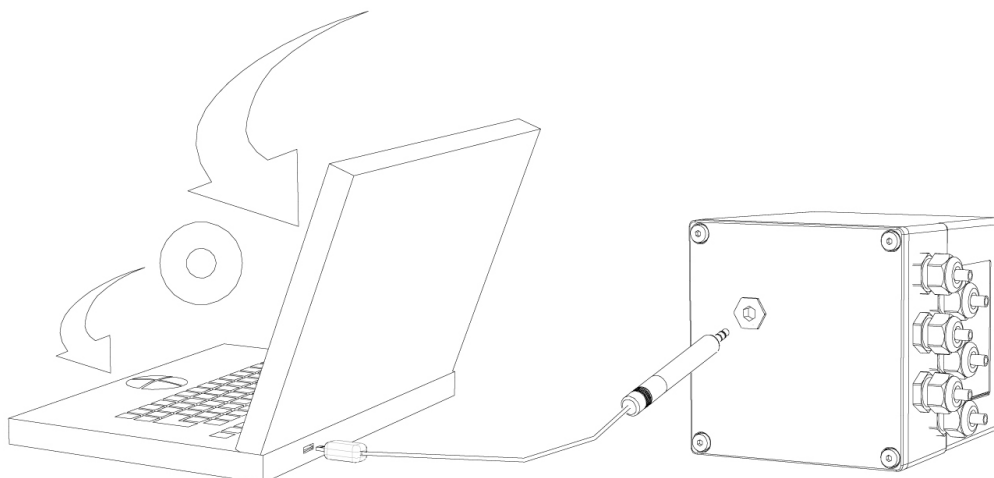
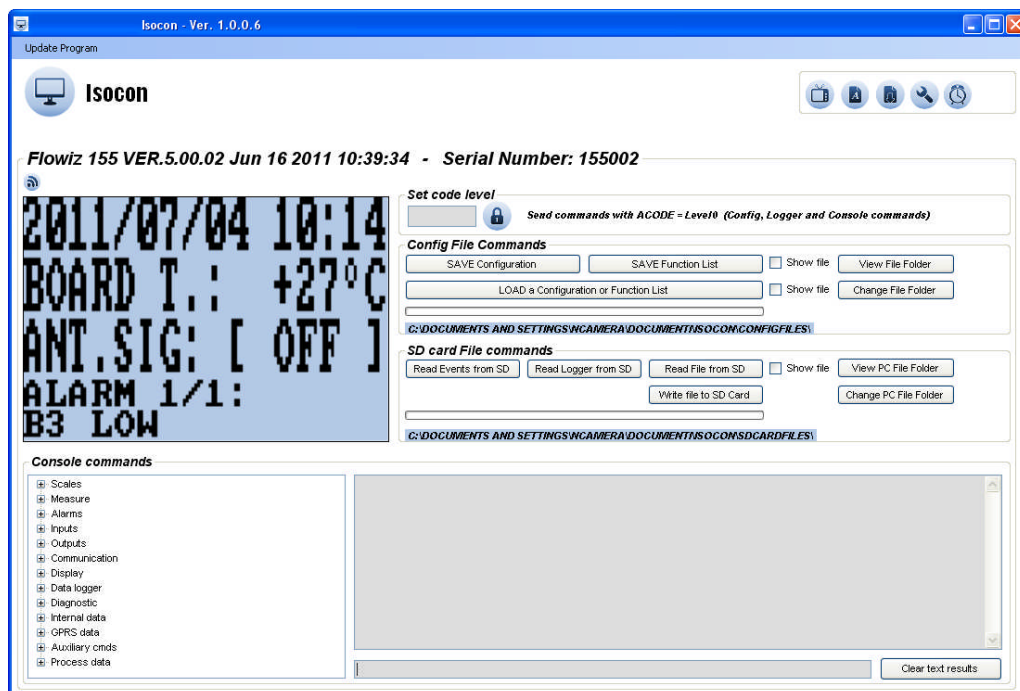




# ISOCON Software Interface

Installation, Operation and  
Maintenance Manual

30120-49 Rev. 1.0  
November, 2012





## CONTENTS

1.0 Introduction .....	1
2.0 Installation .....	2
3.0 Connecting ISOCON and PC .....	3
4.0 Programming the Converter using ISOCON .....	4
5.0 Connection Details .....	5
6.0 Window Sections .....	6
7.0 ISOCON Syntax Commands, Read, Set and Help .....	7
8.0 Configuration File Commands .....	8-9
9.0 ISOCON Update .....	10
10.0 Error Codes .....	11

Copyright © 1997-2012 McCrometer, Inc. All printed material should not be changed or altered without permission of McCrometer. Any published technical data and instructions are subject to change without notice. Contact your McCrometer representative for current technical data and instructions.



