COM1 device and compile the parameters setting in the other program pages.
Status configuration	Indication transfer data status: <ul style="list-style-type: none"> - Yellow: In process to receive or transmit data. - Green: Transferring data with success - Red: Transferring data error

In case of error of transmission of data please check:

- No serial connection between PC and Plex-com1.
- Serial port busy from another program
- Serial connection not correct
- The dip1 (dip-switch) isn't in ON position