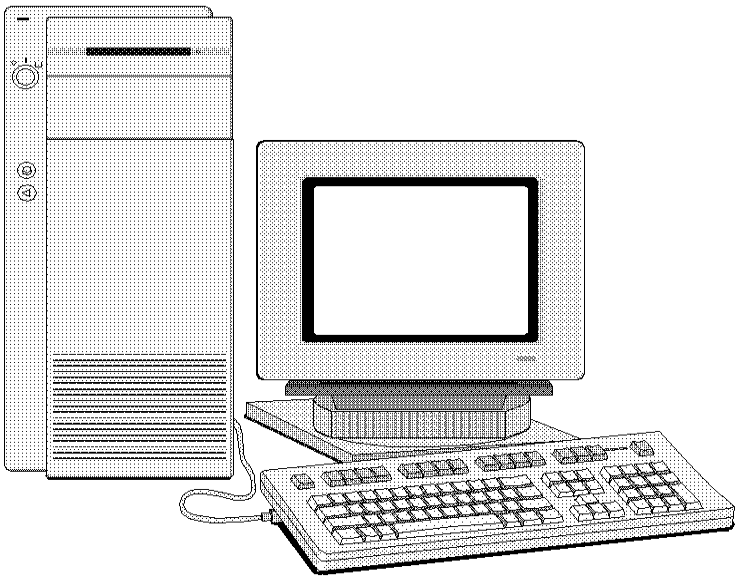
User Manual
version 1.4

PROG DB

DATA STORAGE PROGRAM

for W SERIES weight indicators
(Options: OPZWUSB_ ; OPZWDATIPC)



Load Cell Central
28175 Route 220
Milan, PA 18831

Web: www.800loadcel.com
Email: sales@800loadcel.com

Toll Free: 1-800-562-3235
Ph: 1-570-731-7048
Fax: 1-570-731-7054

KEY TO SYMBOLS

Below are the symbols used in the manual to draw the reader's attention:

Caution! Risk of electrocution.

Caution! This operation must be performed by skilled workers.

Read the following indications carefully.

Further information.

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INTRODUCTION

The PROG DB software allows data of the following LCC instruments to be stored on Personal Computer:
- W200;
- WDOS;
- WDESK;
- WINOX;
- WTAB;

Transferring data from the instrument to the PC can take place in two ways:
- Option OPZWUSB_: by USB key
- Option OPZWDATIPC: by RS-232 serial port (or RS-485 via appropriate converter).

The stored data (weighings carried out, batching data and alarms) can be consulted, printed out and used to carry out searches.

Software functions:
- Recognition of new instruments connected via serial communication;
- Recognition of new instruments from backup files;
- Customization of the known instruments, with name and notes.
- Display of single instrument data;
- Search among data of all the instruments (with the possibility to apply filters);
- Export of displayed data and of the search procedures conducted in CSV;
- Printing of displayed data and of the search procedures conducted;

INSTALLING AND CONFIGURING THE SOFTWARE

To install the program follow the procedures stated below closely.

Before handling the electrical connections of the system, ensure that the power supply is off.

MINIMUM SYSTEM REQUIREMENTS

Operating system:
Microsoft Windows® XP/Vista/7

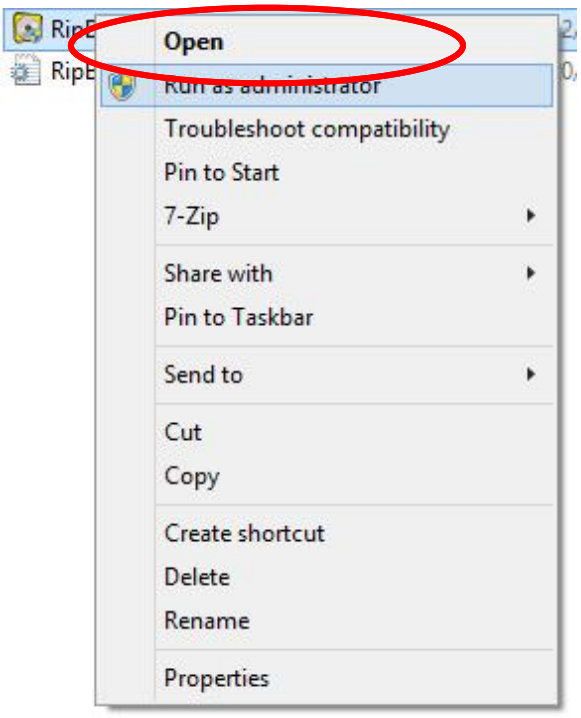
Personal Computer
- Intel Pentium 4 1.4 GHz or AMD Athlon XP 1500+
- 512 MB or more RAM
- 50 MB Hard Drive free space

It is necessary for the update "Microsoft NetFramework 3.5" to be installed (if not present you will be prompted to download it from the internet)

INSTALLING THE SOFTWARE

The supply includes a CD-ROM for installing PROG DB on PC.

1. Insert the installation CD-ROM into the CD-ROM drive of the Computer;
2. If the "automatic start" function is enabled wait for the program to start, otherwise double click the icon MY COMPUTER and then the CD-ROM drive icon, the CD contents will appear;
3. Double click on the ProgDB_v1.3.8.exe icon (or latest version) to start the installation. You may need to perform this operation as an administrator: right click on the icon and select “Run as administrator”.
4. Follow the video instructions to complete the program installation procedure;



At the end of the procedure you can start the program from Windows start menu.

CONFIGURING THE SOFTWARE

Start the program PROG DB from Windows start menu.

In operating systems following Windows Vista it is necessary to run the application in administrator mode (see **RUN AS AN ADMINISTRATOR** section).

In the main menu select Options to access the list of program settings.

LANGUAGE SETTINGS

By default the program is set to be displayed in ENGLISH.

Access the menu Options -> Language to select the desired language from the drop-down menu.
Press SAVE to confirm or CANCEL to cancel the changes.

SERIAL COMMUNICATION SETTING

The program allows the PC to be connected to an instrument via RS-232/RS-485 serial connection or to a network of instruments by RS-485 serial connection.

To communicate with the instruments you need to select the serial communication port of the PC to be used and configure the relevant communication parameters with the same values set on the instruments.

Access the menu Options -> Serial Port and set the values to be used from the drop-down menu.

- Set a communication speed (baudrate) of 38400 or higher if you want to reduce the time required for transferring data from the instruments to the PC.

