

New electronic boards

You have just received a new GC, and the electronic boards seem to be very different from what you already know...

Don't worry ! We will explain this change:

- Why new electronic boards?
- Presentation of the main boards
- Compatibility software/Hardware
- Vistachrom 1.6
- For the Service
- Bonus for the « expert » users

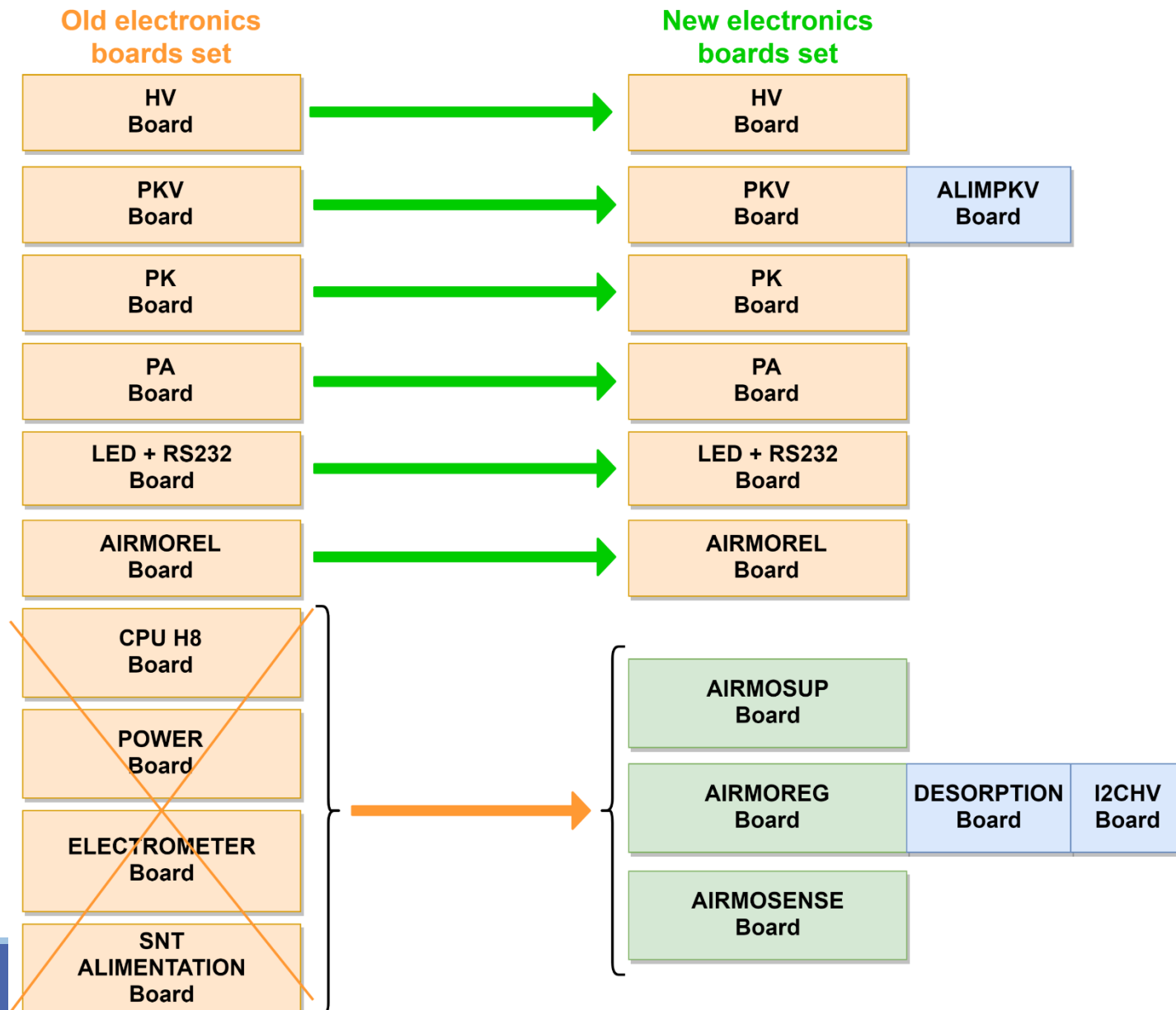
Why this change?



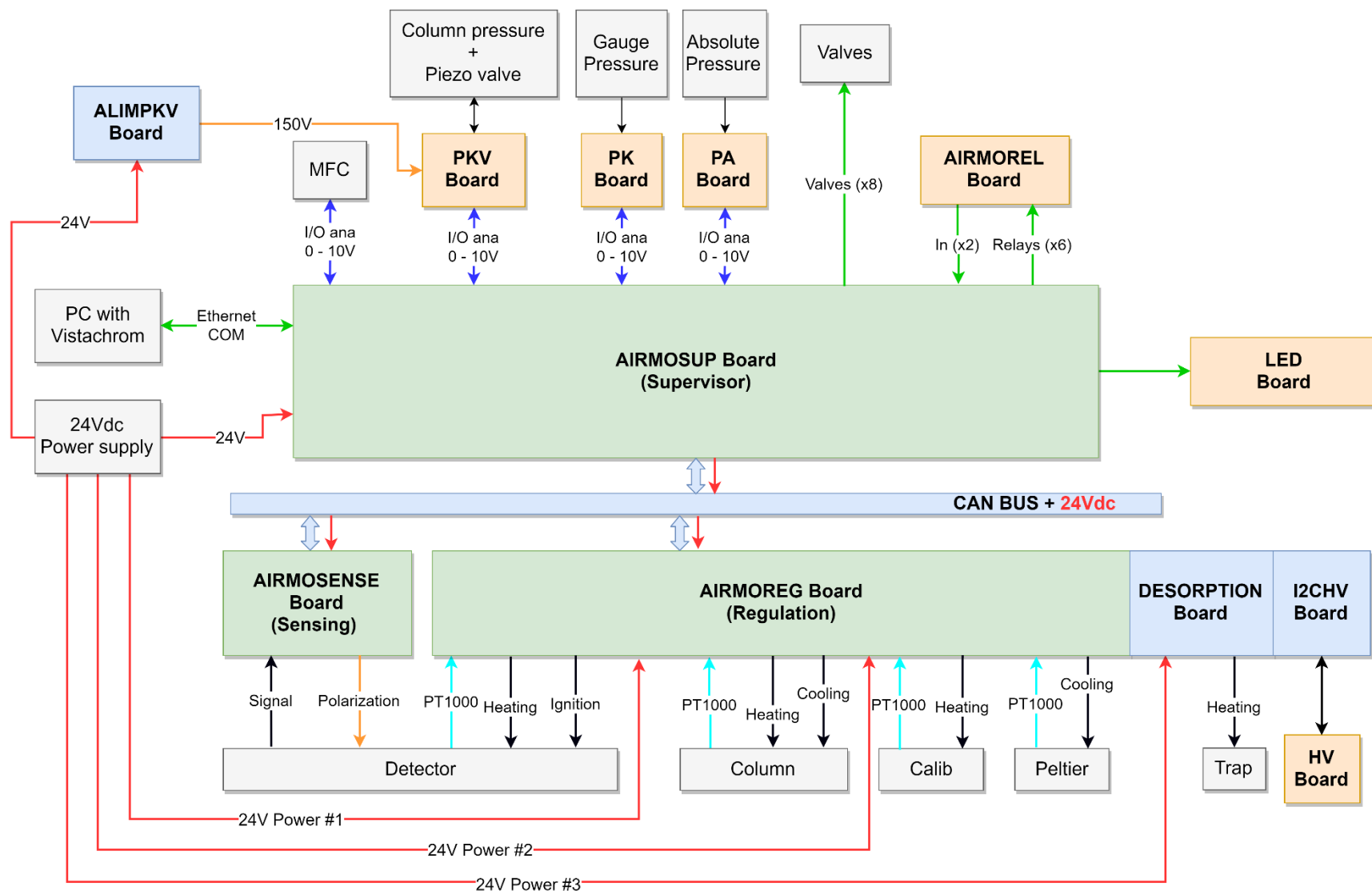
Why changing the electronic boards?

