

AGRONIC 4000 EXPANSION MODULE FOR 12 Vdc LONG DISTANCE SOLENOIDS

DESCRIPTION:

Remote expansion module for Agrónic 4000:

Expansion module with sensors: with 5 outlets relays, 2 digital inputs and 2 analog inputs

The communication between the Agrónic 4000 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.

Either inputs and outlets module are used as any function of the Agrónic 4000.

The Agrónic can have a maximum of 16 expansion modules 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		12 Vdc relay
Limit		40 Vac / 30 Vdc, 1 Amp

Inputs		
Digitals	Number	2
	Type	Optolinked
Analog	Number	2
	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.



Symbol which may appear on the product

Double insulation

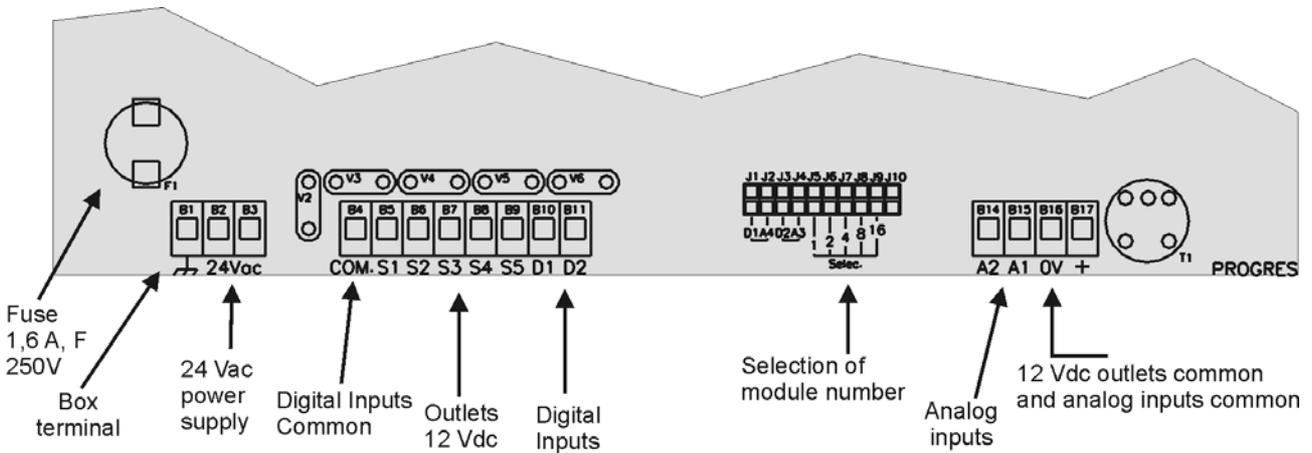


Box Terminal



INSTALLATION:

Expansion module:

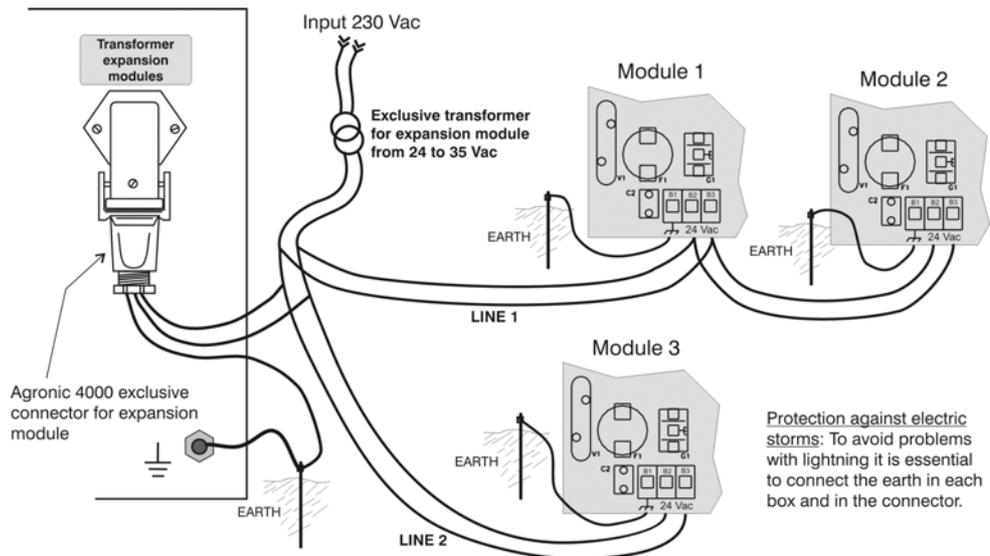


Connection of the expansion modules with the Agrónic:

The expansion modules are connected to the Agrónic 4000 through the connector provided at the right of the unit. The connector has 24 Vac supplied from the transformer for supply the modules modem. Connect the 24 Vac cables to the connector points 1 and 2, plus the earth.