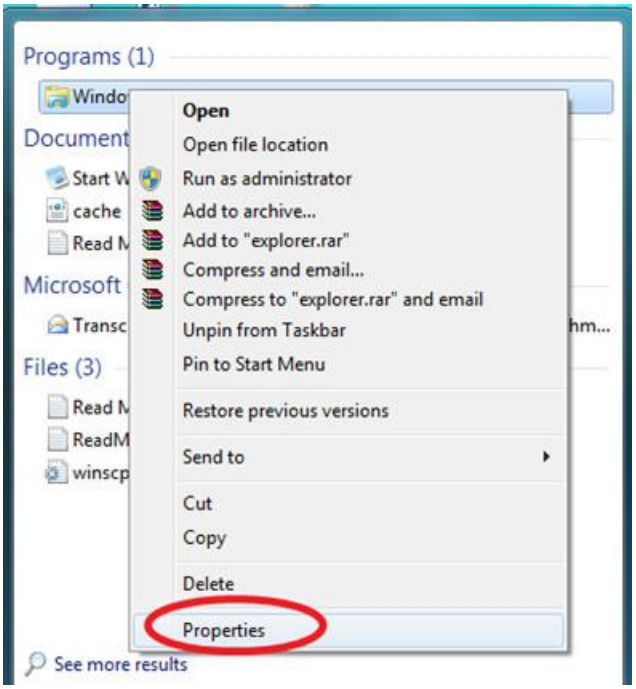
- Set the protocol MODBUS (refer to the instrument manual for further information on serial communication setting).

For further information refer to the **CONNECTION BETWEEN PC AND SERIAL PORT** section.

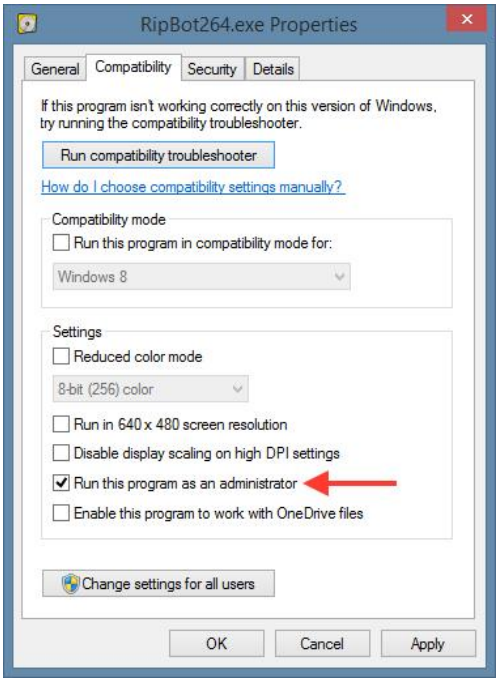
RUN AS AN ADMINISTRATOR

To make permanent the execution as an administrator, it is necessary to:

1. Open the program installation folder (by default the path is: C:\Program Files (x86)\LAUMAS\Prog_DB)
2. Select the file Prog_DB.exe and right click



3. Select Properties
4. Open the tab “Compatibility” and check: “Run this program as an administrator”



DATA TRANSFER FROM INSTRUMENT TO PC

Transferring data from the instrument to the PC into the program's working folder can take place in two ways:

- Option OPZWUSB_: by USB key
- Option OPZWDATIPC: by RS-232 serial port (or RS-485 via appropriate converter).

Once the data is transferred, to be able to display them you need to import them into the database (see section **IMPORTING DATA INTO THE DATABASE**).

DATA TRANSFER VIA SERIAL PORT (OPZWDATIPC)

Before continuing, ensure that the PC is connected to the instrument correctly and that the instrument is turned on and in standby mode.

Start the program PROG DB from Windows start menu and select the item File -> Connect from the program's main menu.

Select the instrument you want to connect to (via the drop-down menu) or enter the modbus address in the appropriate field.
Press the button CONNECT to start the connection to the instrument.

The program tries to establish a connection with the instrument and the possible responses are as follows:

- Response received: if the connection is established correctly;
- No response: in this case check the connection and the parameters of the serial port both on the instrument and in the program.

If it is a new instrument, the program recognises it and asks the user if he/she wishes to add it to the list of known instruments.

At the end of the connection procedure, you can select:

- WEIGHT: Display of weight present on the scale in real time;
- DATA: Transfer of data memory from the instrument to the PC;

Select the item DATA, press START and wait for the program to finish the data transfer.

This operation may take up to several minutes depending on the baudrate set in the serial communication.

At the end of the data transfer, a message will appear stating that the data has been transferred.

The data stored into the instrument have only been transferred to the program's working folder. In order to be able to display them you first need to import them into the database (see section **IMPORTING DATA INTO THE DATABASE**).

DATA TRANSFER VIA USB KEY (OPZWUSB_)

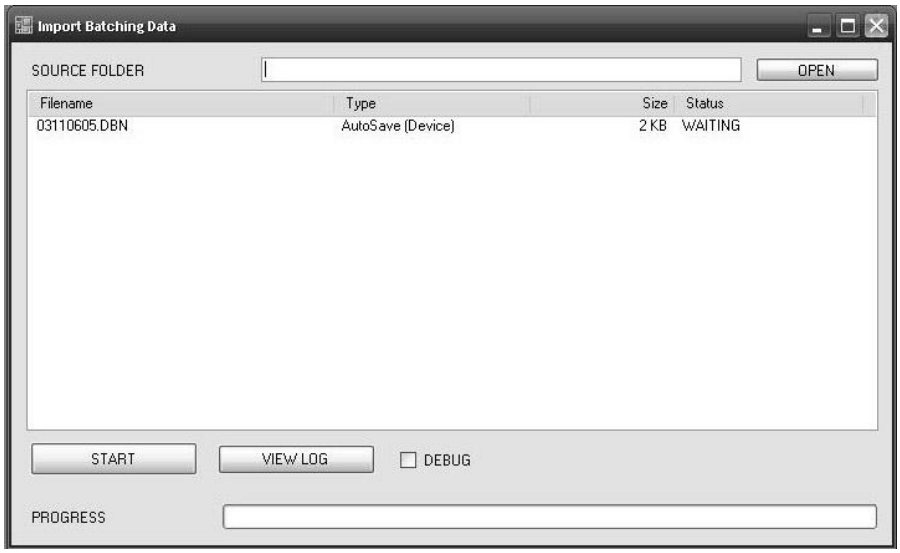
Refer to the instrument manual for information on the operation of the option OPZWUSB_ and the relevant configuration of the instrument.

After transferring the data onto the USB key as described in the instrument manual, insert the USB key into the PC.

Start the program PROG DB from Windows start menu and select the item File -> Import from the program's main menu.

Press OPEN to select the source folder of the new files, select the 'removable drive' relating to the USB key from the relevant window and press OK.

The program will transfer the files present on the USB key into the working folder of the program and will automatically appear in the list of available files.



If you have an additional USB key where the data of other instruments are present, insert it into the PC and press OPEN again.

The data stored into the instrument have only been transferred to the program's working folder. In order to be able to display them you first need to import them into the database (see section **IMPORTING DATA INTO THE DATABASE**).

