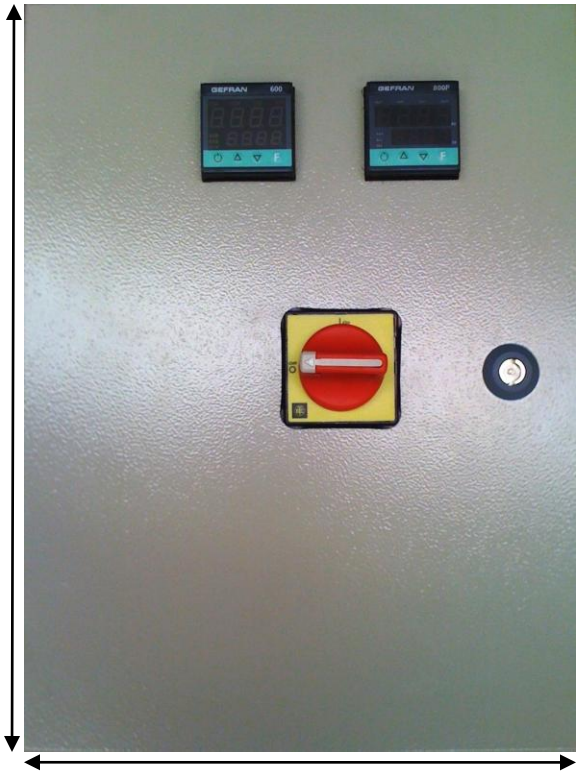
AutoScreen™ Time Based Controller

• Ideal for fairly consistent levels of light to medium contaminants



- Fully Automatic for continuous, uninterrupted extrusion
- The simplest of any screenchanger controls
- Set the timer to the desired screen advance interval
- Set the timer for the screen exit heater's "on time"

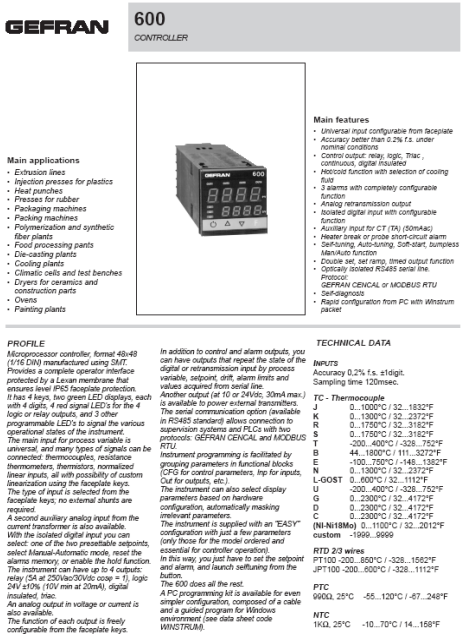
That's all there is to it!

Included:

- Gefran 600 microprocessor temperature controller

☺There's no need for an additional extruder heat zone

- Gefran 800P dual output microprocessor controller
- Thermocouples
- Main power disconnect with panel door locking



GEFRAN 600
CONTROLLER

Main applications
- Extrusion lines
- Injection presses for plastics
- Heat punches
- Presses for rubber
- Packaging machines
- Packing machines
- Polymerization and synthetic fiber plants
- Food processing pants
- Die-casting plants
- Cooling plants
- Climatic cells and test benches
- Dryers for ceramics and construction parts
- Ovens
- Painting plants

Main features
- Universal input configurable from faceplate
- Accuracy better than 0.2% f.s. under nominal conditions
- Control output: relay, logic, Triac , continuous, digital insulated
- Hot/cold function with selection of cooling fluid
- 3 alarms with completely configurable function
- Analog retransmission output
- Isolated digital input with configurable function
- Auxiliary input for CT (TA) (50mAac)
- Heater break or probe short-circuit alarm
- Self-tuning, Auto-tuning, Soft-start, bumpless Man/Auto function
- Double set, set ramp, timed output function
- Optically isolated RS485 serial line. Protocol: GEFRAN CENCAL or MODBUS RTU
- Self-diagnosis
- Rapid configuration from PC with Winstrum packet

PROFILE

Microprocessor controller, format 48x48 (1/16 DIN) manufactured using SMT. 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 signal LED's for the 4 logic or relay outputs, and 3 other programmable LED's to signal the various operational states of the instrument. The main input for process variable is universal, and many types of signals can be connected: thermocouples, resistance thermometers, thermistors, normalized linear inputs, all with possibility of custom linearization using the faceplate keys. The type of input is selected from the faceplate keys; no external shunts are required. A second auxiliary analog input from the current transformer is also available. With the isolated digital input you can select: one of the two presettable setpoints, select Manual-Automatic mode, reset the alarms memory, or enable the hold function. The instrument can have up to 4 outputs: relay (5A at 250Vac/30Vdc coop = 1), logic 24V ±10% (10V min at 20mA), digital insulated, triac. An analog output in voltage or current is also available. The function of each output is freely configurable from the faceplate keys.

In addition to control and alarm outputs, you can have outputs that repeat the state of the digital or retransmission input by process variable, setpoint, drift, alarm limits and values acquired from serial line. Another output (at 10 or 24Vdc, 30mA max.) is available to power external transmitters. The serial communication option (available in RS485 standard) allows connection to supervision systems and PLCs with two protocols: GEFRAN CENCAL and MODBUS RTU. Instrument programming is facilitated by grouping parameters in functional blocks (CFG for control parameters, Inp for inputs, Out for outputs, etc.) The instrument can also select display parameters based on hardware configuration, automatically masking irrelevant parameters. The instrument is supplied with an "EASY" configuration with just a few parameters (only those for the model ordered and essential for controller operation). In this way, you just have to set the setpoint and alarm, and launch self-tuning from the button. The 600 does all the rest. A PC programming kit is available for even simpler configuration, composed of a cable and a guided program for Windows environment (see data sheet code WINSTRUM).

TECHNICAL DATA

INPUTS
Accuracy 0.2% f.s. ±1digit.
Sampling time 120msec.

TC - Thermocouple

J	0...1000°C / 32...1832°F
K	0...1300°C / 32...2372°F
R	0...1750°C / 32...3182°F
S	0...1750°C / 32...3182°F
T	-200...400°C / -328...752°F
B	44...1800°C / 111...3272°F
E	-100...750°C / -148...1382°F
N	0...1300°C / 32...2372°F
L-GOST	0...600°C / 32...1112°F
U	-200...400°C / -328...752°F
G	0...2300°C / 32...4172°F
D	0...2300°C / 32...4172°F
C	0...2300°C / 32...4172°F
(Ni-Ni18Mo)	0...1100°C / 32...2012°F
custom	-1999...9999

RTD 2/3 wires
PT100 -200...600°C / -328...1562°F
JPT100 -200...600°C / -328...1112°F

PTC
990Ω, 25°C -55...120°C / -67...248°F

NTC
1KΩ, 25°C -10...70°C / 14...158°F

GEFRAN 800P
PROGRAMMER - CONTROLLER

Main applications
- Plastics extrusion lines and injection moulding machines
- Polymerisation plant for synthetic fibre production
- Climatic chambers and test benches
- Continuous ovens and drying unit ceramics and bricks
- Chemical and pharmaceutical industries
- Furnaces
- Food processing plant
- Painting machines
- Water treatment
- Siderurgy industry
- Packaging machinery

Main features
- Universal input configurable from the faceplate
- Acquisition of the input signal every 120msec ; resolution 30000steps
- Two control outputs: relay, logic or analogue with Heat/Cool function
- 3 configurable alarms
- 2 analogue outputs (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
- 12 (16) steps arranged in max. 4 programs
- Second SP retransmitted to a slave controller, with same time-base

GENERAL

Microprocessor setpoint programmer and controller, format 48x48mm (1/16 DIN). Manufactured using SMT, 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, resistance thermometer, thermistor, linear inputs, potentiometer, all with the possibility of custom linearisation that can be defined using the faceplate keys. It is possible to activate correction of the input using a linear function defined by way of two points on it. 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, potentiometer or current transformer. There are two isolated digital inputs for entering the program commands of start, stop and reset, choosing the program and to step through the program. The instrument can have up to 4 relay (5A/250V) or logic (11Vdc, 20mA) outputs and up to 2 isolated analogue outputs in voltage or current. The function of each output is configurable and event outputs linked to the individual program step as well as control and alarm functions can be provided. 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 commutation, 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. The sequence for setting up the programmer is particularly brief and there are up to 8 steps, each with a setpoint ramp and hold. It is also easy to set up any interlocks required from logic inputs and the event outputs, as well as the type of restart preferred using the few set-up steps in the "Step" menu. The various steps can be regrouped in 4 different programs. 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. The instrument can also select the parameters is needs to display as a function of the hardware configuration, automatically concealing those that are not influential. 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.WINSTRUM). The programmer, as well as executing the program controlling the main output (heat/cool with two independent PID loops), can also retransmit 2 different setpoint profiles, with a common time base, to a slave controller using the two analogue outputs. In the execution phase of the programmer, the two displays are used to monitor the behaviour of the program and make any necessary adjustments immediately.

For Gefran controller downloads visit www.gefran.com

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