3255 WEST STETSON AVENUE • HEMET, CALIFORNIA 92545 USA  
TEL: 951-652-6811 • 800-220-2279 • FAX: 951-652-3078 Printed In The U.S.A.  
Lit. 30120-49 Rev. 1.0/11-12



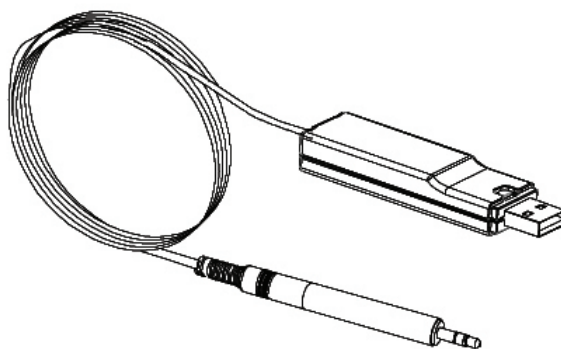
## 1.0 Introduction

ISOCON is a real-time interface designed to simplify compatibility between any converter of the M or L series to a PC, notebook or other compatible IBM®

The most important functionalities of the ISOCON interface are:

- Set, read and execute all functions with an alphanumeric string (ETP COMMAND)
- Simulation of instrument display
- Instrument data logger download
- Visualization of data downloaded from data logger

The physical connection between a PC and converter is done through an IF2 cable, read the corresponding manual for details.



Each converter is configurable in two ways:

- Through the converter keypad (see converter installation, operation and maintenance manual)
- Through the ISOCON interface

	ISOCON INTERFACE	CONVERTER	NOTE
SETTING BY ALPHANUMERIC STRING	✓	NOT POSSIBLE	<i>It might be too difficult to insert data by the converter keypad.</i>
SETTING ALL FUNCTIONS	✓	NOT POSSIBLE	All functions are not available via the converter display (the available functions on display depend on the converter model).
SHOW ETP COMMAND AND DISPLAY FUNCTIONS	✓	ONLY DISPLAY FUNCTIONS	

## 2.0 Installation

### Requirements

- PC with Intel® i486® or Pentium® processor
- Microsoft Windows 2000®, Windows Xp®, Windows Vista® or Windows 7® operating system
- 32MB RAM
- Hard disk with at least 10MB of available space
- CD-ROM unit
- USB socket

### Installation

The ISOCON program must be installed from the CD-ROM. Install the first component from the hard disk and operate the program from this unit.