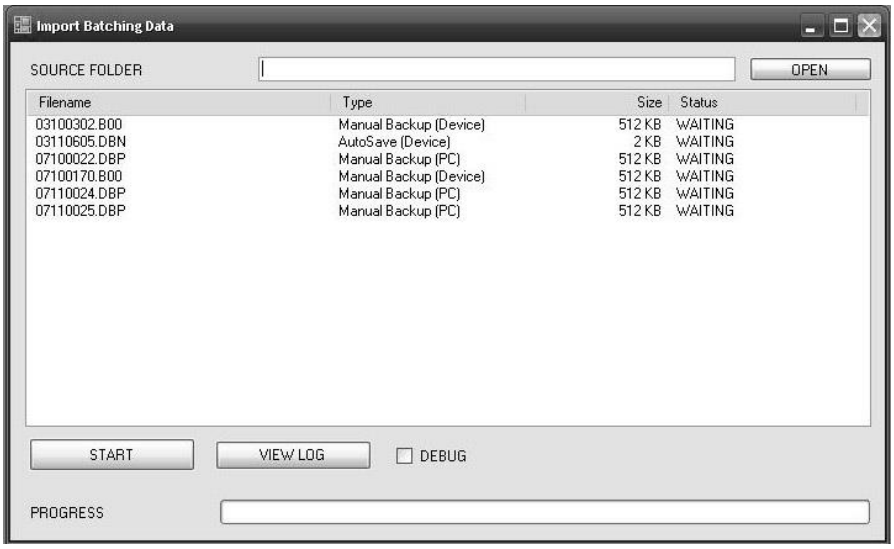
IMPORTING DATA INTO THE DATABASE

After transferring the batching data from the instrument to the working folder of PROG DB, as described in sections above, you can import the data into the database.

Start the program PROG DB from Windows start menu and select the item File -> Import from the program's main menu.

In the list of available files, all the files present inside the program's working folder are displayed.

Press START to start the procedure of automatically importing the data into the database.



The program processes one file at a time and its status goes from WAITING to IN PROGRESS until the import stage has been completed. Once the import is finished the file is marked as COMPLETED.
Once all file present in the working folder have been imported you can display the LOG of the operation by pressing the button VIEW LOG.

Close the import window and move onto displaying and searching for data.

DATA DISPLAY

The software allows the data to be displayed via the following commands:

1. View -> Instruments (display of data by instrument)
2. View -> Search (display of batching data via searches)
3. View -> Production (display of production data)
4. View -> Consumption (display of consumption data)

1) DISPLAY BY INSTRUMENT

From the main menu select View -> Instruments.
The list of known instruments appears and for each instrument the total number of batching cycles carried out is shown.

File –> Print Preview: displays the list of instruments to print, press print icon to start the printing.
Data –> Export CSV: exports the list of instruments in CSV format.

After selecting the desired instrument you can:

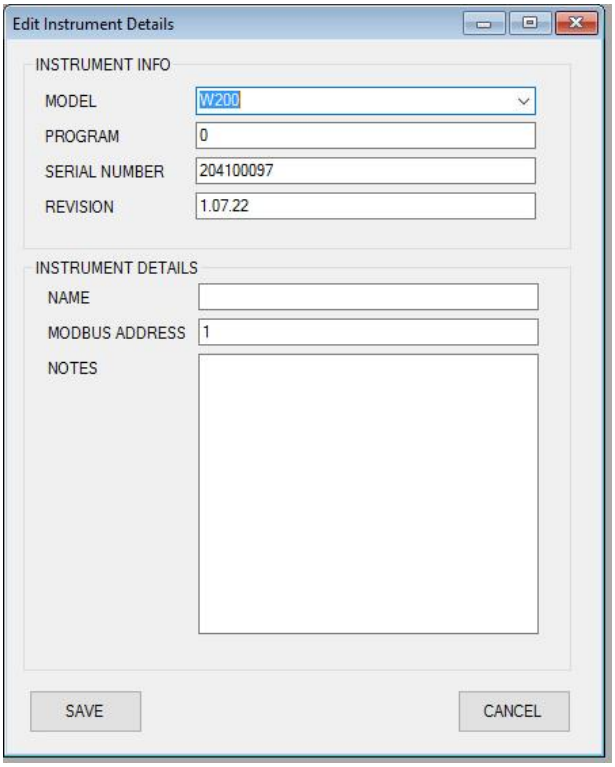
- Modify certain descriptive parameters of the instrument (e.g. add a name or notes);
- Display the list of recorded weights (only available for BASE, REVERSE or weighbridge BGE model instruments);
- Display the list of batching cycles (only available for LOAD, UNLOAD and 3/6/14 PRODUCTS instruments).

MODIFYING INSTRUMENT PARAMETERS

Select the instrument you want to modify and press Modify:

In the first section the factory data of the instrument and the name of the program set are shown. These data may not be modified.

In the second section you can insert the name of the instrument and any notes, which will be displayed in the table and printed in the reports.



