



**BUILT-IN CONTROLLERS FOR PROFESSIONAL
AND INDUSTRIAL SUCTION SYSTEM**



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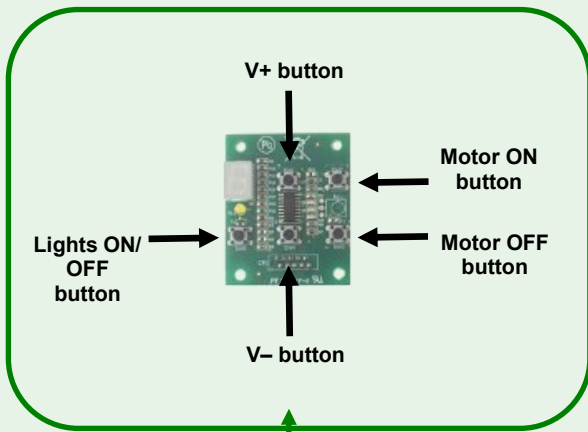
Intended for the professional and industrial suction sector, built-in controllers made by Fasar Elettronica are versatile and efficient **microprocessor systems**, that allow to manage single-phase induction motors to ensure the regular air exchange in all closed environments where focus vapors, herbs, fumes and dust, ensuring comfort and safety in every situation.

Extremely reliable, because they are designed to stringent quality standards, the proposed devices are able to satisfy the most different needs, thanks to the **different user interface** types available, to the possibility of managing optional inputs and outputs and the opportunity to combine with a polycarbonate mask.

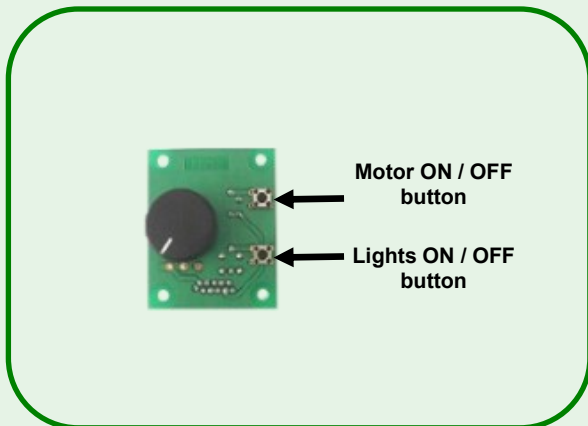
For those special applications that require to vary the air flow with extreme rapidity and without the operator intervention, as it typical appens in the case of the **oven hoods**, it is available a specific built-in electronic system family specially designed to **automatically change the suction motor's speed** as a function of the operating conditions, with obvious advantages in terms of effectiveness and energy saving.



DIGITAL SPEED REGULATOR FOR 900 W SINGLE PHASE INDUCTION MOTORS p/n FEGR005



- 8 motor speed settable: the speed from 1 to 7 are partialized, the maximum speed is 8, not partialized.
- **Motor ON** key. *At the press of the button, the motor switch on at the 4th speed. After 20 seconds, it activates the gas valve and this event is signaled by the LED switch on.*
- **Motor OFF** key. *When the button is pressed, is immediately switch off the gas valve (LED switch off) and the motor begins to aspirate at full power for 20 seconds, and then stops.*
- Lights **ON/OFF** key.
- **Motor speed increase** key.
- **Motor speed decrease** key.



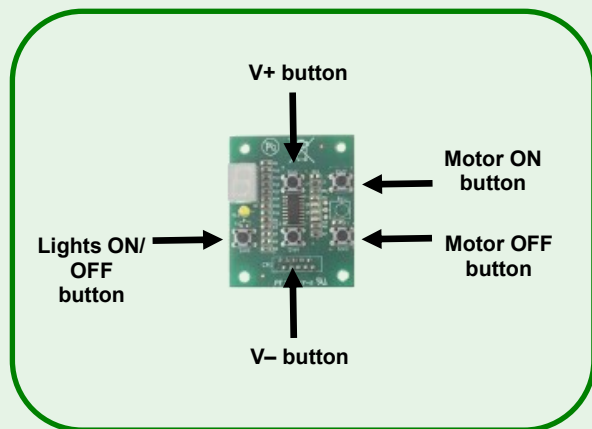
ANALOG SPEED REGULATOR FOR 900 W SINGLE PHASE INDUCTION MOTORS p/n FEGR016

- Speed regulation through linear potentiometer.
- **Motor ON / OFF** key. *After 20 seconds from the motor's switch on, the gas valve is activates. With motor running, pressing the ON / OFF button, it immediately switch off the gas valve and the motor begins to aspirate at full power for 20 seconds, and then stops.*
- Lights **ON/OFF** key.
- Flat cable (10 pin) L= 310mm power board and keyboard interface.