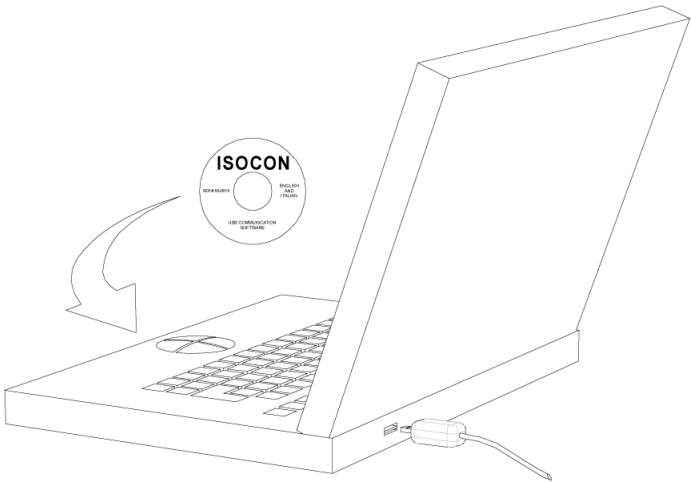
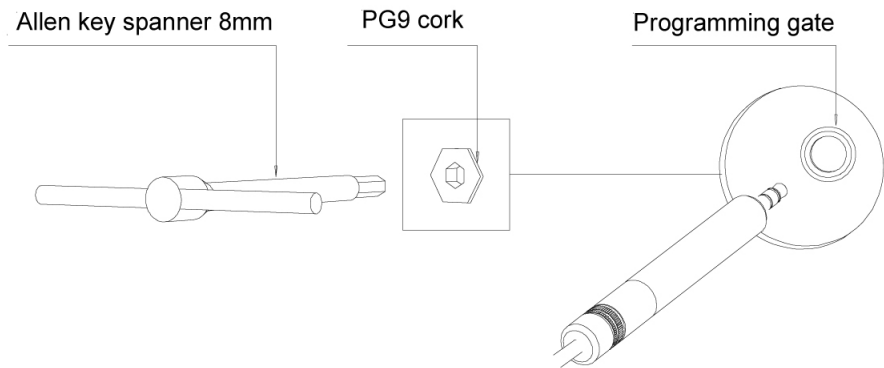
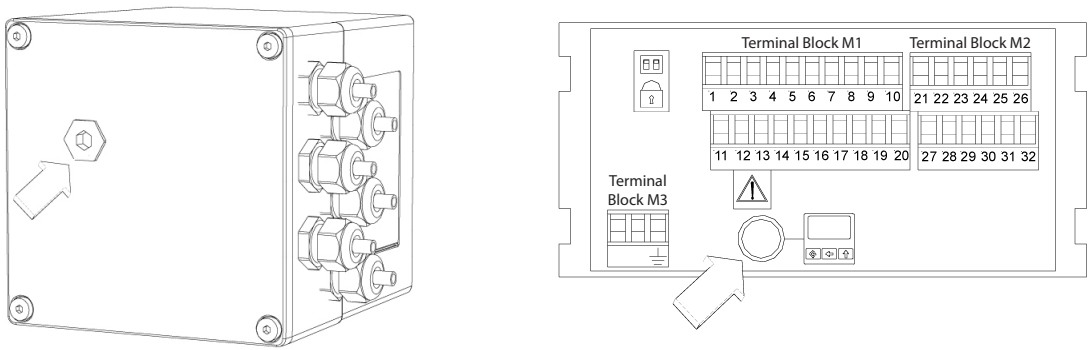
**If a previous version of the software is present, it is recommended to uninstall it before installing the new version.**

To install the application:

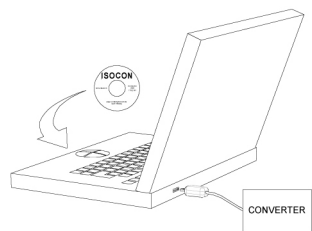
- Close all the applications in use.
- Insert the CD into the CD-ROM unit.
- In the installation dialog box, click "Yes" to pass to the following window and accept the license (if the installation does not start automatically launch the only file .exe in the CD).
- Click "Next" to continue.
- After accepting the license agreement, click "Next".
- To change the file destination folder, select "Change..." and specify the desired folder.
- Click "Next" to continue.
- Select "Install" to confirm and proceed with the installation. At the end, a message will point out that the software has been installed.
- Select "Finish".

To launch the application click on the desktop icon symbol.

3.0 Connecting ISOCON and PC



4.0 Programming the Converter using ISOCON



ISOCON is a software interface that allows the user to send commands to the converter via a USB PC port.

Converter model and firmware version

Serial Number

Access code set

Converter display

Selected commands appear here

Full list commands

Input windows, to read, execute or set the command value

BUTTON AVAILABLE ON PC KEYBOARD	BUTTON AVAILABLE ON CONVERTER KEYPAD
	 LONG PUSH
	 LONG PUSH
	 LONG PUSH


BUTTON MEANING	
	SHOW/HIDE CONVERTER DISPLAY
	SHOW/HIDE CONSOLE COMMANDS
	REFRESH TREEVIEW TOOLTIPS
	SHOW/HIDE COM PORT AND CONNECTION DETAILS
	SEND PC DATA AND TIME TO THE CONVERTER
	SET CUSTOM LEVEL CODE

The icon appears at the top left of the converter display while a pc keyboard button is pushed. When the converter display is hidden, the icon symbol appears, (near the clock) every 10 seconds to indicate the converter communication.

**NOTE:** After any language change it is recommended to click the "Refresh" icon to update the console commands.



## 5.0 Connection Details

Connection details are shown by clicking on the corresponding icon symbol . Connection details permit the user to set the RS 232 connection port while the auxiliary module is connected.

This section allows the user to view and/or modify important details regarding the connection to the converter:

- Connector type used
- Connection port
- Connection speed
- Address of the device that receives the commands
- Address of the device that sends the commands
- Converter search mode auto or manual



About the converter connection cable, ISOCON is set with "USB IF2 Cable only"; if the customer does not use the IF2 cable, this flag must be deselected.