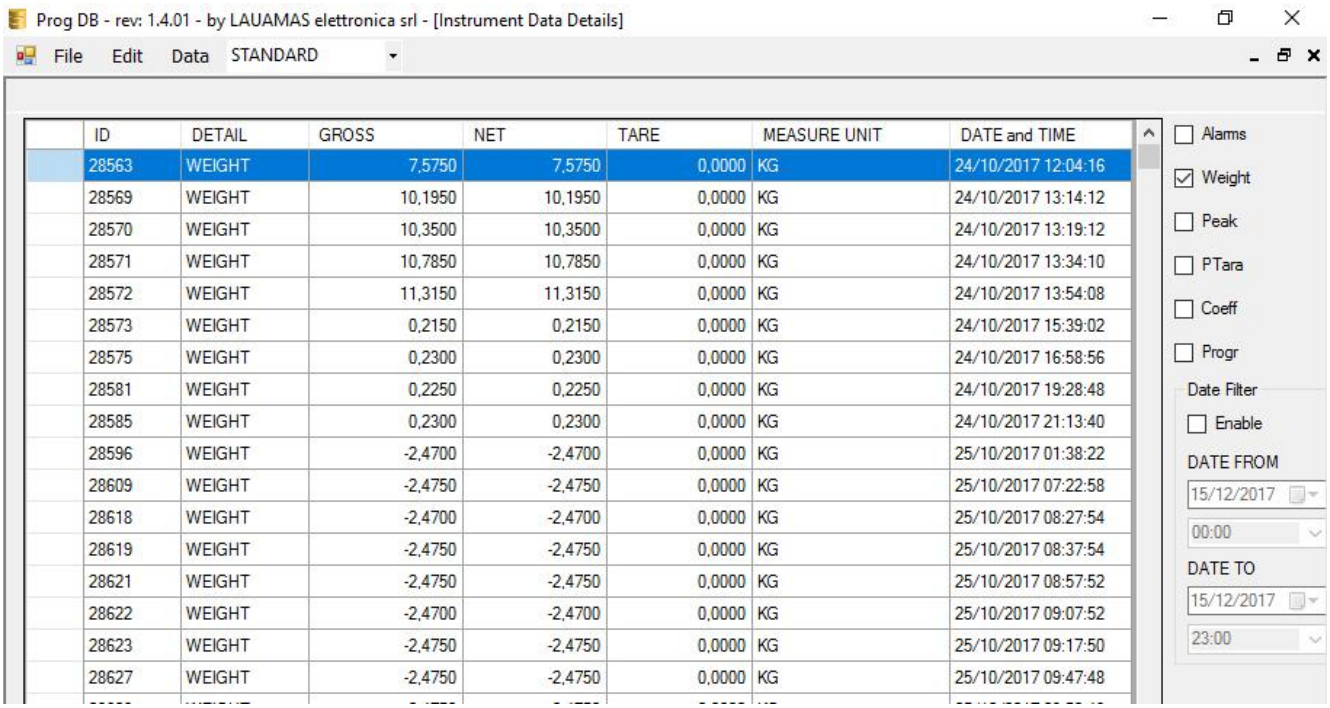
DISPLAYING THE LIST OF RECORDED WEIGHTS

Display available only for BASE or REVERSE instruments.

The date filter is automatically set on the current day. To disable it uncheck the “date” field.
From the instrument display select View -> Details.
The list of weights which the instrument has recorded and any alarms appears.

At the top of the window it is possible to choose between different views of the data based on operation selected:

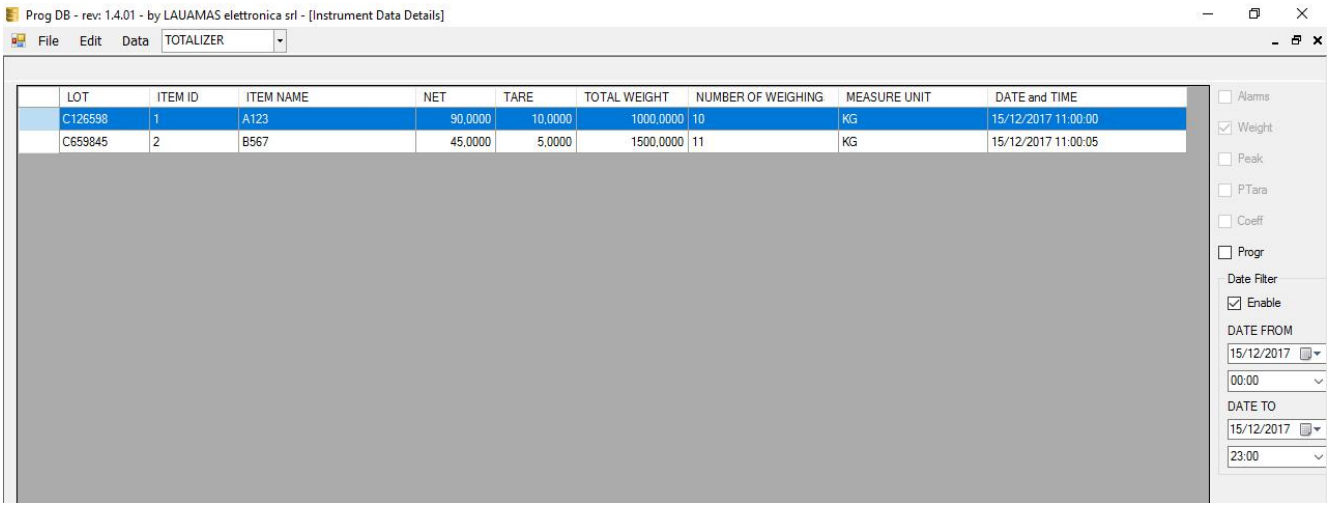
- STANDARD: displays a list of weighed values and alarms (if present).



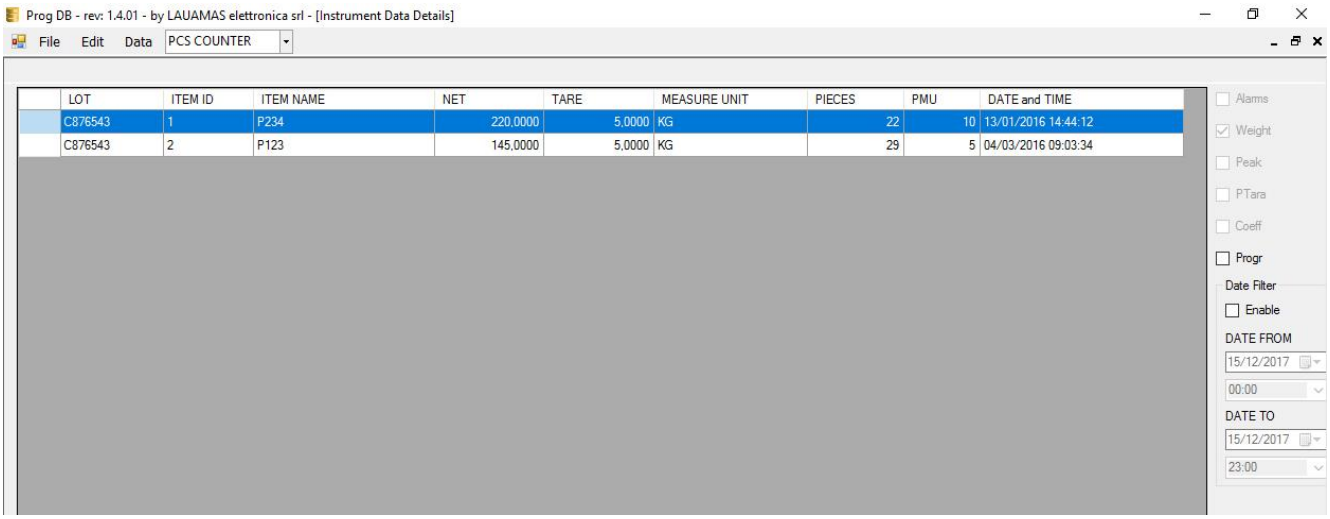
ID	DETAIL	GROSS	NET	TARE	MEASURE UNIT	DATE and TIME
28563	WEIGHT	7,5750	7,5750	0,0000	KG	24/10/2017 12:04:16
28569	WEIGHT	10,1950	10,1950	0,0000	KG	24/10/2017 13:14:12
28570	WEIGHT	10,3500	10,3500	0,0000	KG	24/10/2017 13:19:12
28571	WEIGHT	10,7850	10,7850	0,0000	KG	24/10/2017 13:34:10
28572	WEIGHT	11,3150	11,3150	0,0000	KG	24/10/2017 13:54:08
28573	WEIGHT	0,2150	0,2150	0,0000	KG	24/10/2017 15:39:02
28575	WEIGHT	0,2300	0,2300	0,0000	KG	24/10/2017 16:58:56
28581	WEIGHT	0,2250	0,2250	0,0000	KG	24/10/2017 19:28:48
28585	WEIGHT	0,2300	0,2300	0,0000	KG	24/10/2017 21:13:40
28596	WEIGHT	-2,4700	-2,4700	0,0000	KG	25/10/2017 01:38:22
28609	WEIGHT	-2,4750	-2,4750	0,0000	KG	25/10/2017 07:22:58
28618	WEIGHT	-2,4700	-2,4700	0,0000	KG	25/10/2017 08:27:54
28619	WEIGHT	-2,4750	-2,4750	0,0000	KG	25/10/2017 08:37:54
28621	WEIGHT	-2,4750	-2,4750	0,0000	KG	25/10/2017 08:57:52
28622	WEIGHT	-2,4700	-2,4700	0,0000	KG	25/10/2017 09:07:52
28623	WEIGHT	-2,4750	-2,4750	0,0000	KG	25/10/2017 09:17:50
28627	WEIGHT	-2,4750	-2,4750	0,0000	KG	25/10/2017 09:47:48

