

### DESCRIPTION:

Remote expansion module for Agronic 7000 having two different types according to its inputs:

Expansion module (type 1): with 5 outlets relays and 2 digital inputs.

Expansion module with sensors (type 3): with 5 outlets relays, 2 digital inputs and 2 analog inputs (it can be 4 if the digital inputs are invalidated).

The communication between the Agronic 7000 and the expansion module is done by means of 24 Vac two-sectioned cables lines, which allows the connection with several remote electrovalves only with a single two-sectioned cable.

Both the digital outlets and inputs can be used for any function of the Agronic 7000.

The Agronic 7000 can have a maximum of 16 expansion modules (type 1 and 3) connected. Not more than 4 for line.



### TECHNICAL CHARACTERISTICS:

Power supply		
Power source		24 Vac $\pm$ 25%
Energy consumption		Average consumption: 1.5 VA
Input fuse		1.6 A, F type, 250 V (fast)

Outputs		
Number		5
Type		24 Vac relay
Limit		40 Vac / 30Vdc, 1 Amp

Inputs		
Digital	Number	2
	Type	Optolinked
Analog (only type 3)	Number	2 (it can be 4 if the digital inputs are invalidated)
	Type	4-20 mA

Environment	
Temperature	0° C to 45° C
Humidity	< 85%
Height	2000 m.
Pollution	Grade II

Weight (approximate)	
Weight	850 grs.

### DECLARATION OF CONFORMITY

It follows the 89/336/CEE Guidelines for the Electromagnetic compatibility and the 73/23/CEE Guidelines of Low Tension for the Fulfillment of the Product Security. The fulfillment of the following specifications was demonstrated as indicated in the Official Diary of the European Communities.



