

BIOS pCO: update 3.88 dated 09/02/2009

This BIOS is released as 2 different files:

- BIOS_PCO2_388.bin: for pCO2;
Size: 512 KB;
- BIOS_PCO3_fake_pco2_388.bin: for pCO3;
Size: 512 KB. Requires WinLoad 3.36 or higher.

The pCO3 file can only be loaded on the boards that carry one of the following codes:

- PCO3***AS*, PCO3***AM*, PCO3***AL*, PCO3***AZ*;
- PCO3***BS*, PCO3***BM*, PCO3***BL*, PCO3***BZ*.

Warning: the pCO3 file is released to manage the transition from pCO2 to pCO3. This BIOS version **emulates the operation of pCO2 on pCO3**. To be precise, the changes with respect to the normal operation of pCO3 are as follows:

- The PCO_TYPE variable, which is used by the application software to identify the pCO model, takes value 2.
Note: WinLoad and SmartKey still identify the pCO as pCO3.
- The BLK engine has been slowed down so that the time for a program cycle is similar to that of pCO2 for the same application program.
- The slew rate of analogue outputs Y5 and Y6 has been limited to be similar to that of pCO2.
- The delay between a T memory writing request and its execution, delay which does not exist on pCO2, has been eliminated.
- All the functions that are available on pCO3 but not on pCO2 (e.g., additional T memory, FieldBus Serial Port, etc.) are **not** supported by this BIOS.

In addition to the modifications which have been introduced to manage the transition between pCO2 and pCO3, the following differences exist between BIOS 3.84 (date: 11/04/2006) and BIOS 3.88:

- Improved communication of the pCO2 and pCO3 with WinLoad;
- Improvements in the communication between pCO2 and built-in terminal;
- Off the LED blink continuous in the pCO if WinLoad not connected (eg when the physical connection is lost after setting WinLoad protocol in one of the serial of pCO);
- During the data historicized download, a communication error between the pCO and PC could interfere with the normal functioning of the application due to the excessive duration of the research data in flash of pCO. The problem was solved by introducing a maximum time of 5 seconds for the search: if this time is exceeded the historic download is interrupted and WinLoad reports an error. WinLoad makes visible the error to the user since version 3.38;
- Fixed bug for which the mask was not sent correctly to the terminals pGD1 if the last line was a field with a partially assbool coming out from the screen;
- Improved management of non-volatile variables (memory T) sent by pLAN;
- Modbus slave: correction the timer of silence timeout control. Now the silence timeout is controlled every 2 ms, while before was every 100 ms;
- EasyFace: the mask stored with the command store_mask is now cleared when you change language;
- EasyFace: Fixed a problem with the command "compare" ;
- Change the atoms Raout / Riout / Rdout for all pCO: in all previous BIOS was not checked flag to update before preparing the shipment and especially to match the value in the

database of the BIOS as that of application. In that way if a write command came after the atom Ra/i/dIN and first atom Ra/i/dout of the variable that the master wanted to write the command was ignored because the value was overwritten with the implementation of atom Ra/i/dout.