In case of metric instrument, the fields related to the alibi ID will also be displayed.

- TOTALIZER: displays a list of weighed values and totals.



- PIECE COUNTER: displays a list of weighed values with number of pieces and totals.



In the right-hand side of the screen you can set the search filters.

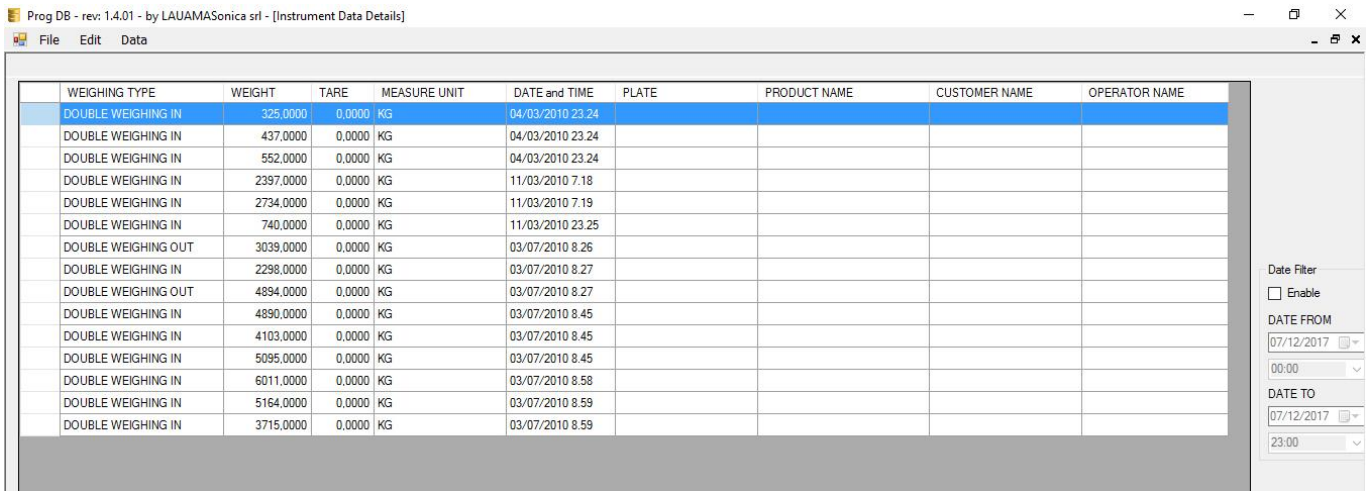
- WEIGHT: displays a list of weighed values;
- ALARMS: displays a list of alarms ;
- PEAK: displays PEAK value (if active);
- COEFF: displays COEFF value (if active);
- PROGR: displays the progressive weighed values (if active the registration of progressive weighed number)
- DATE FILTER: enables the filter by date FROM/TO;

File –> Print Preview: displays the list of data to print, press print icon to start the printing.
Data –> Export CSV: exports the data in CSV format.

DISPLAYING THE LIST OF RECORDED WEIGHTS (WEIGHBRIDGE)

Display available only for weighbridge instruments, BGE model.

The program automatically enables the date filter on the current day. To disable it uncheck the "date" field.
From the instrument display select View -> Details.
The list of the weights recorded by the instrument appears.



WEIGHING TYPE	WEIGHT	TARE	MEASURE UNIT	DATE and TIME	PLATE	PRODUCT NAME	CUSTOMER NAME	OPERATOR NAME
DOUBLE WEIGHING IN	325,0000	0,0000	KG	04/03/2010 23.24				
DOUBLE WEIGHING IN	437,0000	0,0000	KG	04/03/2010 23.24				
DOUBLE WEIGHING IN	552,0000	0,0000	KG	04/03/2010 23.24				
DOUBLE WEIGHING IN	2397,0000	0,0000	KG	11/03/2010 7.18				
DOUBLE WEIGHING IN	2734,0000	0,0000	KG	11/03/2010 7.19				
DOUBLE WEIGHING IN	740,0000	0,0000	KG	11/03/2010 23.25				
DOUBLE WEIGHING OUT	3039,0000	0,0000	KG	03/07/2010 8.26				
DOUBLE WEIGHING IN	2298,0000	0,0000	KG	03/07/2010 8.27				
DOUBLE WEIGHING OUT	4894,0000	0,0000	KG	03/07/2010 8.27				
DOUBLE WEIGHING IN	4890,0000	0,0000	KG	03/07/2010 8.45				
DOUBLE WEIGHING IN	4103,0000	0,0000	KG	03/07/2010 8.45				
DOUBLE WEIGHING IN	5095,0000	0,0000	KG	03/07/2010 8.45				
DOUBLE WEIGHING IN	6011,0000	0,0000	KG	03/07/2010 8.58				
DOUBLE WEIGHING IN	5164,0000	0,0000	KG	03/07/2010 8.59				
DOUBLE WEIGHING IN	3715,0000	0,0000	KG	03/07/2010 8.59				

