SUITABLE AGRICULTURE 4.0

SISTEMES ELECTRÒNICS PROGRÉS, S.A.

Management Computers >

> Agronic 5500

Automation

DESCRIPTION:

Application

- Irrigation and fertigation control unit
- Soilless greenhouses, cultivations on soil and vineyards
- EC and pH management

Specifics

- LCD display - 128/64 pixel-backlit
- Waterproof soft-touch keyboard, alphanumeric, 15 keys
- Language: italian (others on request)
- Box version for free installation

Hardware Features

- Outputs: 10/20/30
- Preconfigured inputs: 4 fertilizers - 1 acid
- Digital inputs: 16 (expandable)
- Analog inputs: 6 - 12
- Counter inputs: 10
- 220/24 V AC transformer not included in the specific model
- Free installation box dimensions: 296 x 287 x 120 mm

Materials

- Free installation box: PC/ABS
- Front panel: aluminium
- Box support: stainless steel

MODELS CHART

Model	Supply	Solenoid type output tension
220/24 AC	220 V 50 Hz AC	24 V AC
12 V DC	12 V DC	12 V DC

Model	Stations					
	10		20		30	
	Box	Built-in	Box	Built-in	Box	Built-in
	Code	Code	Code	Code	Code	Code
220/24 AC	OPG1303	OPG1304	OPG1305	OPG1306	OPG1311	OPG1312
12 V DC	OPG1307	OPG1308	OPG1309	OPG1310	OPG1313	OPG1314

Irrigation

- It manages the irrigation of 30 sectors governed by 16 independent programs
- Each program includes starting conditions, irrigation values in time or volume
- Up to 9 sectors
- Fertigation by conductivity or uniform managed in units of time or volume
- Procedure for adjusting the pH, procedure for mixing the incoming water
- There are different ways of starting the program, by means of determining factors, by sensors, sequential, based on the days of the week or the frequency of days and an active time
- A program can perform pulse irrigations

Fertigation

- It controls the injection of up to 4 fertilizers, an acid, a fertilizer for the treatment and a mixer
- It can inject the fertilizer independently for each program by adjusting the conductivity (EC) by means of a proportion between the 4 fertilizers, or by uniform
- application where the amount of each fertilizer will be uniformly divided in irrigation
- Independent pre-irrigation and post-irrigation for each program

Pumping

- Agronic 5500 has from 1 to 2 general irrigation outputs, or pumps, with assignment of activation sectors
- Optionally start a diesel engine or a generator set, check the inputs for start, stop, contact and pre-heat. Start and Stop electric pump. Malfunction detection

Blending

- Controls the mixing of two waters to obtain water conductivity according to the active irrigation program

Cleaning the filter

- It allows you to clean up to 9 filters, choosing the washing time - programmable break between filters
- The start of the washing sequence can be set by the differential pressure and / or by the time and volume of the water flow
- It can be performed only at the beginning or during irrigation
- The behavior of fertigation and irrigation can be configured while filter cleaning is in progress

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Nebulization

- It manages the nebulization of up to 4 groups with a maximum of 8 valves per group
- Cooling and / or humidification function through temperature and / or humidity sensors

Determining factors

- Agronic 5500 has a total of 50 fully configurable determinants to perform tasks that take into account the condition or values of digital or analog sensors or meters, as well as errors produced in EC, pH or mix regulation
- The factors are so different that they are able to perform permanent, temporary or conditional stops, applied to a particular program or to all, to start and / or stop

an irrigation process, to change the frequency of irrigation cycles, to produce a warning, to adjust irrigation or fertilization at the start of the irrigation program based on an instantaneous value from a sensor, the integrated value from the previous irrigation process, etc.

- Furthermore, each determinant can be configured to generate an SMS message

Solar Irrigation

- Optionally, irrigation management on systems with solar panels connected directly to a variable frequency drive to activate an irrigation pump
- It also allows you to have hybrid installations with energy from the electricity grid or from a generator. This operation has different priorities for irrigation at different

pressures

- The radiation sensor conditions irrigation until there is enough energy to generate the working pressure

External modules

- Optionally, it allows connection to AgroBee radio modules, increasing the possibility of expansion and the use of new functions
- It is a system based on the ZigBee protocol on free band 868/915 MHz
- It allows you to remotely locate irrigation valves, digital and analog sensors and meters, easily, through the different modules of the range

Automation

Options	Code	Description
Option for expansion of Agronic 5500 analog inputs	FER190	Option for A-5500 6 analog inputs
Specific option for diesel pump systems management. Start/stop, general contact and pre-heating	FER2517	Diesel engine
Specific option for management of generator powered systems. 12V start command, 220 V AC power supply. Including diesel engine management (for 20 outputs only)	FER192	Dual-voltage option + diesel engines
Option for mixing control of 2 different water sources	FER197	Mixing option
SDI expansion kit 12 + 4 analog outputs x A 5500	FER199	SDI option 12 + 4 analog outputs
Specific option for Agronic Agrobee radio system connection. Including Agrobee coordination device, omnidirectional antenna, 10 mt cable connection	FER2507	ZIGBEE Agrobee connection option
	FER2520	Agronic Agrobee LoRa interface

Communication - Hardware		Code	Description
Via cable local communication	RS485 max 100 mt	FER2518	RS485 link
	USB 2.0 max 3 mt	FER2504	USB link

Communication - Hardware		Code	Description
Remote communication	Modem GPRS (SIM)	FER196	Modem GPRS/SMS option
	Wi-Fi max 20 mt	FER200	Wi-Fi option
	RADIO max 2 km	FER198	Radio link 433 option

Communication - Software	Code	Description
It supplies access to the system by Agronic App and/or Web. GPRS modem or Wi-Fi module requested. Activated by unblock code	FER194	WEB platform (including Agronic APP and Agronic WEB)

Power supplies	Code	Description
Optional standard power supply for 12 V DC outputs from 220 V AC mains	FER2512	Transformer 220V - 12 V DC 2A
Optional standard power supply for 24 V AC outputs from 220 V AC mains	FERC974	Transformer 220V - 24 V AC 50 VA
Control board x Agronic w/transformer	EQEA024	Transformer 230/24 V AC 100 V A x Agronic

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