

FREQUENCY – CURRENT PROGRAMMABLE CONVERTER

CAOM C.F.CP.

C.F.C.P. are digital devices consisted of a hardware/ software assembly designed to work in automation process systems. They can be connected into a measurement and control system to measure and display a frequency from the process. The input signal must be an alternative tension between 0.5 and 100 V and frequency between 0.01 and 9999 Hz.

The device has an input for the signal with measured frequency, another one for 220 V c.a. supply power, an output for unified current (4-20 mA) proportional to the value of the measured frequency and a pair of exits associated to the two alarms. In order to connect the inputs and the outputs, the device must be off; if it is connected to power, it must be switched off.

On the front panel, four keys are displayed (VALID EXIT, SUS, JOS) which allow the access of the configuration menu of the device and the modification of the control parameters. The “SUS: and “JOS” tasks allow the movement inside the menu, the selection of a certain digit to modify the value, respectively the value increment and decrement for the selected digit. The “VALID” key allows the selection of an option from menu, the selection of the digit that must be modified, respectively the taken over of the value of the modified parameter. The “EXIT” key allows the exit form menu and submenus also. The device has another display and three control LEDs, one of them indicates the supply voltage in (the green light) and the other two (red lights) signalize the conditions for alarms activation. The display of the measured frequency I son 4 digits, using cells with 7 segments (LCD), the font size is 12.7 x 7 mm.

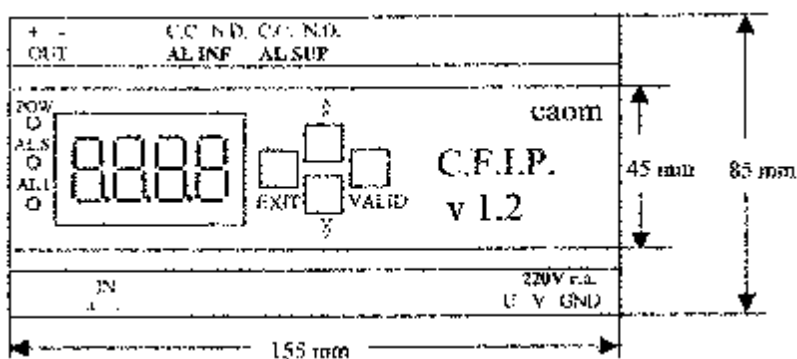
The device allows programming of two alarm limits for each measurement range and every limit has attached a programmable hysteresis. Also, the alarm events have attached an open relay-type contact. The devices can have, optionally, a RS485 interface for network communication, using a personal protocol entitled gp MICRONET. A frequency- monitoring soft can be used, allowing the connection into RS485 network for 30 C.F.I.P. devices.

The interface with the user is achieved through a number of 12 inputs in the parameters configuration menu. The programming of the device is done by accessing the configuration menu (by simultaneous pressing of the three inferior keys: EXIT, JOS and VALID). A menu will be displayed and the access can be done anytime with the two keys: SUS and JOS. No parameter can be changed if the correct password is not inserted. Afterward, you can proceed to change the parameters value. You can scroll over the menu until the option to be changes is displayed. You can select it by pressing VALID key. At this moment, the prior value of the parameter will by displayed. The new value will be introduced, and then you can abort the menu by pressing tow-times on the EXIT key. At that moment, the device will be reset starting the operation with the new parameters inserted and saved in an EEPROM memory.

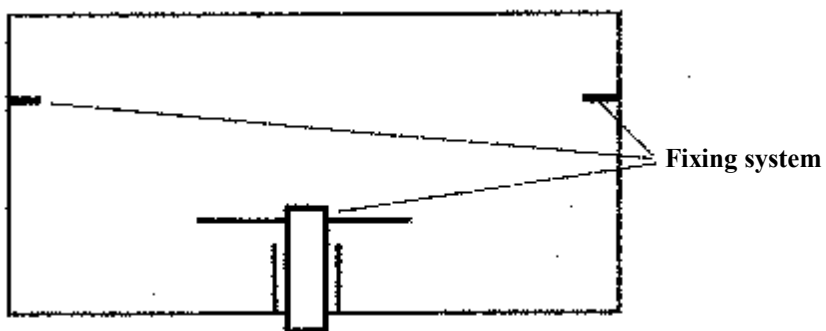
When turned on, the device will operate using the EEPROM parameters. Therefore it is better to check the correctness of the parameters initial values and to adjust their value if necessary.



Product name	Frequency- Current Programmable Converter (C.F.I.P)
Supply Voltage	220 V c.a. \pm 10%
Input:	Alternative voltage 0.5 -100 V, frequency between 0.01- 9999 Hz
Input parameters filtration	Software filter
Keyboard	4 keys: VALID, EXIT, SUS, JOS
Display	4 cells with 7 LCD segments, font size 12.7 x 7 mm. These cells can display the input value and the programming parameters
Display resolution for input parameter	Between 0.001- 1 Hz, according to decimal point position
Front panel signalization	1 green LED- to indicate the supply voltage 2 red LEDs – to indicate the alarms
Precision of input signal measurement	0.1 % from the measurement range
Programmable parameters	<ol style="list-style-type: none"> 1. PS - password 2. FL – frequency inferior limit 3. FH – frequency superior limit 4. AL- minimum alarm value 5. AH- maximum alarm value 6. oL - minimum value to obtain 4 mA 7. oH – maximum value to obtain 20 mA 8. Hi- hysteresis value for relays 9. PL – decimal point position 10. cF- filtration constant 11. CL – output calibration for 4 mA 12. CH- calibration output for 20 mA
Alarm limitss	Through menus, two alarm limits can be set for the measurement range. These limits, AL and AH, have a pair of relays associated of each of them, R1 and R2, and are defined as inferior and superior alarm.
Relays output	The device can have 2 relays, the contact are normal opened, 0.5 / 150 V c.a.
Output	Output in current 4...20 mA, proportional to the programmable range, galvanically isolated. The output has a 24 V cc internal source, limited to 25 mA, for its utilization being necessary just connection. Optionally, RS 485 network.
Output precision	0.3% from the measurement range
Operating temperature	0-50 °C
Humidity	Max. 85%, no condense, non chemical, non mechanical –active and non –explosive environment
Box dimensions (L x W x H)	155 x 85 x 58 mm
Fixing system	On DIN EN 50 022 –type Bar
Mechanical protection	IP20 for carcass and IP00 for terminals
Weight	0.5 kg
Option	RS485 network with gpMICRONET protocol or other protocol, at option



Front view



Rear view

Side view