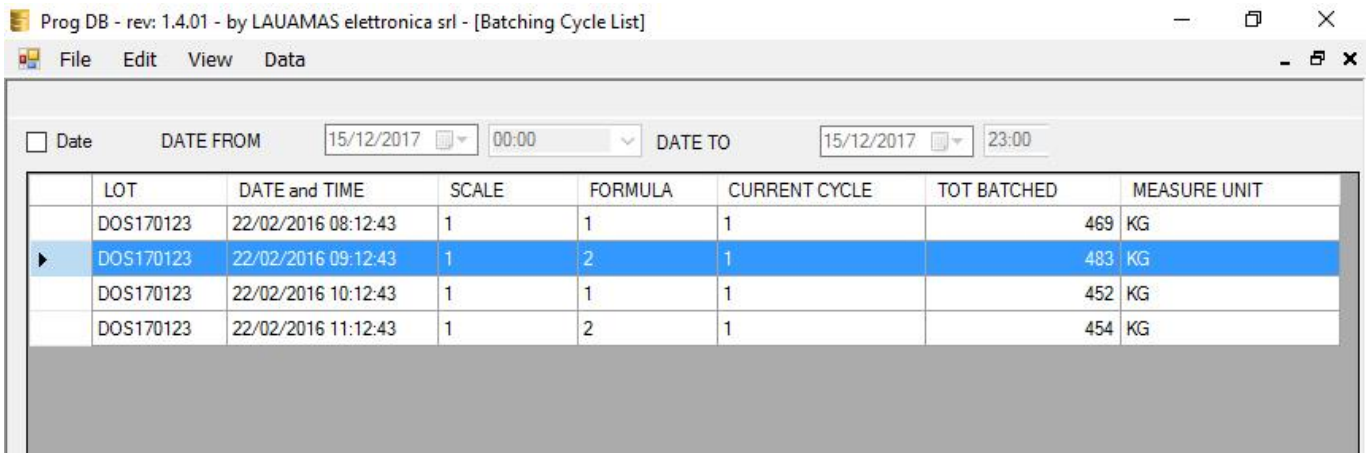
In the right-hand side of the screen it is possible to set the search filter related to the weight registration date.
File -> Print Preview: displays the list of data to print, press the print icon to start printing.
Data -> Export CSV: exports the data in CSV format.

DISPLAYING THE LIST OF BATCHING CYCLES

Display available only for LOAD, UNLOAD and 3/6/14 PRODUCTS instruments.

The date filter is automatically set on the current day. To disable it uncheck the “date” field.

From the instrument display select View -> Details.
The list of batching cycles which the instrument has recorded and any alarms appears (in standby mode).



LOT	DATE and TIME	SCALE	FORMULA	CURRENT CYCLE	TOT BATCHED	MEASURE UNIT
DOS170123	22/02/2016 08:12:43	1	1	1	469	KG
DOS170123	22/02/2016 09:12:43	1	2	1	483	KG
DOS170123	22/02/2016 10:12:43	1	1	1	452	KG
DOS170123	22/02/2016 11:12:43	1	2	1	454	KG

The total batched value for each cycle is shown in relation to the theoretical total value to be dosed and the descriptions of any alarms are shown together with the start and end date/time.

File –> Print Preview: displays the list of data to print, press print icon to start the printing.
Data –> Export CSV: exports the data in CSV format.

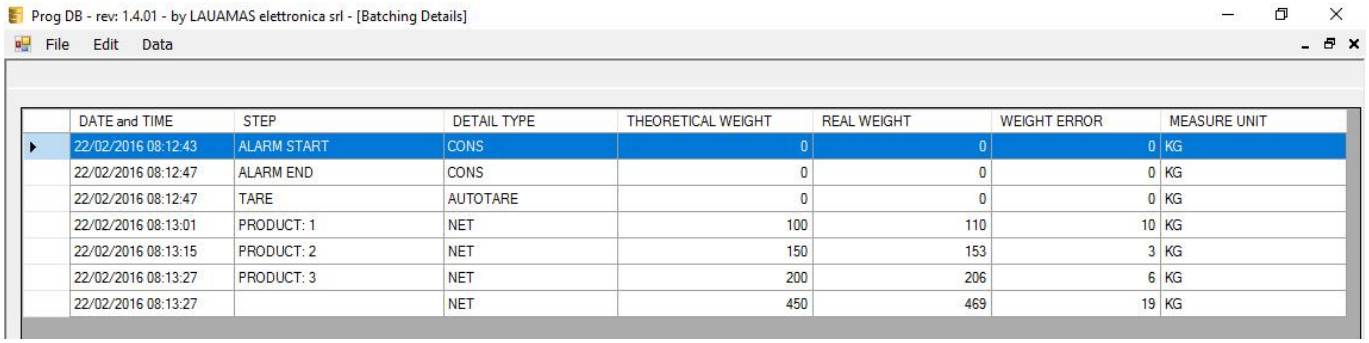
DISPLAYING THE BATCHING CYCLE DETAIL

Display available only for LOAD, UNLOAD and 3/6/14 PRODUCTS instruments.

To display the detail of a single batching cycle, do as follows:

- Select the batching cycle whose detail you want to display:
- Select View -> Details from the main menu.

The list of events which the instrument has recorded during the batching cycle appears:



DATE and TIME	STEP	DETAIL TYPE	THEORETICAL WEIGHT	REAL WEIGHT	WEIGHT ERROR	MEASURE UNIT
22/02/2016 08:12:43	ALARM START	CONS	0	0	0	KG
22/02/2016 08:12:47	ALARM END	CONS	0	0	0	KG
22/02/2016 08:12:47	TARE	AUTOTARE	0	0	0	KG
22/02/2016 08:13:01	PRODUCT: 1	NET	100	110	10	KG
22/02/2016 08:13:15	PRODUCT: 2	NET	150	153	3	KG
22/02/2016 08:13:27	PRODUCT: 3	NET	200	206	6	KG
22/02/2016 08:13:27		NET	450	469	19	KG

For each batched product the REAL WEIGHT is shown in relation to the THEORETICAL WEIGHT; the column WEIGHT ERROR contains the comparison between the two values.

File –> Print Preview: displays the list of data to print, press print icon to start the printing.
Data –> Export CSV: exports the data in CSV format.