**Symbols which may appear on the product**

Double insulation

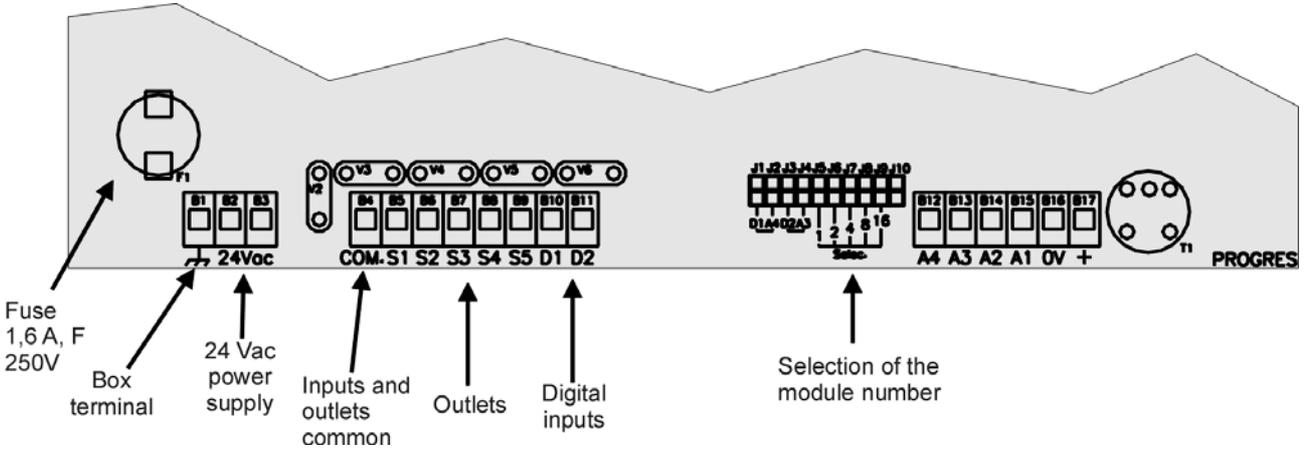


Terminal

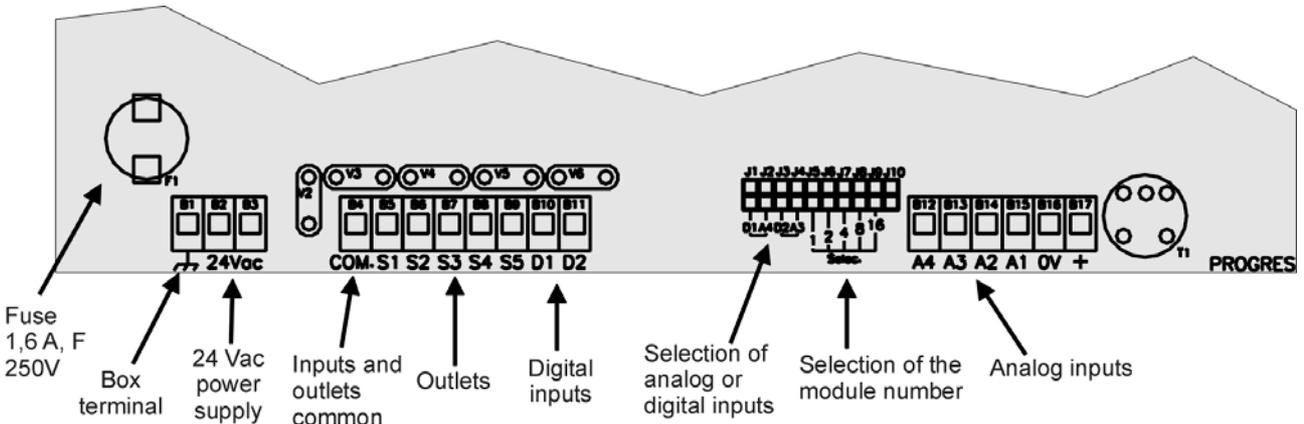


**INSTALLATION:**

Module type 1:



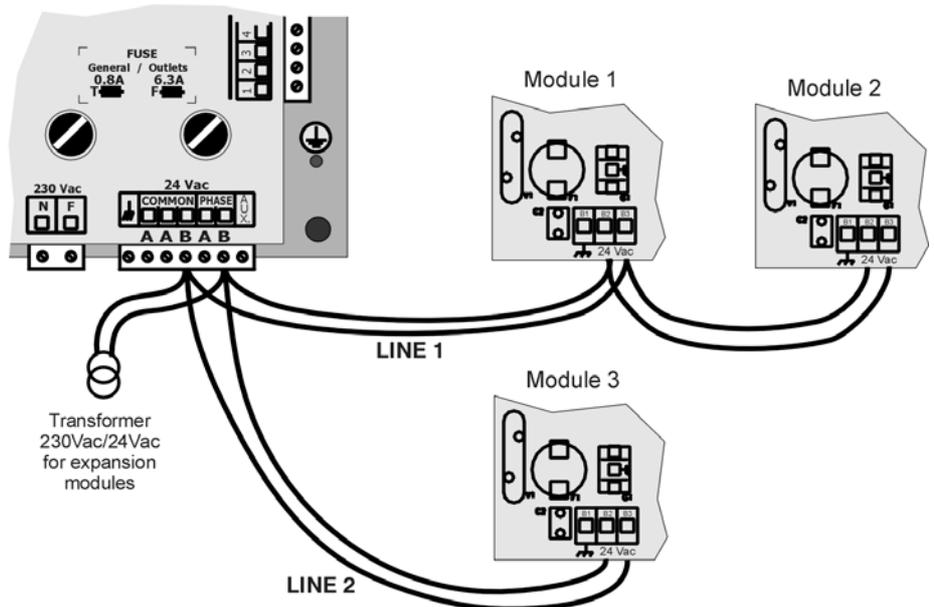
Module type 3:



**Connection of the expansion modules with the Agrónic 7000:**

The expansion modules are connected to the Agrónic 7000 with the 24 Vac power supply cables.

The best connection is in different lines (star-shaped connection), as the connection between Module 1 and Module 3. Although they can also be connected in one line (like in bus), as Module 1 and Module 2, whenever the tension at module 2 is not inferior to 18 Vac (24 Vac - 25%). In both situations not more than 4 modules can be connected in the same line.



For the distance from the module to the Agrónic 7000, there is a similar limitation. The module power supply cannot be inferior to 18 Vac. Then, It have to taken into account the maximum load to the module (including electrovalves) and the cable power supply section.

The two-wire cable used in this connection should have a low capacity, lower than **80 pF/m**.

If the voltage is, at any moment, inferior to 18 Vac, the communication with the Agrónic 7000 will be stopped. If for this or any other reason the Agrónic 7000 and the module have no communication for more than 2 minutes, the red led placed on the module card, it would stop being intermittent and would remain lit all the time. When this happens, all the module outlets will be disconnected automatically.

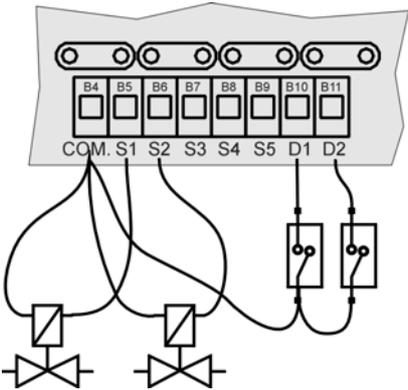
It is also necessary to connect the box terminals to a ground pick to work as a terminal earth.