Possible settings of RS 232 port connector type used are:

- **Jack Connection (jack conn.):** When the physical connection between the PC and converter is made through an IF2 cable connected to the board female jack connector
- **Modulo Auxiliary (modulo aux.):** TX and RX signal of a standard RS232 serial cable connected to the terminals of an auxiliary COM port of the converter.


After selecting the RS 232 port, it is possible to establish a connection in the following ways:

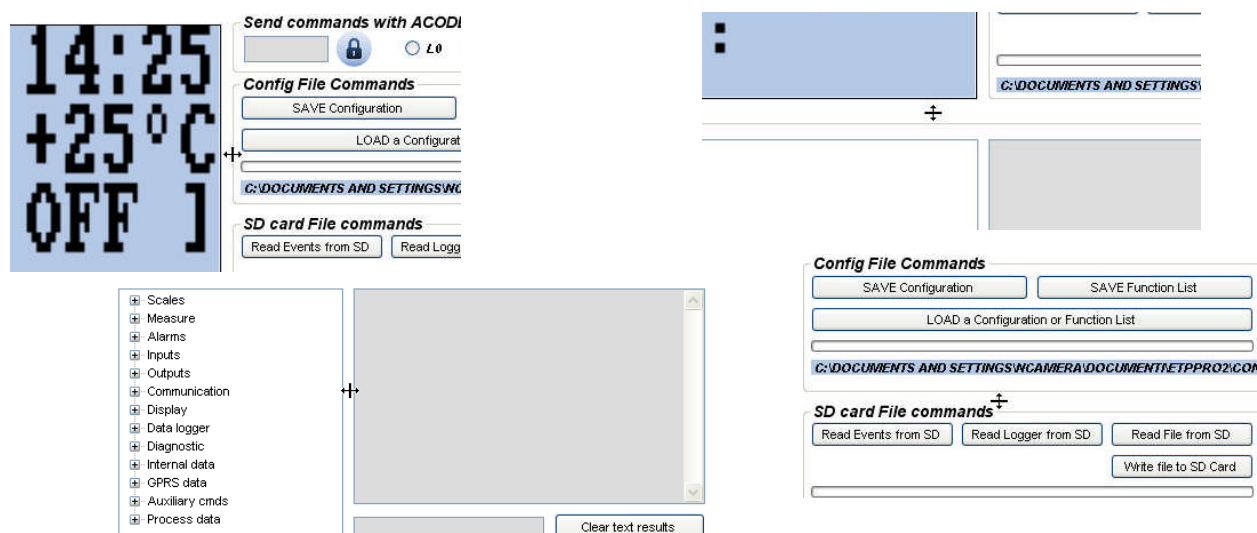
- Manual mode: Selecting the communication port and its speed (only for RS 232 – modulo aux.), the **Manual** key establishes the connection.
- Automatic connection search: Pressing the **Autosearch** key to start it (without setting communication port and speed).

Supported ports from COM1 to COM32.

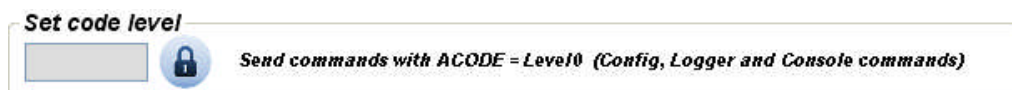
## 6.0 Window Sections

### RESIZE

Resize the dimension of a window section by moving the double arrow cursor . All resizing is memorized for successive software opening/closing (except the Config File Commands which does not memorize any movement).



### SET CODE LEVEL



The Set Code Level is equivalent to the ETP command ACODE and allows the user to insert the level code (2 or upper) to modify:

- level commands
- configuration and function list files

### CONSOLE COMMANDS

This section lists all the commands available. By positioning the mouse pointer over the command a mnemonic's description will appear as shown below.



**List Command selection:** click on the '+' symbol located on the side of each function menu to see the related functions and commands.

**Converter commands window:** shows the corresponding result of a command sent (the **Clear text results** key allows the user to clear this window).

**Input window:** this window allows the user to type the functions; read (command "?"), modify (command "=") or get the range (command "=?").

## 7.0 ISOCON Syntax Commands, Read, Set and Help

The ISOCON software is a tree structure with all functions grouped in the menu. By placing the pointer over a function the extended function description becomes visible.