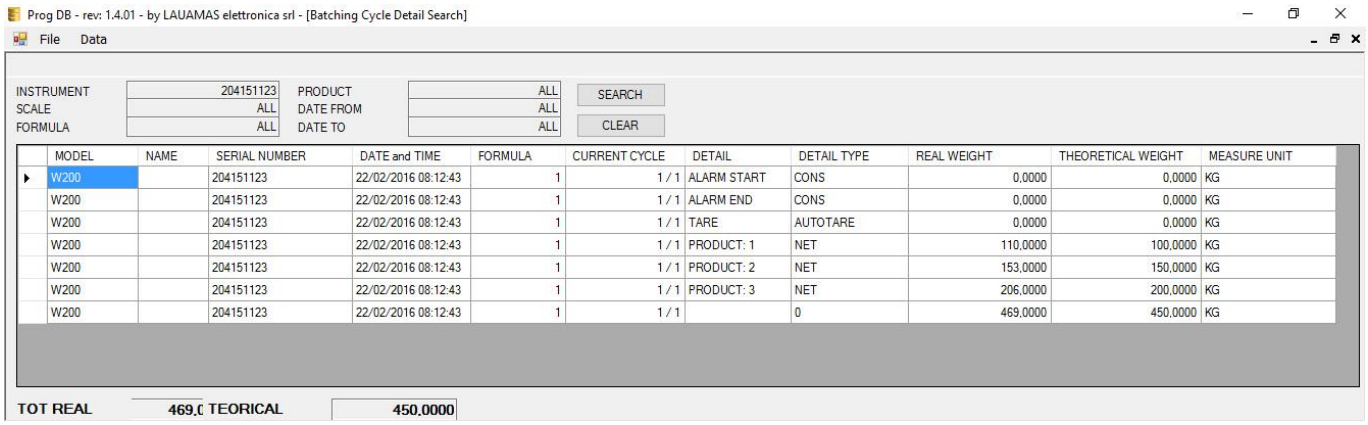
2) BATCHING DATA SEARCH

From the main menu select View -> Search.

Press SEARCH to display the filters applicable to the searches:

- INSTRUMENT: search solely for data of the selected instrument;
- SCALE: set the number of the desired scale;
- FORMULA: set the number of the desired formula;
- PRODUCT: set the number of the desired product;
- DATE FROM: set the start date and time for the search;
- DATE TO: set the end date and time for the search;

Press APPLY to start the search for the desired data.



At the bottom of the window the TOT REAL and the TOT THEORETICAL are shown.

File –> Print Preview: displays the list of data to print, press print icon to start the printing.
Data –> Export CSV: exports the data in CSV format.

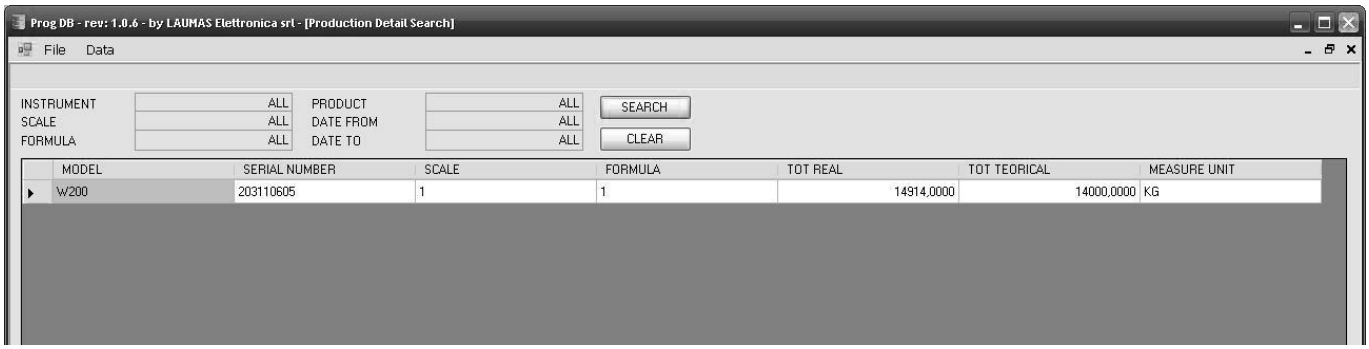
3) PRODUCTION DISPLAY

From the main menu select View -> Production.
The software allows searches to be carried out on the data to calculate the quantity consumed for each formula (PRODUCTION).

Press SEARCH to display the filters applicable to the searches:

- INSTRUMENT: Search solely for data of the selected instrument;
- SCALE: Set the number of the desired scale;
- DATE FROM: Set the start date and time for the search;
- DATE TO: Set the end date and time for the search;

Press APPLY to start the search for the desired data.



The list of production (theoretical and actual) is displayed broken down by:

- SERIAL NUMBER (corresponds to the serial number of the instrument);
- SCALE;
- FORMULA;

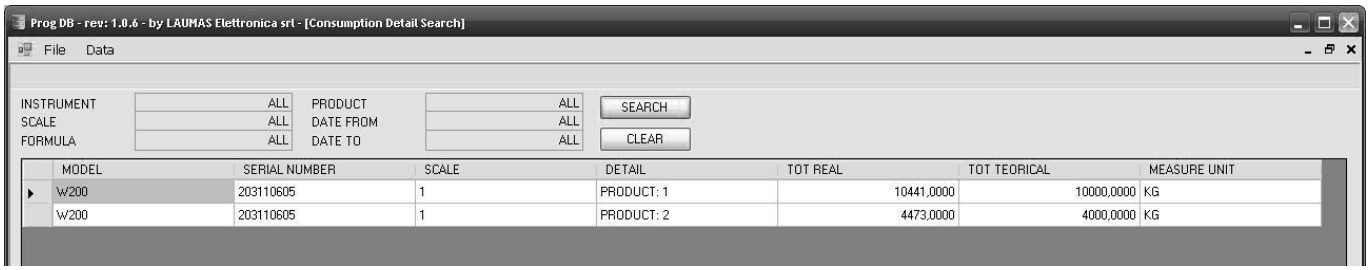
4) CONSUMPYION DISPLAY

From the main menu select View -> Consumption.
The software allows searches to be carried out on the data to calculate the quantity consumed for each product (CONSUMPTION).

Press SEARCH to display the filters applicable to the searches:

- DEVICE: Search solely for data of the selected instrument;
- SCALE: Set the number of the desired scale;
- DATE FROM: Set the start date and time for the search;
- DATE TO: Set the end date and time for the search;

Press APPLY to start the search for the desired data.



The list of consumption (theoretical and actual) is displayed broken down by:

- SERIAL NUMBER (corresponds to the serial number of the instrument);
- SCALE;
- PRODUCT;

File –> Print Preview: displays the list of data to print, press print icon to start the printing.
Data –> Export CSV: exports the data in CSV format.

DATA PRINTOUT

To set the printer to work with, from the main menu select File -> Printer Setup.

To display the print preview, from the main menu select File -> Print Preview, then press print icon to start the printing.