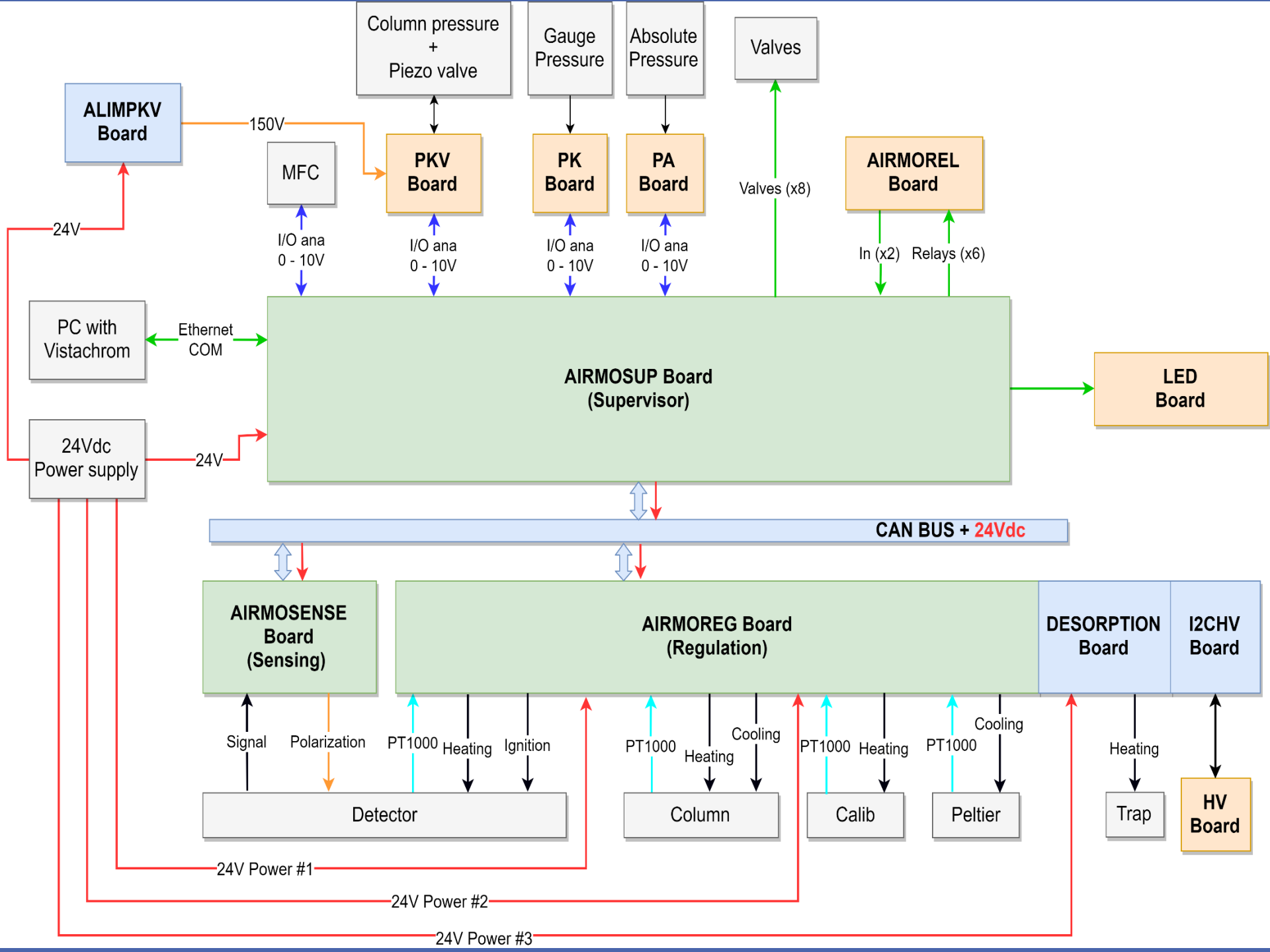
- Use our experience and knowledges we had with the previous electronic set: very good robustness and reliability
- Have the same options than before
- Add more options taking into account customer feedbacks
- Have more options to tune the parameters controlling the Chromatotec GCs
- « Preset » independently each board in Chromatotec workshop. Board « ready to connect »
- Be able to evolve the system in the future, based on new needs
- Use current technologies