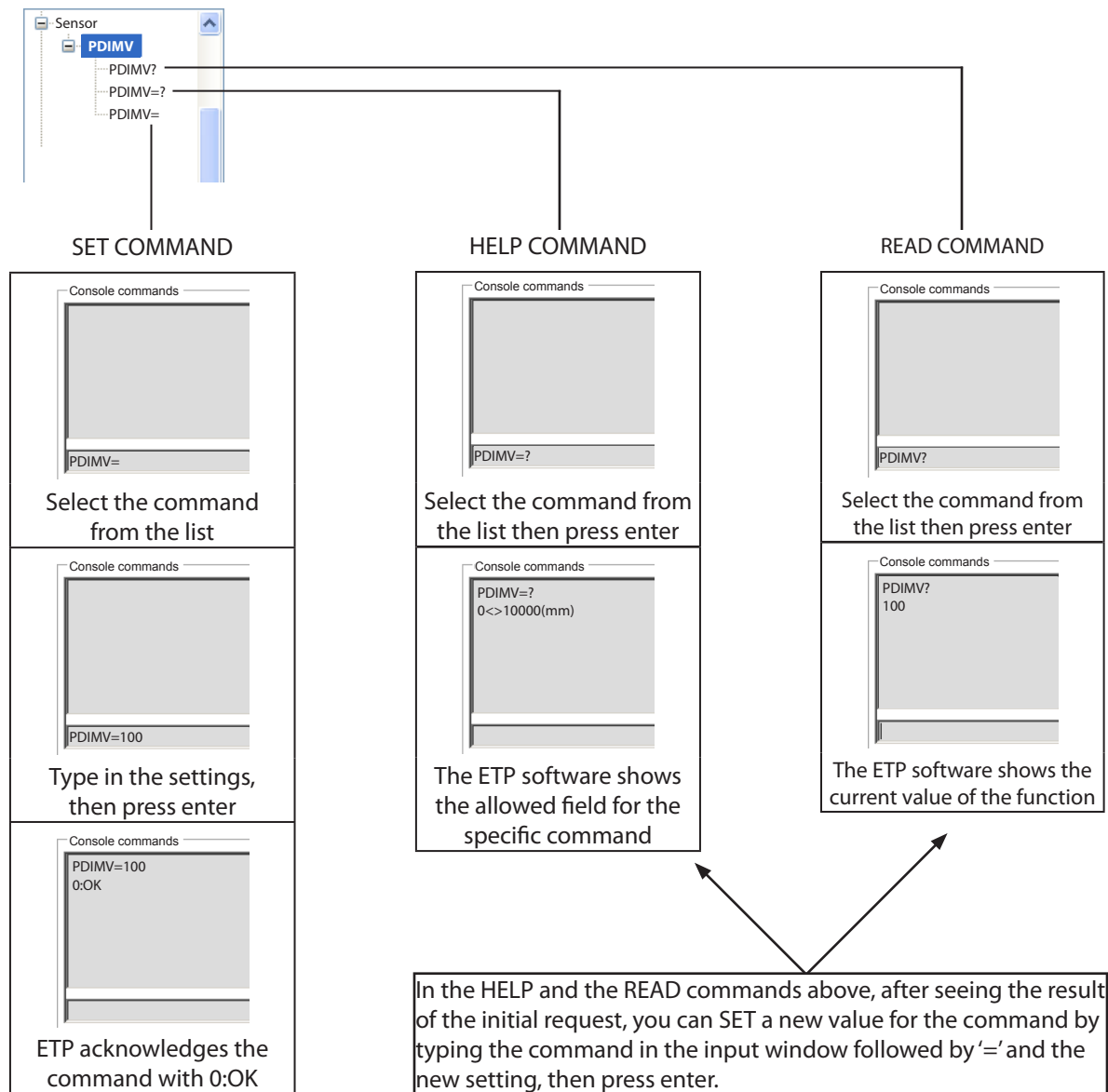
It allows three actions (commands) for each function, which are:

**[command] ?** : READ the current value of function or function status

**[command] =?** : HELP COMMAND: show the function allowed range

**[command] =** : **SET COMMAND**: set the value/status

### EXAMPLE: how to set the sensor diameter PDIMV

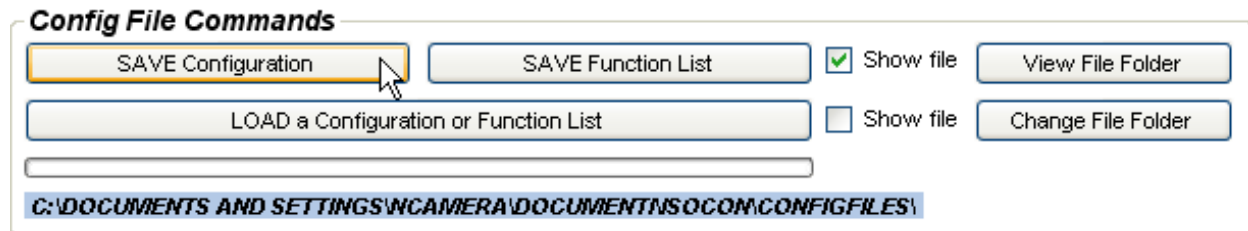


If any value/status setting is not possible the following message appears, 5:ACCESS ERR. See page 11 for the error codes list and meanings.