Batching Cycle Detail Search

INSTRUMENT ALL SCALE ALL FORMULA ALL PRODUCT ALL DATE FROM ALL

DATE TO ALL TOT REAL 14914,0000 TOT TEORICAL 14000,0000

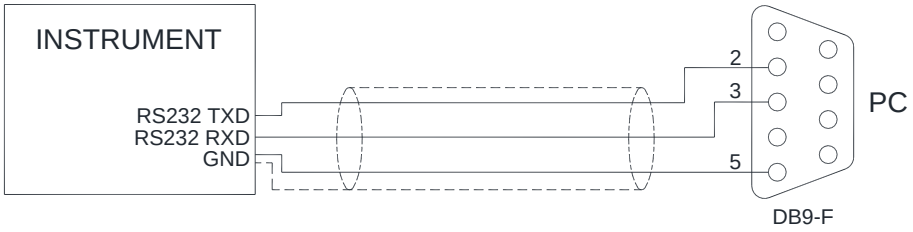
MODEL	SERIAL NUMBER	DATE and TIME	FORMULA	CURRENT CYCLE	DETAIL	DETAIL TYPE	REAL WEIGHT	THEORETICAL WEIGHT	MEASURE UNIT
W200	2031109B25	02-07-2012 16.13.10	1	1 / 20	TARE	AUTOTARE	0,0000	0,0000	KG
W200	2031109B25	02-07-2012 16.13.10	1	1 / 20	PRODUCT: 1	NET	520,0000	500,0000	KG
W200	2031109B25	02-07-2012 16.13.10	1	1 / 20	PRODUCT: 2	NET	220,0000	200,0000	KG
W200	2031109B25	02-07-2012 16.13.23	1	2 / 20	TARE	AUTOTARE	0,0000	0,0000	KG
W200	2031109B25	02-07-2012 16.13.23	1	2 / 20	PRODUCT: 1	NET	520,0000	500,0000	KG
W200	2031109B25	02-07-2012 16.13.23	1	2 / 20	PRODUCT: 2	NET	230,0000	200,0000	KG
W200	2031109B25	02-07-2012 16.13.36	1	3 / 20	TARE	AUTOTARE	0,0000	0,0000	KG
W200	2031109B25	02-07-2012 16.13.36	1	3 / 20	PRODUCT: 1	NET	521,0000	500,0000	KG
W200	2031109B25	02-07-2012 16.13.36	1	3 / 20	PRODUCT: 2	NET	216,0000	200,0000	KG

Press CLOSE to exit without printing.

APPENDICES

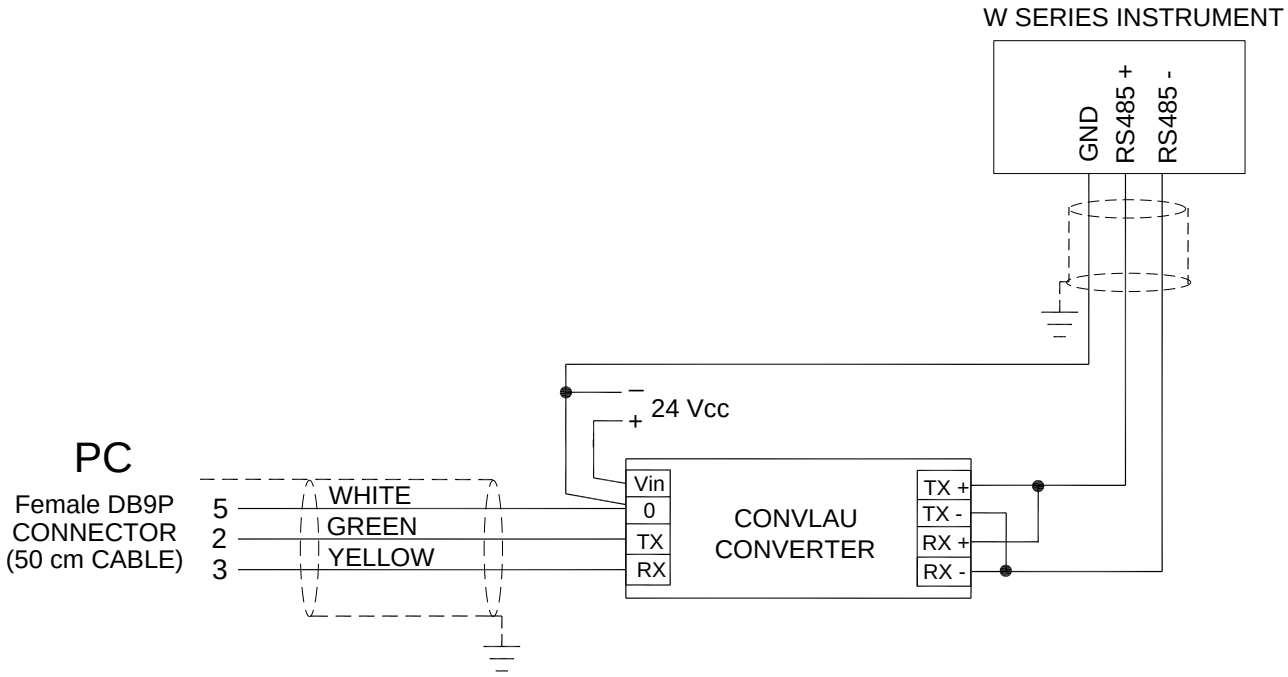
CONNECTION BETWEEN PC AND SERIAL PORT

RS232 SERIAL CONNECTION



STRUMENTO	GND	TXD	RXD
W200	2	4	3
WDOS	2	4	3
WDESK	8	9	10
WINOX	8	9	10

CONNECTION TO RS485 VIA CONVLAU RS232 CONVERTER



INSTRUMENT	GND	RS485 +	RS485 -
W200	2	18	17
WDOS	2	18	17
WDESK	8	6	5
WINOX	8	6	5

If the RS485 network is longer than 100 metres or if baudrates higher than 9600 are used, two terminal resistors are required at the ends of the network. Connect two 120 Ohm resistors between the + and '–' terminals of the line on the terminal strip of the instruments furthest away. Should there be different instruments or converters, refer to the specific manuals to determine whether it is necessary to connect the above-mentioned resistors.

CHECK CONNECTIONS

After connecting the instrument to the PC, do as follows:

1. Start the Prog DB software;
2. Check the settings of the serial port on the instrument (*MOdbUS* protocol);
3. Check that the settings of the serial port of the PC (Options -> Serial Port) are correct (same values as: Baudrate, Parity, StopBit);
4. Start the instrument connection (File -> Connect) by selecting the desired instrument from the drop-down menu or by entering the corresponding Modbus address);
5. Press CONNECT and wait for the response from the program;

If the connection is unsuccessful, you are advised to repeat the procedure using a lower BaudRate.

MS EXCEL DATA EXPORT

Open the screen to be exported and do one of the following:

Standard method (also import columns headings):
Using filters select the data to be exported and in the toolbar press: Data –> Export CSV.
Open MS Excel and select: Data –> Import external data -> Import data.
Browse folders to find and select the exported file, follow the on-screen instructions to complete the import.

Quick method (import values only):
Select rows to be exported and press CTRL+C (copy), open Excel and select cell A1, press CTRL+V (paste).

Load Cell Central
28175 Route 220
Milan, PA 18831

Web: www.800loadcel.com
Email: sales@800loadcel.com

Toll Free: 1-800-562-3235
Ph: 1-570-731-7048
Fax: 1-570-731-7054