DIGITAL SPEED REGULATOR FOR 900 W SINGLE PHASE INDUCTION MOTORS p/n FEGR017



- 8 motor speed settable: the speed from 1 to 7 are partialized, the maximum speed is 8, not partialized.
- **Motor ON** key. *At the press of the button, the motor switch on at the 4th speed. After 20 seconds, it activates the gas valve and this event is signaled by the LED switch on.*
- **Motor OFF** key. *When the button is pressed, is immediately switch off the gas valve (LED switch off) and the motor begins to aspirate at full power for 20 seconds, and then stops.*
- **Lights ON/OFF** key.
- **Motor speed increase** key.
- **Motor speed decrease** key.
- Flat cable (10 pin) L= 310mm power board and keyboard interface.



DIGITAL SPEED REGULATOR FOR 350 W SINGLE PHASE INDUCTION MOTORS p/n FEGR020



**POLYCARBONATE
PANEL
p/n FE1015**

Combinable to
p/n FEGR017 and
p/n FEGR020

SPEED REGULATOR FOR 350 W SINGLE PHASE INDUCTION MOTORS WITH 0-10 V INPUT p/n FE1008

The FE1008 regulator peculiarity is the possibility to vary the motor speed connected to it both through a **potentiometer (optional)**, either through an **analog input 0-10 V**: this last management mode is useful in a wide range of applications and in particular, for a **control through PLC**.

Motor start management through speed rush.

Board with safe isolation from the network (4000 Vac).

Wiring for optional 0-10V input.



TECHNICAL FEATURES

| | FEGR005 | FEGR016 | FEGR017 | FEGR020 | FE1008 |
|--|---------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|----------------------|
| Supply | 220-240Vac - 50Hz | 220-240Vac - 50Hz | 220-240Vac - 50Hz | 220-240Vac - 50Hz | 220-240Vac - 50/60Hz |
| MAX power MOTOR load | 900 W | 900 W | 900 W | 350 W | 350 W |
| MAX power LIGHTS load | 500 W | 500 W | 500 W | 500 W | Unmanaged |
| Phase partialization system for the motor's management | Yes | Yes | Yes | Yes | Yes |
| ON/OFF lights control through relay | Yes | Yes | Yes | Yes | Unmanaged |
| Solenoid gas valve Management | Yes | Yes | Yes | Yes | Unmanaged |
| User interface | Keyboard with 5 keys | Keyboard with 2 keys and rotary knob | Keyboard with 5 keys | Keyboard with 5 keys | Unmanaged |
| HW and SW EMC filtering | Yes | Yes | Yes | Yes | Yes |
| Possibility to customize the firmware | Yes | Yes | Yes | Yes | Yes |
| 10 pin flat cable L=310mm with sheath | No | Yes | Yes | Yes | No |
| Visual signals | 7 segments red display and yellow led | None | 7 segments red display and yellow led | 7 segments red display and yellow led | None |
| Polycarbonate panel | p/n FE1015 Optional | p/n FE1016 Optional | p/n FE1015 Optional | p/n FE1015 Optional | None |
| On/off voltage load by triac | Max power 150W Optional | Max power 150W Optional | Max power 150W Optional | Max power 150W Optional | No |
| Inputs/Outputs for sensors and/or external commands | Optional | Optional | Optional | Optional | Optional |

Note: Pay attention to the regulator ventilation, especially for absorbed power near to the maximum.

On request it is possible to provide cables for supply and for loads.

HOOD OVEN CONTROLLER

p/n FEGF01



FEGF01 is a microprocessor system designed to control the suction motor of an oven hood **without the operator intervention**.

The device is able to turn on and turn off independently the motor and to set two different speeds: the first, which provides a reduced air flow, and the second that realizes the maximum air flow.

The FEGF01 controller is able to manage a single phase induction motor of **350 W**, in addition to a **solenoid valve** which is activated with the motor and remains open as long as the motor turn off: **the suction motor's switching on and off, as well as the transition to the highest speed is affected by the temperature values acquired by the two probes.**

The critical temperature thresholds are fixed, but can be changed at the customer's request to adapt the controller operation to the specific needs derived from the particular installation.