## 8.0 Configuration File Commands

The most appealing applications of the ISOCON Interface are:

- the capability to create a “Master configuration file” to speed up the configuration process of similar meters
- to keep data stored for future board replacement.



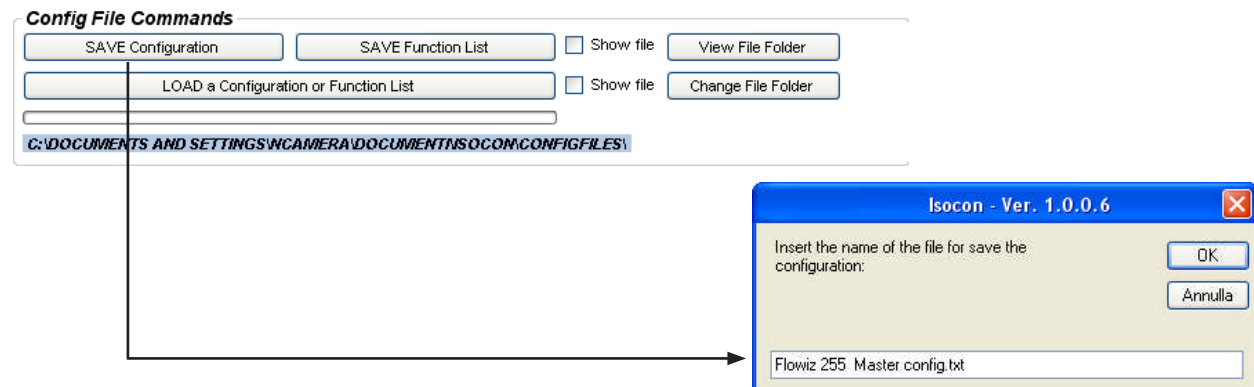
### Save configuration

To save the Configuration List (on the PC) follow the directions below.

- Flag the **Show file** option to see the file's content.
- The system suggests a file name, either use the default or rename with a more appropriate/useful name. The file is saved on the path shown on the screen highlighted in blue. As needed, you could change it by the **Change File Folder** function; you may also check the folder's content by the **View File Folder** function.
- By the **Save configuration** key of the ISOCON interface you can save its configuration in a file, flag the **Show file** option for viewing and modify the file's content.
- Edit this file by removing only the data specific to the converter, e.g. the data regarding the connected sensor, and do not change the other parameters specific to the application such as unit of measure, impulse value and alarms. At the end save the modified file.
- You can upload this file to other meters of the same application saving the time necessary to reprogram the parameters that are the same on every meter.
- Finally you can program the parameters specific to every converter using ISOCON.

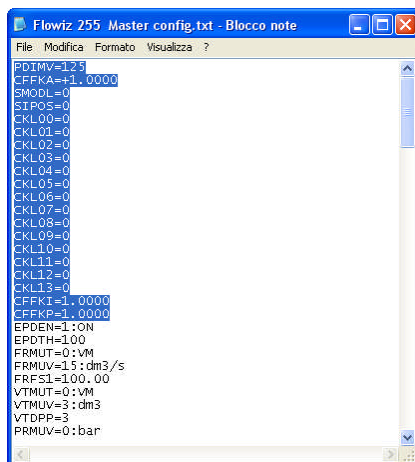
Example of **Save configuration**.