Previous → New electronics



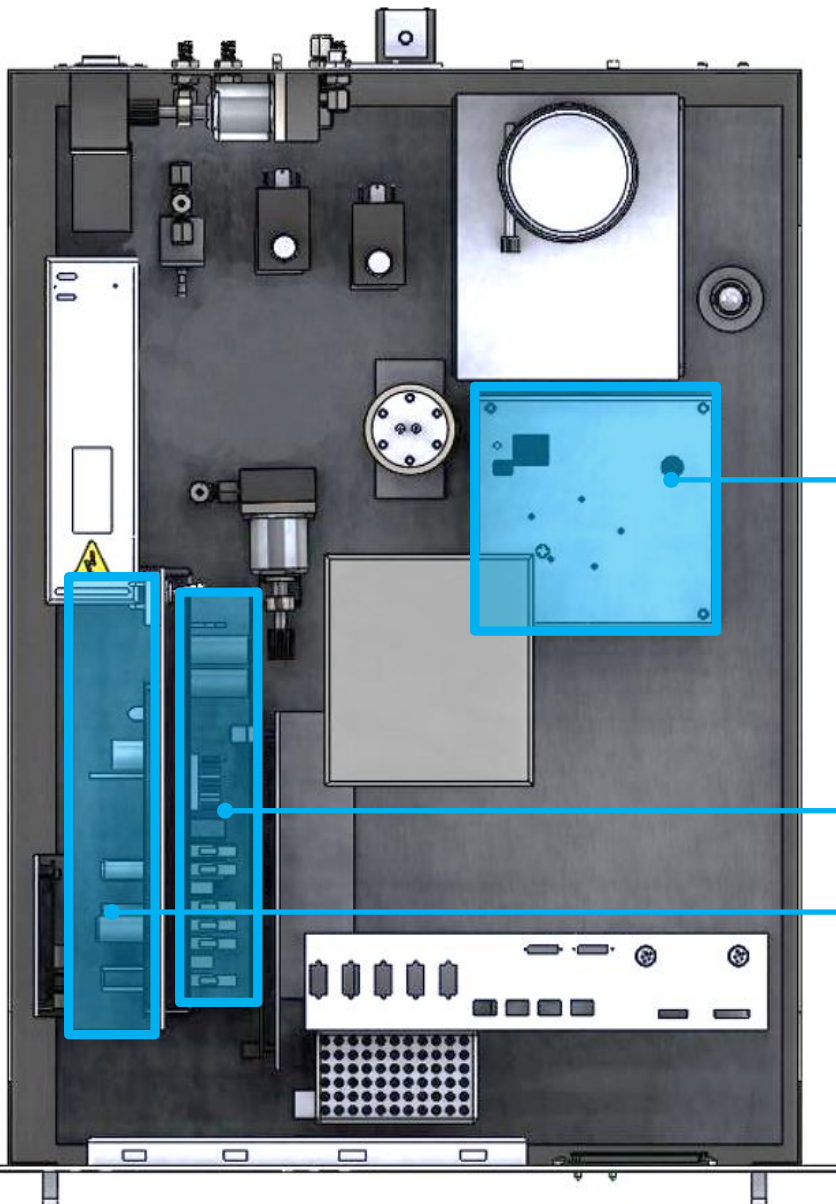
New architecture





Top View

Where the « new » boards are located?



AirmoSENSE

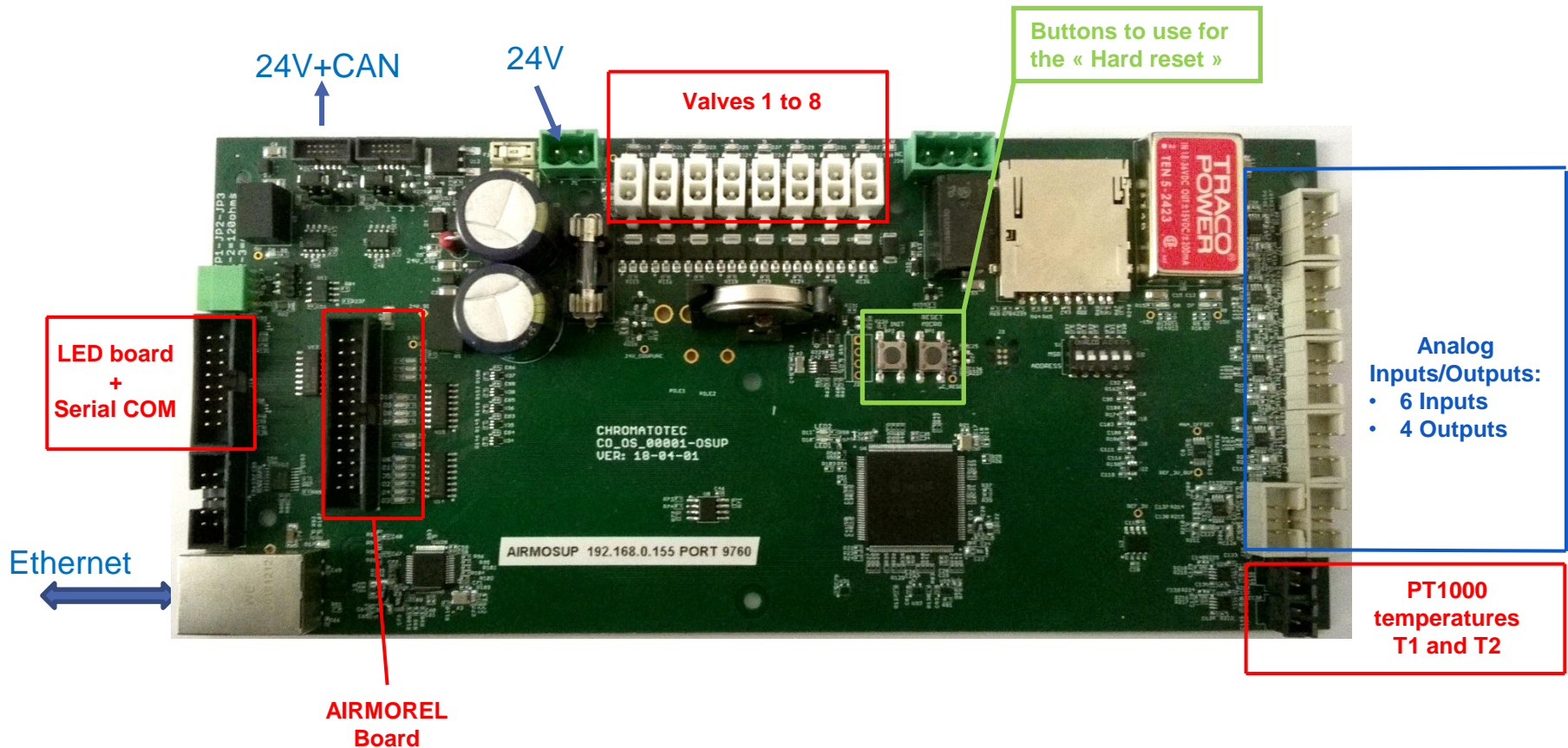
AirmoSUP

AirmoREG

AirmoSUP board

- Centralizing the data coming from other boards
- « Brain » of the electronic boards set