HOOD OVEN CONTROLLER

p/n FEGR018

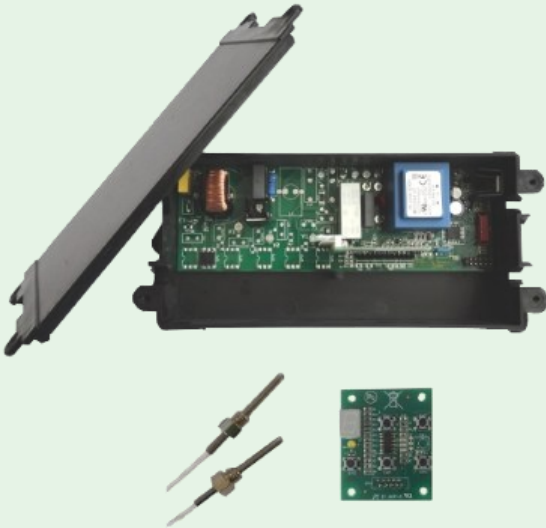


FEGR018 is an electronic system for the hoods oven management and is able to control a single phase induction motor of **350 W**, a solenoid valve and, thanks to the keyboard provided in the supply, also the suction system's lights. The device requires that the user, through the keyboard commands, turn on and off the suction motor: **when the motor is turn on the maximum speed activation is automatic** and, in particular, slaved to the

temperature probe detections; when the motor is turn off, by using the keyboard, it is always possible to manually activate the suction maximum speed.

Is possible to combine the control system with a polycarbonate panel (p/n FE1015) ordered separately.

CONTROLLER FOR HOODS OVEN p/n FEGR019



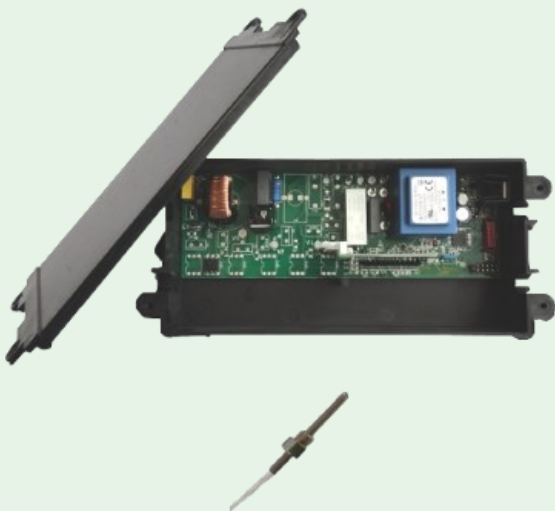
Efficient and extremely versatile, the **FEGR019** electronic controller can manage a single phase induction motor of **350 W**, a solenoid valve and the hood oven lights.

The proposed system **automatically controls**, as a function of the temperature values acquired by the two probes, **the suction motor's switching on and off, and the maximum speed's activation and deactivation**; furthermore - being equipped with a user interface supported by a keyboard, a seven-segment display and a LED - the

device allows the operator to directly control the various loads connected to the controller, but above all allows to set the temperature values that regulate the hood's automatic operation, thereby ensuring the maximum degree of customization.

The system can be combined with a polycarbonate panel (p/n FE1015) to optimize the installation's aesthetic impact.

CONTROLLER FOR HOODS OVEN p/n FEGR021



Intended for the hoods oven management, the **FEGR021** controller is an efficient electronic system specially designed for all those applications where it is necessary to minimize the suction system's intervention times in reply to a sudden temperature change. The system, in fact, uses the information received from a **temperature probe only to turn on and turn off the suction motor, while the maximum speed is automatically selected at the oven's opening.**

The FEGR021 controller can drive a single phase induction motor of **350W** and also allows to control a solenoid valve, which is open only when the motor is turn on. The possibility to operate another load and to use optional inputs and outputs makes the system extremely flexible and easy to adapt to different needs.

TECHNICAL FEATURES

| | FEGF01 | FEGR018 | FEGR019 | FEGR021 |
|--|-------------------|--------------------------------------|--------------------------------------|-------------------|
| Supply | 220-240Vac - 50Hz | 220-240Vac - 50Hz | 220-240Vac - 50Hz | 220-240Vac - 50Hz |
| MAX power MOTOR load | 350 W | 350 W | 350 W | 350 W |
| MAX power LIGHTS load | Unmanaged | 150 W | 150 W | Unmanaged |
| Microprocessor control system | Yes | Yes | Yes | Yes |
| Phase partialization system for the motor's management | Yes | Yes | Yes | Yes |
| ON/OFF solenoid control through relay | Yes | Yes | Yes | Yes |
| PT1000 temperature probe | No. 2 | No. 1 | No. 2 | No. 1 |
| User interface | Unmanaged | Keyboard with 5 keys | Keyboard with 5 keys | Unmanaged |
| Possibility to customize the firmware | Yes | Yes | Yes | Yes |
| 10-pin flat cable with sheath | No | Optional- Custom length | Optional- Custom length | No |
| Visual signals | None | 7 segmets red display and yellow led | 7 segmets red display and yellow led | None |
| Polycarbonate panel | No | Optional - p/n FE1015 | Optional - p/n FE1015 | No |

Note: Pay attention to the regulator ventilation, especially for absorbed power near to the maximum.

On request it is possible to provide cables for supply and for loads.



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