1. Download the configuration

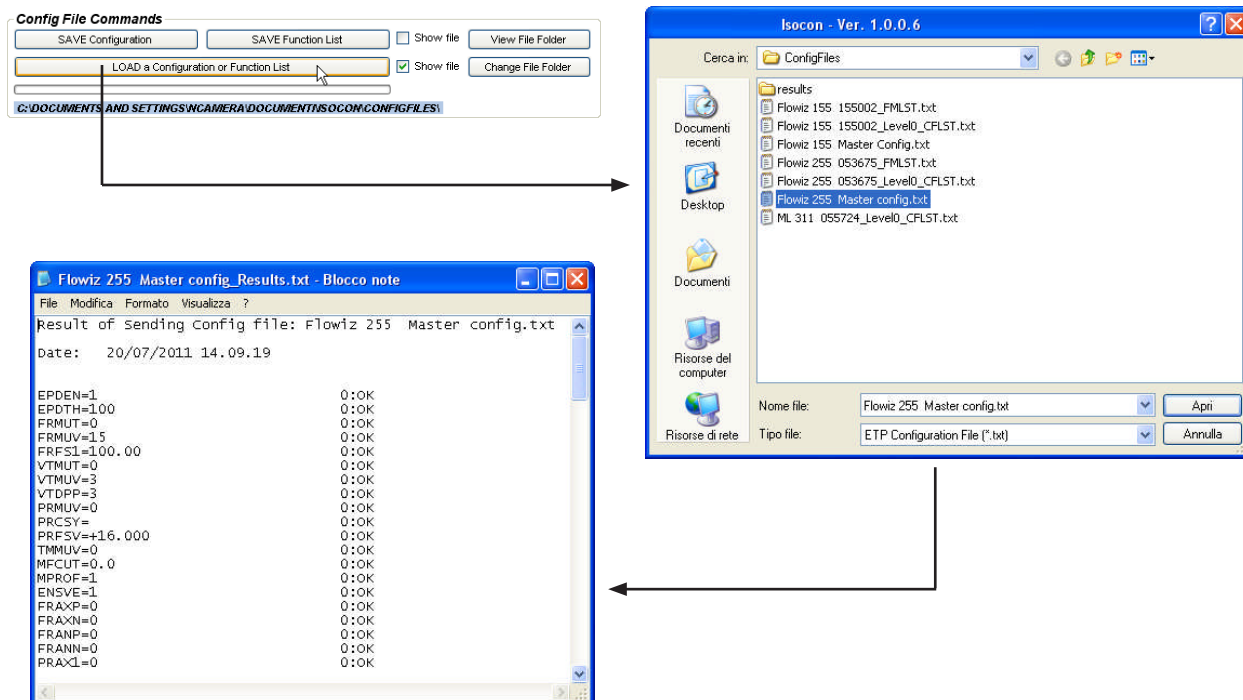


## 8.0 Configuration File Commands cont.

2. Remove the specific parameter of the converter and save the configuration file



3. Upload the “Master Configuration” and set the specific parameters of the other converters.



### Save function list

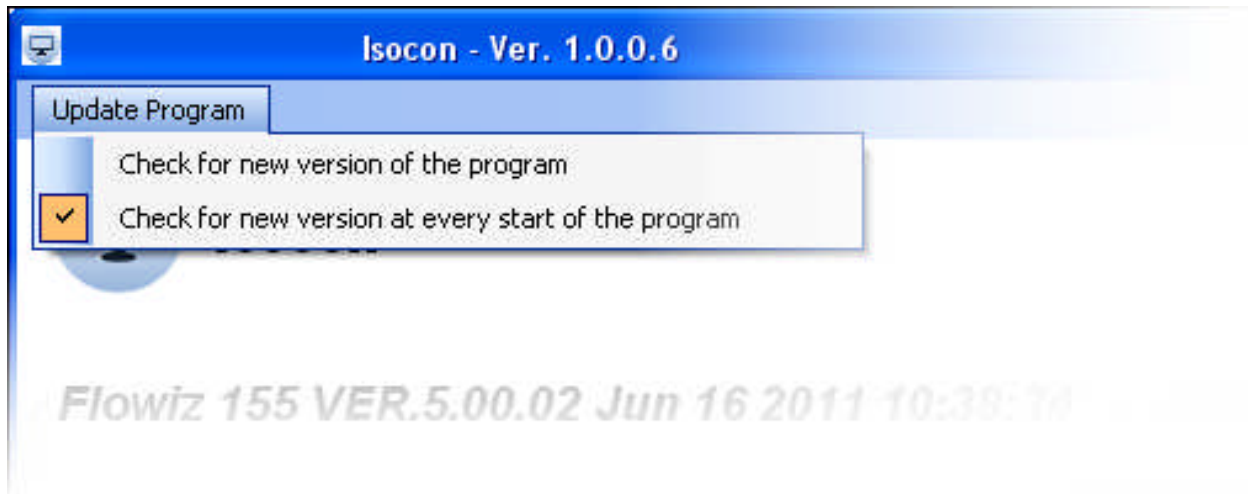
ISOCON allows the user to customize the functions visible on the display; this function will default to FACTORY/SERVICE

### SD CARD FILE COMMANDS or DATA LOGGER

See the functions description section in the converter manual.