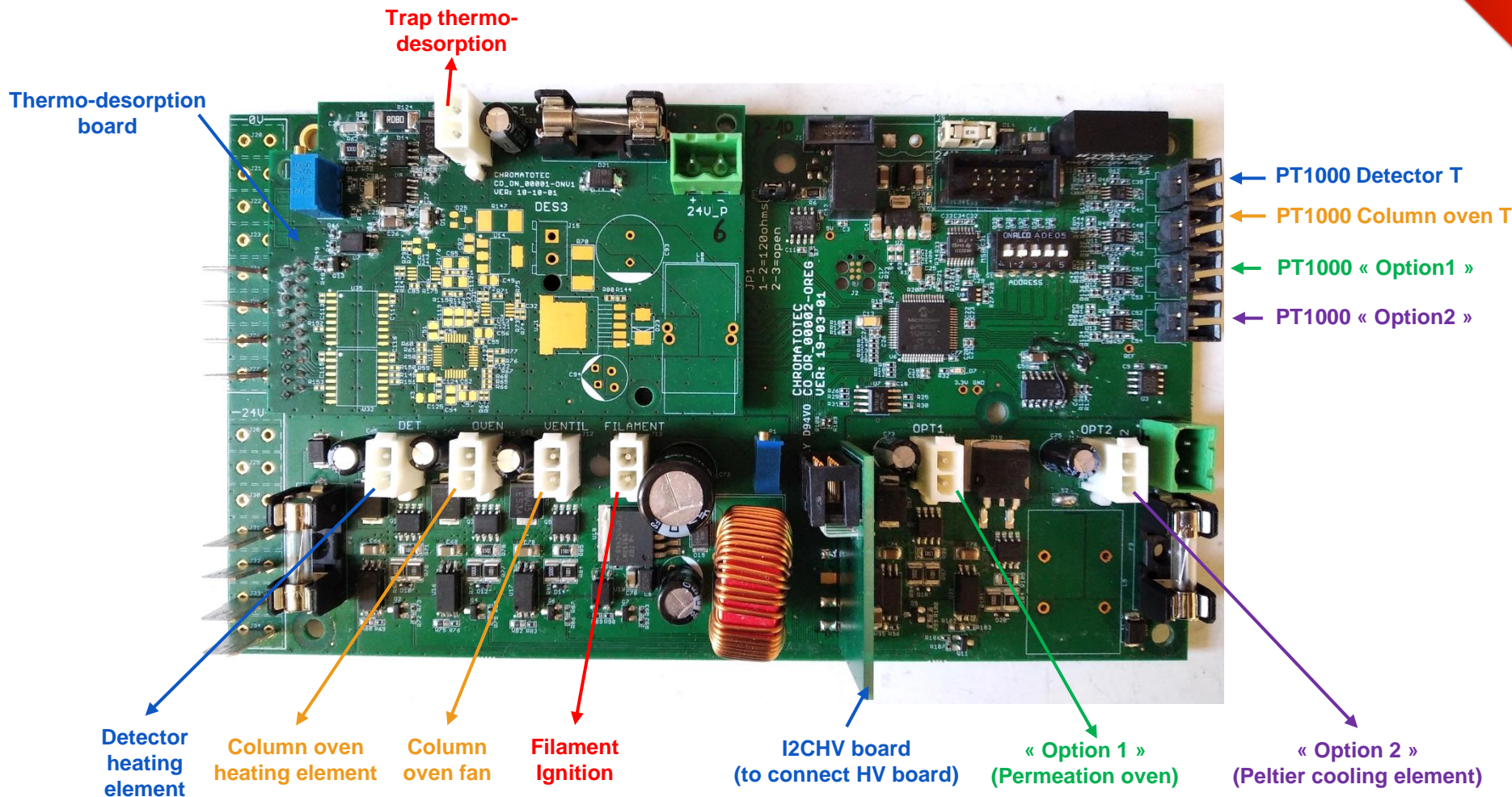
NEW



AirmoREG board

- In charge of the regulation of several parameters : T, heating elements,...

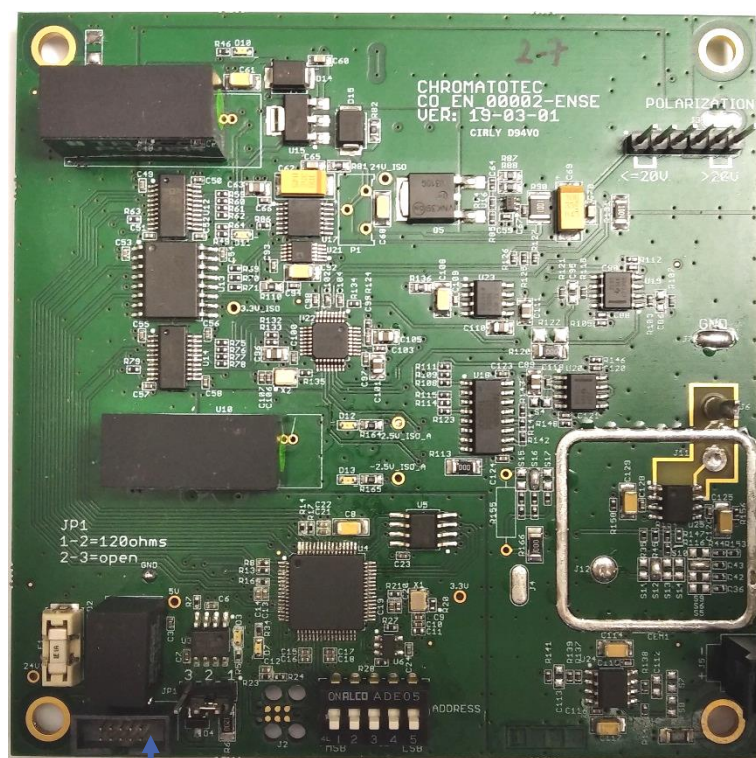
NEW



AirmoSENSE board

NEW

- Controls the voltage applied to the polarisation electrode
- Collect the signal from the detector
- Amplify the signal



24V+CAN

AirmoSENSE board will be used with different kinds of detectors :

- PID
- FID
- FPD
- Electrochemical cell, ...

➡ Don't try to exchange this board from a detector to another, the AirmoSENSE board configuration is different and specific to each detector (factory setting)

« Previous » electronic boards	
VISTACHROM	Firmware CPU
Compatible with Vistachrom 1.5.x	7.1 (and before) are compatible 8.0 (and after) are NOT compatible

« New » electronic boards			
VISTACHROM	Firmware AIRMOSUP	Firmware AIRMOREG	Firmware AIRMOSENSE
Compatible with Vistachrom 1.6.x (and after)	≥8.0	≥1.0	≥1.0

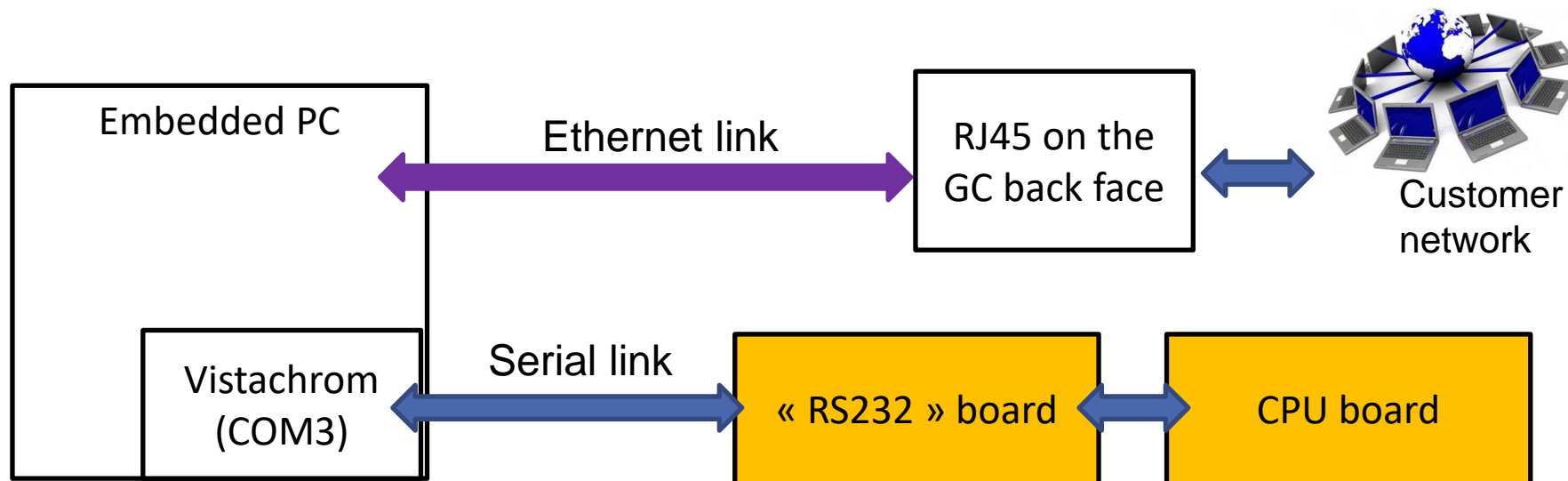
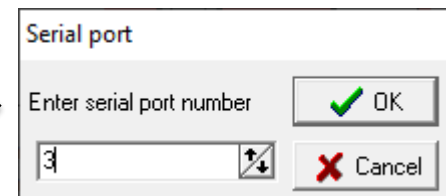
Software: Connect the GC to Vistachrom



With « previous » electronic boards:



A serial COM port was used : example COM3



Software: Connect the GC to Vistachrom



With « new » electronic boards:

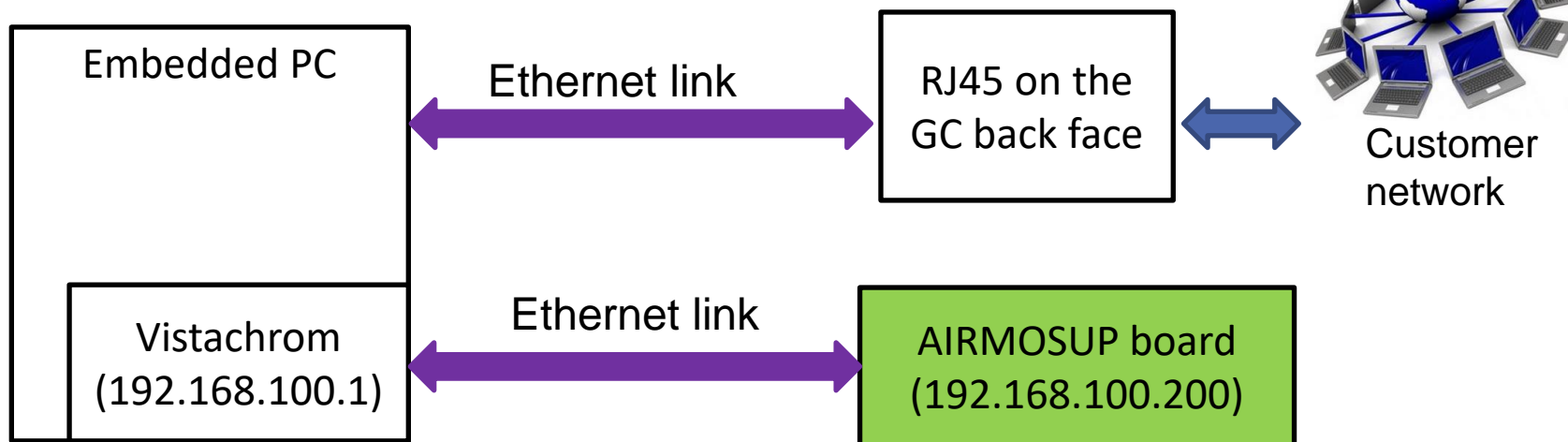
An IP address is now used



Connection parameters

Enter IP address
192.168.100.200 ☒ OK

Enter port number
9760 ☒ Cancel



Be careful not to use the same IP sub mask address for both ethernet communications

If you are in front a strange problem:

- strange values displayed
- communication problem PC/GC, ...



we advise you to start a « Soft » reset and a « Hard » reset.

There is no risk to lose important data (chromatograms, results, ...)

« **Soft** » **Reset**: (same procedure than before)

- Log out from Vistachrom
- Start Service GC software and establish the connection
- Click on the button



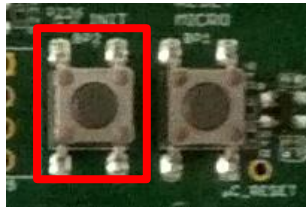
“Hard” reset

With « previous » electronic boards, we had to disconnect the CPU battery...

...Now, on « new » electronic boards,
Use these buttons on AirmoSUP board



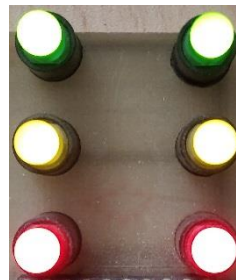
Press and hold the button
ERASE MEMORY...



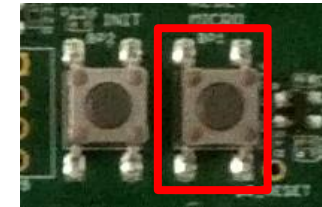
...Until...



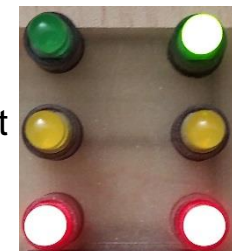
..having all the LEDS ON



Press on the button:
REBOOT GC



The GC will start, without
having a configuration





When using Vistachrom, you will not be disoriented:

- All the previous functions are still present
- The way to upload, start a sequence, stop it, ...is the same than before
- The Vistachrom access codes are the same than before

One thing to remember :

- Do not copy/paste methods from an old GC to a new GC using « new » electronic boards. These methods will not work properly. Prefer using the methods given in standard by Chromatotec

Thanks!

Have fun using your GC with new electronic boards!



Information for “expert users”

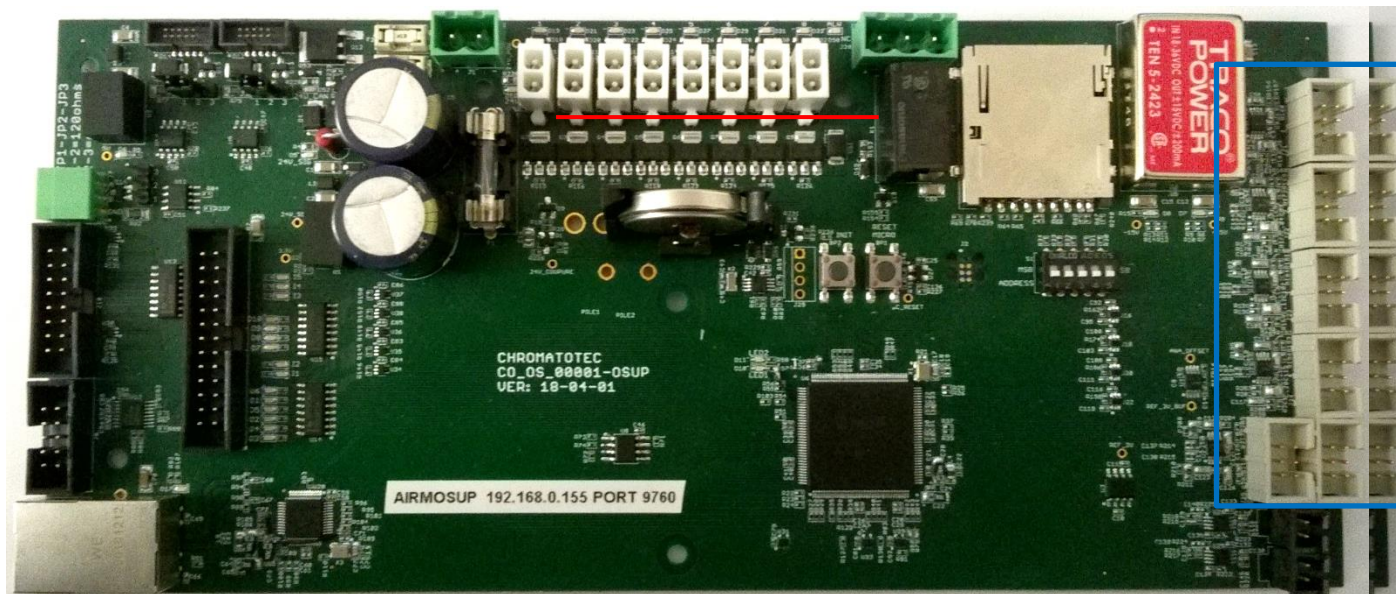


ONLY useful if:

- You are a Chromatotec distributor « advanced level »
- You already have read the Chromatotec manuals concerning :
 - The GC : easy start, QC report, easy start, ...
 - The Vistachrom software
 - Manual for « Presets »
- You already know how the Chromatotec « Preset » are performed
- You have appropriated tools!