**Input and outlet connection:**

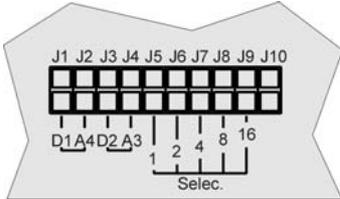
The outlets will be connected between the common (COM) and the corresponding outlets (S1, S2, S3, S4 or S5). The outlets will be automatically disconnected when the Agrónic will have no communication with the module beyond two minutes.

The digital inputs will be connected between the common (COM) and the corresponding terminal (D1 or D2). These inputs are optolinked.

In the module type 3 there are 2 analog inputs, it can be expandable to 4 (if the 2 digital inputs are invalidated). To configure the analog inputs number it is used the jumpers J1, J2, J3, J4 connected like this:

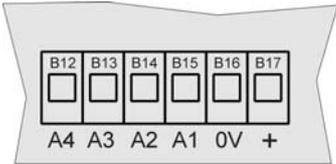


J1	J2	J3	J4	D1	D2	A3	A4
X	-	X	-	√	√	O	O
X	-	-	X	√	O	√	O
-	X	X	-	O	√	O	√
-	X	-	X	O	O	√	√



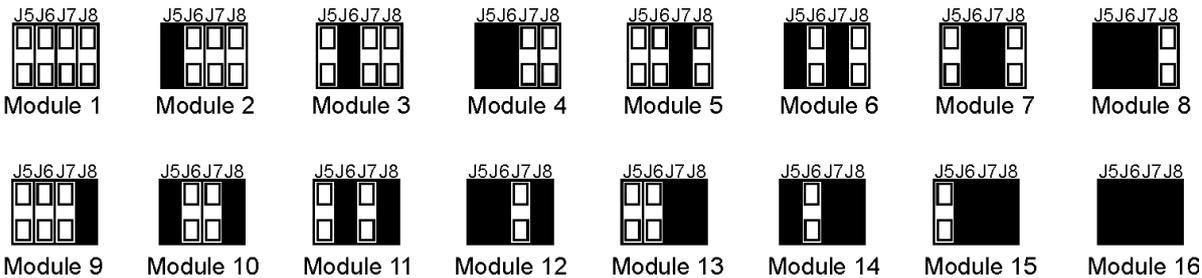
In the table, D1 and D2 are digital inputs, A3 and A4 are analog inputs and marking with “X” the placed jumpers and with “√” the activated inputs and “O” the inactivated inputs.

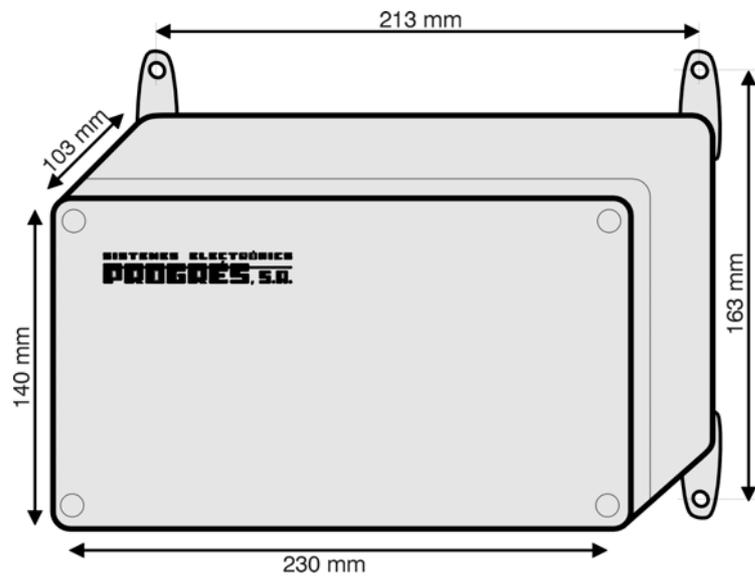
The sensors connected to module have to be the type of 4-20 mA. The sensor power supply will be connected to the terminals “+” and “0V”, the sensor outlet will be connected to one of the inputs (from “A1” to “A4”). The sensor power supply is 11 Vdc.



**Module number:**

Every one of the expansion modules connected to an Agrónic 7000 must have assigned a “module number”. This number is indicated by means of selection bridges that there are on the module card (from J5 to J9). To the Agrónic 7000, this number is indicated in “Parameters-Modules”.



**DIMENSIONS:****Sistemes Electrònics Progrés, S.A.**

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