For connect the different modules, it can be used the same transformer to supply the 24 Vac and make the two-sectioned lines estimated (maximum 4 per each line) according to the field. The connector that give 24 Vac and the transformer of 24 Vac for the expansion modules are not supplying any other device. In that case, it can be avoided any possible communication interference.

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 4000, 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 4000 will be stopped. If for this or any other reason the Agrónic 4000 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.

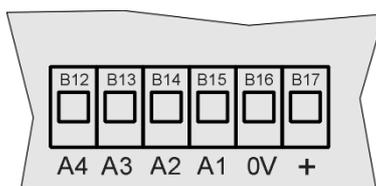
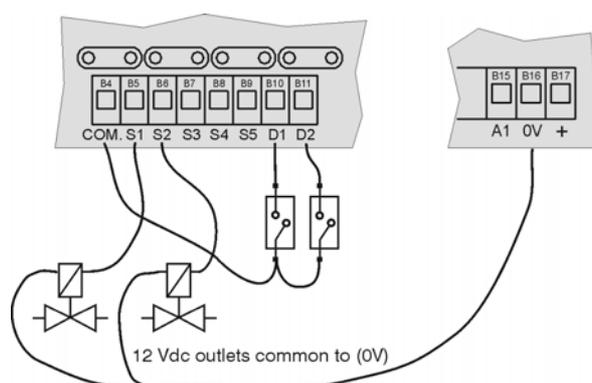
It is also necessary to connect the box terminals to a ground pick to work as a terminal earth.

Inputs and outlets connection:

The outlets will be connected between the outlets common "0V" 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 solenoids must be long distance and 12 Vdc.

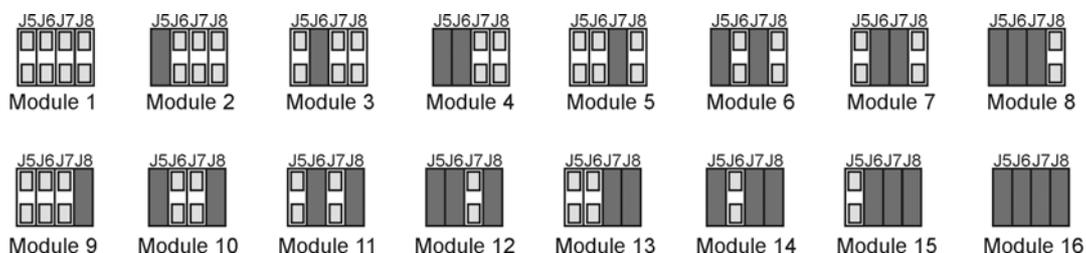
The digital inputs will be connected between the common (COM) and the corresponding terminal (D1 or D2). These inputs are optolinked.

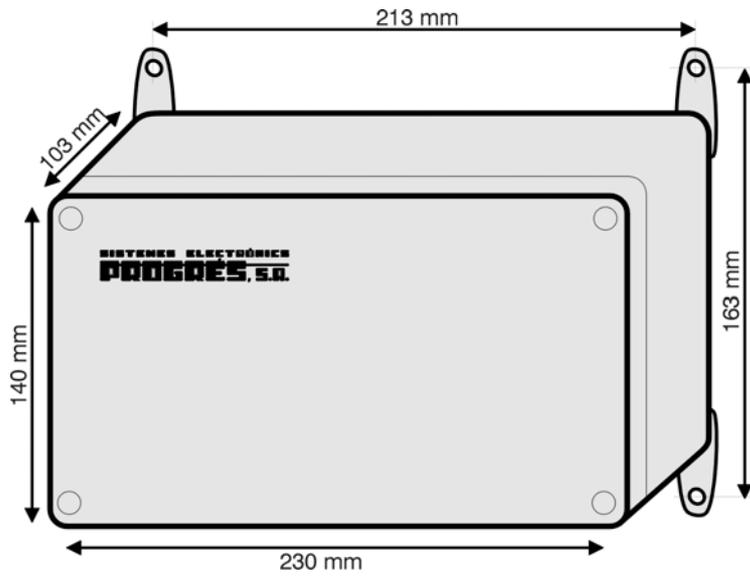
The sensors connected to module have to be the type of 4-20 mA. The sensor power supply will be connected to the terminals "+" and "0V", the sensor outlet will be connected to one of the inputs (from "A1" to "A2"). The sensor power supply is 11,8 Vdc.



Module number:

Every one of the expansion modules connected to an Agrónic 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, this number is indicated in "Parameters-Modules".



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

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