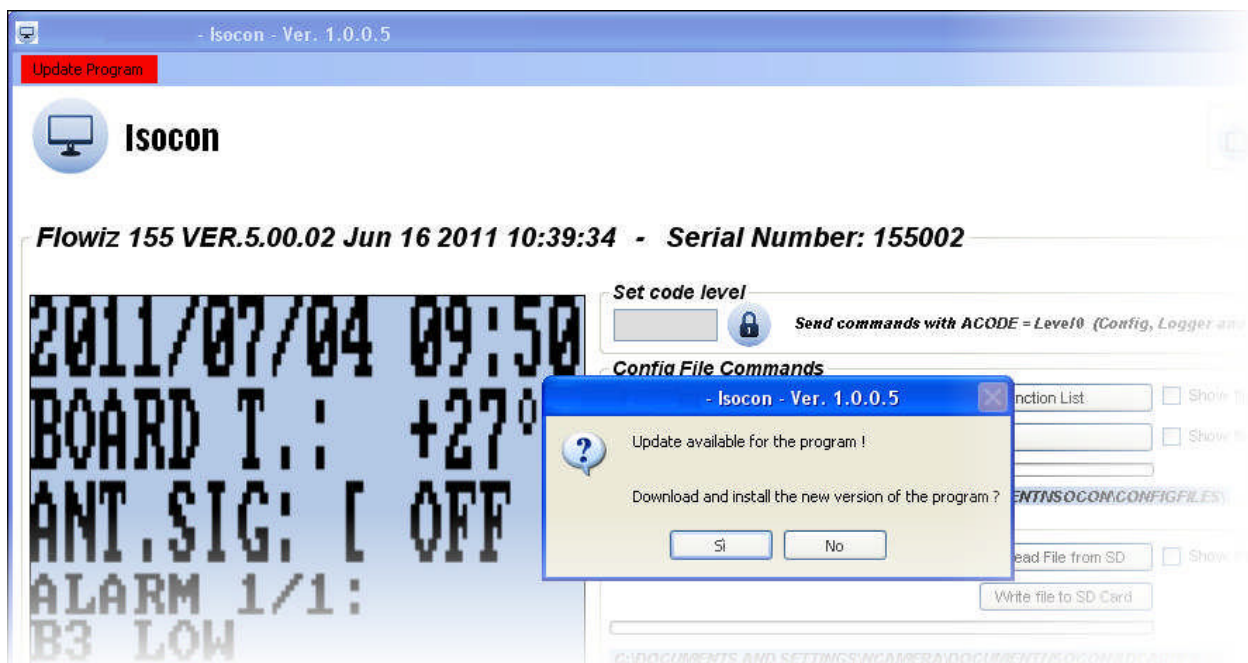
## 9.0 ISOCON Update

The ISOCON interface is able to check if new versions of its modules are available on manufacturer's web site. At the top there is a dropdown menu for updating ISOCON.



This operation can be:

- Manually started by clicking the line "Check for new version of the program" in "Update Program" section
- Automatically started at every program start by checking the option "Check for new version at every start of the program". If updates are available, click on the red lighted menu and confirm the pop-up, the requested updating process will start.



## 10.0 Error Codes

CODE	MEANING
0:OK	The command is executed correctly
1:CMD ERR	The command is not executable (not allowed / out of context)
2: PARAM ERR	The parameter is out of range / not valid
3:EXEC ERR	The command returned an error due to hardware / configuration problem
4:RANGE ADJ	The command caused an internal automatic re-adjustment of the parameters
5:ACCESS ERR	The command requires an access level greater than the current one set
6:BUFFER FULL	The input or output buffer used for the communication is full
7:FILE NOTFND	The requested file was not found on the SD memory
8:SDC ERR	The SD memory is not readable / writable / present
9:BUSY	The ETP interpreter is busy (executing another command in another task / channel)







## OTHER McCROMETER PRODUCTS INCLUDE:



Magnetic Flowmeters



Magnetic Flowmeters



Magnetic Flowmeters



Propeller Flowmeters



Remote Telemetry System



Propeller Flowmeters



Differential Pressure Flowmeters



Differential Pressure Flowmeters



Differential Pressure Flowmeters

Represented By: