Gefran 1600-1800 Controllers

- Universal input configurable from the faceplate
- Acquisition of the input signal every 120msec; resolution 30000 steps
- Two control outputs: relay, logic or analogue with Heat/Cool function
- 3 configurable alarms
- 2 analogue outputs (setpoint retransmission)
- 2 digital inputs with configurable function
- Auxiliary input for C.T. or remote setpoint
- Heater Break or shortcircuit probe alarm
- Self and Auto-tuning, Soft-start, Local/Remote setpoint, Auto/Man
- Function multiset, rampa di set, timer

Microprocessor controller, format 48x48 / 96x96 (1/8 DIN - 1/4 DIN) manufactured using SM Technology.
The instrument provides a complete operator interface, protected by a Lexan membrane that ensures level IP65 faceplate protection.
It has 4 keys, two green LED displays, each with 4 digits, 4 red indicating LED's for the 4 logic or relay outputs, and a further 3 LED's that are programmable to indicate the various operational states of the instrument.
The main input for the process variable is universal and provides the possibility to connect many types of input sensor: thermocouple type J, K, R, S, T, B, E, N, Ni-Ni18Mo, L; resistance thermometer Pt100 3-wires; thermistor PTC; 4-linear inputs 0-50mV, 10-50mV, 2-10V, 0-10V, 0-20mA, 4-20mA, and potentiometer, all with the possibility of custom linearisation that can be defined using the faceplate keys.
The type of input is selected from the faceplate keys and no external shunts or adapter are required. A second auxiliary isolated analogue input is available, which can also be configured for a linear input (0-10V, 2-10V, 0-20mA / 4-20mA), for remote setpoint, potentiometer or current transformer.
The auxiliary input function is completely configurable, including the possibility of a custom linearization. It is possible to configure the 2 available isolated digital inputs for selection of up to 4 local setpoints; start, stop and reset of internal timer; Auto/Man, Loc/Rem functions; alarms memory reset; input hold function.
The instrument can have up to 4 relay (3A/250V) or logic (12Vdc, 20mA) outputs and up to 2 isolated analogue outputs in voltage or current.
The function of each output is completely configurable by faceplate.
The available functions include: control output, alarm output, timer, digital input repetition, retransmission of process value, setpoints, deviation, alarm setpoint or value read from digital communication.
The Heat/Cool adjustment offers the possibility of setting the cooling parameters in relation to the type of water, oil or air fluid.
A further isolated output (10 or 24Vdc, 30mA max.) is available for powering external transmitters or potentiometers.
The serial communication interface RS485 (RS232C compatible) makes it possible to read or modify any parameter and to govern the instrument online (local/remote manual/automatic communication, internal timer control, direct control of outputs).
Protocols available: MODBUS RTU and CENCAL (Gefran).
Using these it is possible to write to any of the instrument parameters.
All the programming procedures of the instrument are facilitated by the grouping of the parameters in function blocks (CFG for the control parameters, Inp for the inputs, Out for the outputs, etc) and by the possibility of selecting a simplified menu for entering the most frequently used parameters.
To simplify the configuration even further, a programming kit is available for PC, which includes a menu driven configuration program for Windows and the necessary cable to connect the instrument (see data sheet cod. 80021).