



Il successo del vostro progetto è nell'aria...

SmartEC

Energy saving product

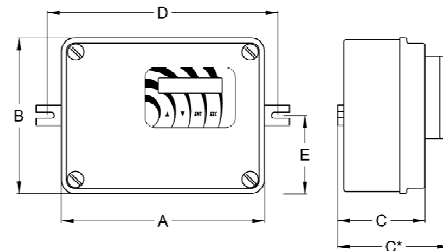
MANAGEMENT INSTRUMENT FOR TEMPERATURE, HUMIDITY, FLOW RATE, PRESSURE

The SmartEC instrument is used to read signals from sensors and quickly and economically adjust humidity, temperature, flow rate, volume, pressure (also differential), proportionally or PID with 0.10V or Modbus control outputs. In addition to the control outputs, SmartEC has digital inputs and relays for managing intervention thresholds and alarms. SmartEC with IP55 grade can be conveniently fixed to the wall near the sensors and the device / inverter to be controlled and can be connected via Modbus to a supervision system. The keyboard (panel version T2 on request) with display is used to program, set the parameters values and read the information about the inputs and outputs with a simple, clear and guided software through the following communication languages: English, Italian, Spanish, French, German, Russian (user manuals downloadable from FAE website). Some areas of application: pressure control on pumping units, volume and temperature control of the liquid on tanks, temperature and flow control on heat recovery units, pressurization and air flow control on painting systems, ducts air, tensile structures, white rooms, public rooms, technical rooms with heat development.

The standard series provide the following characteristics:

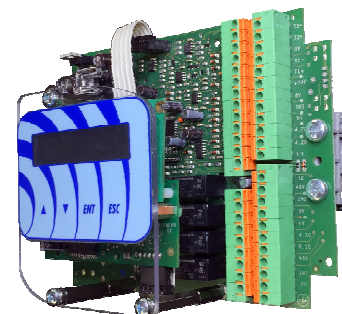
- Mono-phase Power supply 230/400Vac with IP55 grade, or 24Vac/dc with IP00 grade for din rail DIN/EN50022.
- Operating temperature: -30T55°C (-30°C with Oled display, -20°C with Lcd display with IP55 grade; storage temperature -40T80°C,
- 3 inputs 4.20mA / 0,5.4,5V / 0.10V configurable for temperature, pressure, flow, humidity
- Input for temperature NTC sensor
- 2 inputs for frequency signals
- Up to 6 configurable digital inputs
- 3 configurable 0.10V outputs
- Auxiliary outputs +12V and +5V to supply the sensors
- 4 configurable relays
- Modbus RTU Slave transmission
- Standards: EN60730-1, EN61000-6-2, EN61000-6-3.

IP55 Version



Weight (kG)	Dimensions (mm)				Fix screw mm			
	A	B	C	C*	D	E	F	Ø
1,1	200	154	86	115	220	77	/	M4

IP00 Version





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SmartEC can be request also with:

- Internal clock weekly to control the reduced speed, and for a more precise diagnosis,
- Oled display for a perfect parameters reading/editing also with a very low temperature,
- Door for keyboard protection,
- Master ModbusRTU transmission.

Pressure control on pump unit

Pressure sensor (1) 4..20mA –13 bar

Pressure sensor (2) 4..20mA –13 bar

Pressure Δ
2.0 bar

Pressure 1
4.0 bar

Pressure 2
6.0 bar



- 0..10V output connected to the pump inverter for maintain (PID control) the differential pressure at **2 bar**
- Alarm relay for exceeding sensor threshold threshold sensor 1 / sensor 2 / differential sensor

Volume and temperature control of a liquid inside a tank



Pressure sensor 4..20mA –1 bar
Temperature sensor

Volume 1
40.000 liters

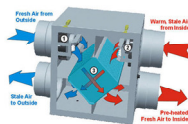
Temperature 2
15°C



- Reading of the volume
- Relay for cooling/heating activation in order to maintain the temperature
- Alarm relay for exceeding temperature

Control of a heat recovery unit on a ventilation system

Inside temperature sensor NTC
Outside temperature sensor NTC
Digital input of filter clogged



Temperature 1
24 °C

Temperature 2
15 °C

Set-point
25°C



- 0..10V outputs for the fans inverters
- Alarm relay for filter clogged
- Bypass activation relay

Control of over pressure in a painting site



Pressure 1
2 bar

Set-point
2 bar



- 0..10V output connected to the admission fan
- 0..10V output connected to the emission
- Alarm relay for filter clogged