AirmoSUP board

- Analog Inputs / Outputs



Analog
Inputs/Outputs:

- 6 Inputs
- 4 Outputs

Zoom on
next slide



AirmoSUP board



Regulator
pressure

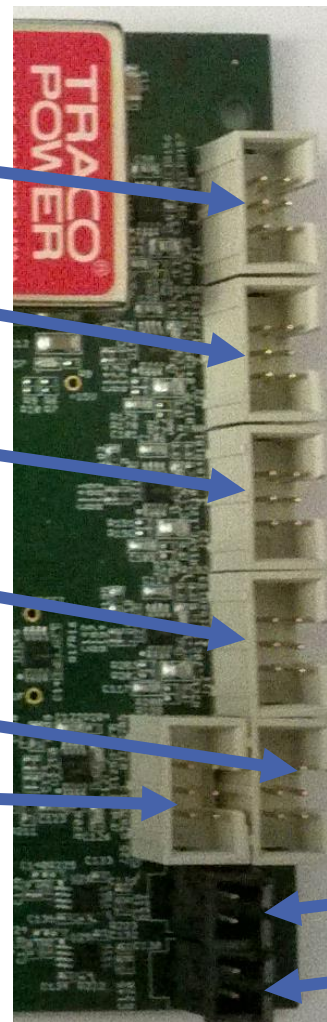
Air
pressure

H2
pressure

Ambient
pressure

Vacuum
pump

Column
pressure



Now,
no need to install
« jumpers » on the ports
« not used »

NEW

On « Service GC »:

Selected analog input

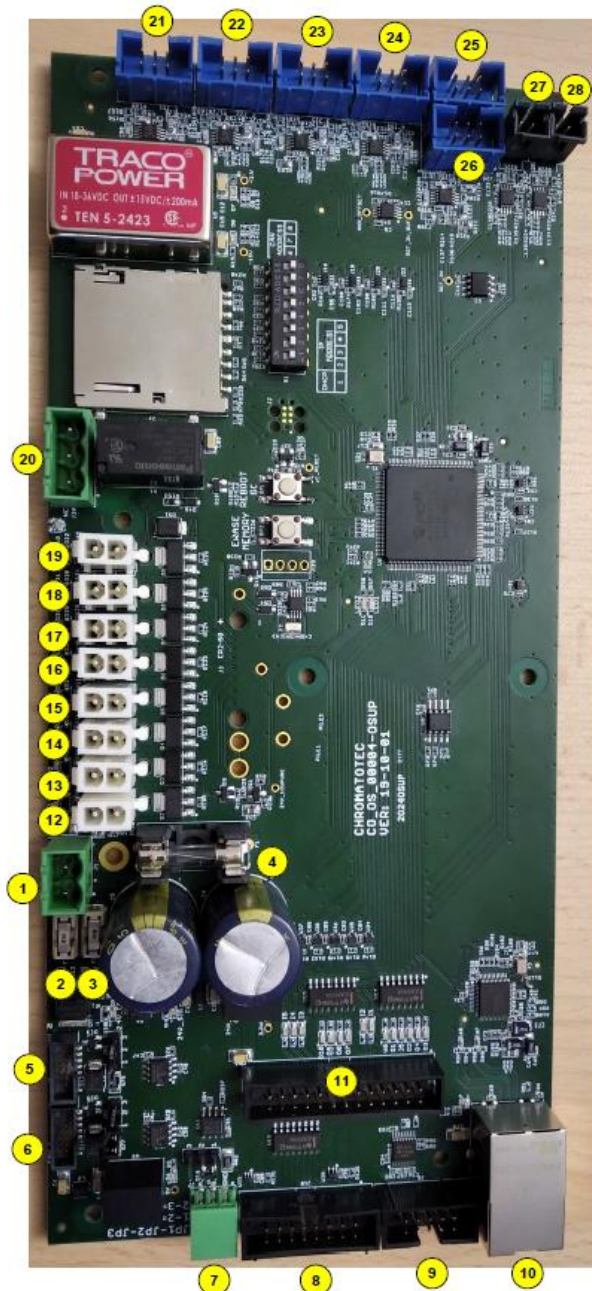
T1 Temperature
T1 Temperature
Column Pressure
Vacuum Pump
Detector H2 Pressure
Detector Air Pressure
Regulator Pressure
Ambient Pressure
Normal Flow
Large Flow
T2 Temperature

None

T2 temperature

T1 temperature

AirmoSUP board



“2” : F3: Fuse 3A for 24V supplied on J5 and J6

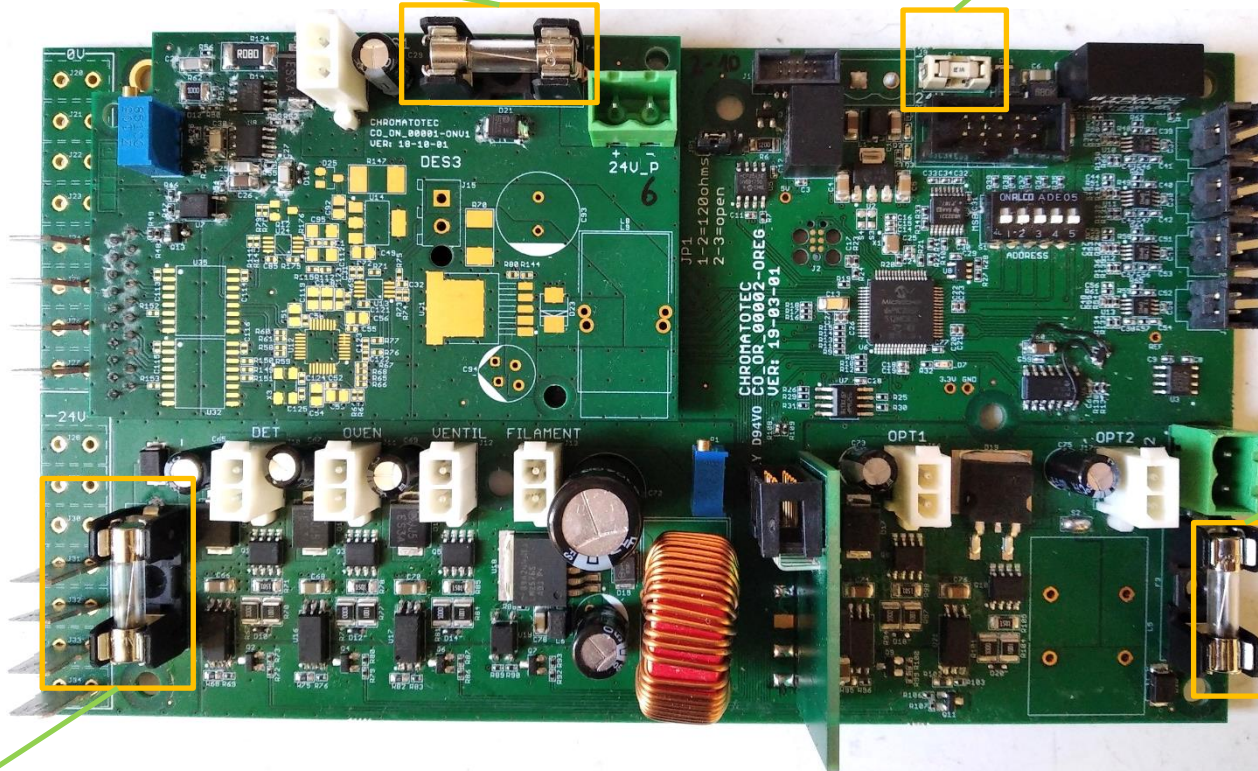
“3” : F2: Fuse 1A for local board 24V

“4” : F1: Fuse 6,3A for Valve outputs 24V from J10 to J17

AirmoREG board + Desorption board

Fuse F4 located on desorption board:
6,3 A, 5x20mm

Fuse F1:
1 A

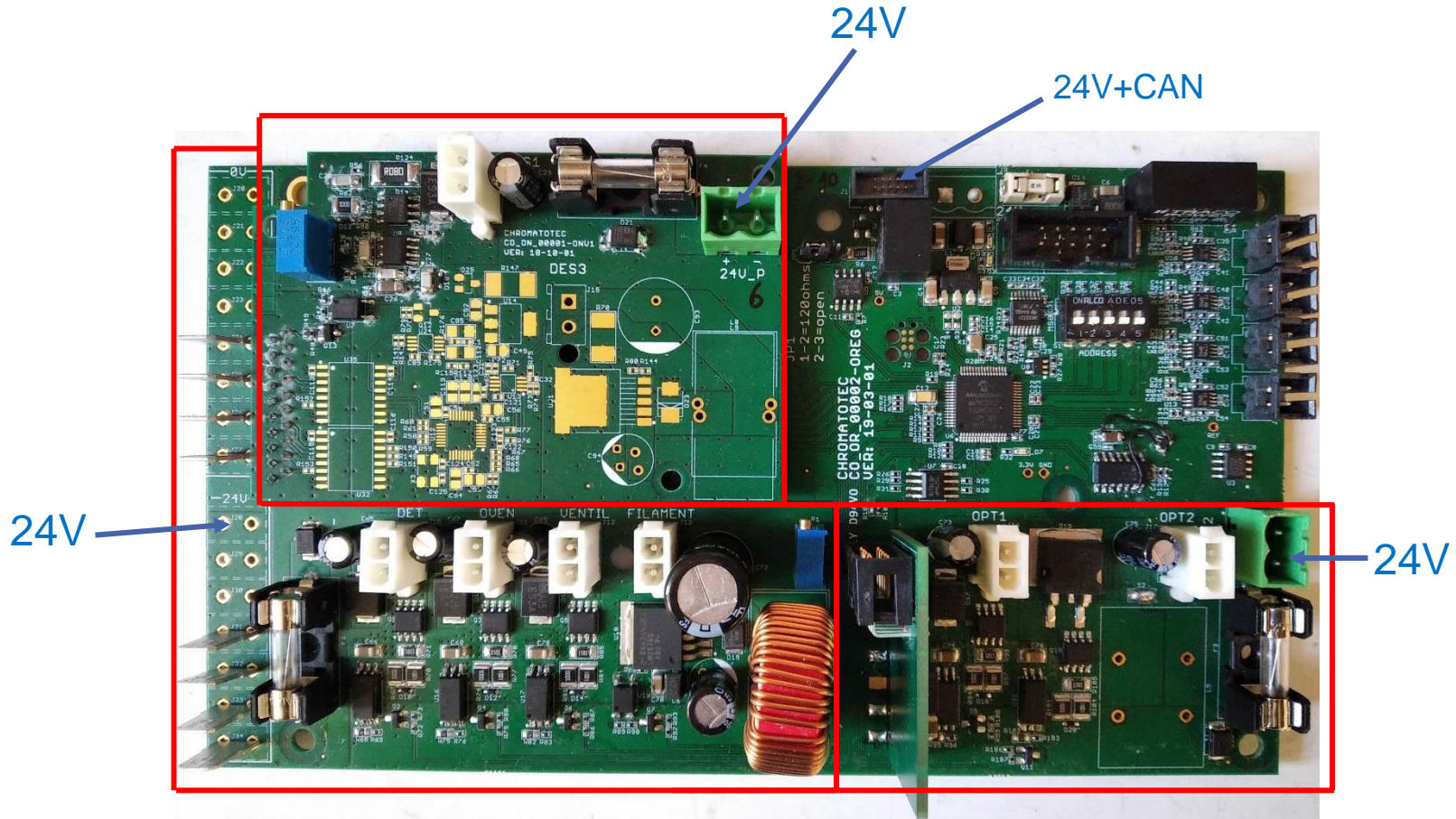


Fuse F3:
6,3 A
5x20mm

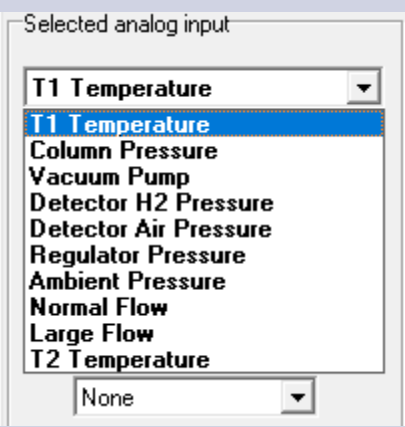
Fuse F3 only required if
OPT1 or OPT2 are used

Fuse F2:
6,3 A
5x20mm

AirmoREG board



“Presets” with Service GC

Parameters	Electronic board	Software to use	Where is this preset stored?	Who ?
	AIRMOSUP	Service GC	In the folder « Config » of the GC	<ul style="list-style-type: none"> • Chromatotec during CQ • Distributors

The « Presets » of all these parameters have to be done exactly on the same way than before, with « previous » electronics.

“Presets”: what is new?

Parameter	Electronic board	Software used	Where is this preset stored?	Who?
Oven temperature	AIRMOREG	Special Chromatotec software	Internal memory of AIRMOREG	Only Chromatotec
Detector temperature				
Calibration temperature (« Option 1 »)				
Peltier temperature (« Option 2 »)				
Polarization voltage	AIRMOSENSE		Internal memory of AIRMOSENSE	



Great interest : one AIRMOREG or AIRMOSENSE board can be ordered (as a spare part) by a customer, and connected directly in his GC. No setting to do on site!