

# COMPLEMENTARY PRODUCTS

## TEMPERATURE CONTROLLERS

### THE series

1/8 DIN mP-based controllers

- Standard 48x96 mm format
- Versions with 2 or 3 control points
- PID action with ADT autoadaptive
- Diagnostic of the regulation loop
- Automatic or manual regulation



The **THE** temperature controllers, in the standard 48x96 mm format, are available in versions with single or double display, with 12-24 Vac/dc or 80-240 Vac, and 2 or 3 control points with main relay or transistor output. The main PID control action adjusts itself automatically to the optimum parameters with the AT initial autotuning, or with the ADT permanent autoadaptive function. The auxiliary outputs can be programmed on 16 different alarm functions or fixed points. The LFA diagnostic function is able to detect failures along the entire regulation loop, from the sensor to the actuator; moreover the regulation can be either automatic (closed loop) or manual (open loop), setting the output percentual value.

### THQ series

1/16 DIN mP-based controllers

- Standard 48x48 mm format
- Panel configurable parameters
- TC-J/K and RTD Pt100 inputs
- PID action with ADT autoadaptive
- LFA diagnostics of the regulation loop



The microprocessor-based controllers of the **THQ** series are characterised by remarkable regulation precision, in particular in heat-sealing and thermoforming operations typical of the automatic packaging. The AT initial autotuning and the ADT permanent autoadaptive functions can both be activated through the PID control action, responding excellently to frequent or fast system variations, as for example in process start and stop.

The panel with single or double display allows the setting of all the controller's values and configurations, such as sensor input, control action and alarm functions. The LFA diagnostic function is able to detect sensor, cable or heating resistance failures.

### TH-T series

1/16 DIN basic and advance controllers

- Standard 48x48 mm format
- Relay output or static output for SSR
- 4-20 mA or 0-10 V analogue output
- Current transformer and HBA function
- RS485 serial for MODBUS-RTU protocol



The **TH-T** temperature controller series includes basic models suitable for more simple and cost-effective applications as well as advanced models created specifically for the more evolved control and interface systems. Programming of the temperature controllers is quick and easy as the most frequently-used configurations can be set with few keyboard operations. Models with a RS485 serial interface can send the parameter configuration and receive the controlled values through an industrial PC that can control different units. Versions with a current transformer input, available as an accessory for measurements reaching 25 or 100 A, can detect even a partial load failure, as for example due to a broken heating element. The series includes models with opto-isolated relay and transistor outputs to control static relays, as well as models with 4-20 mA or 0-10 V normalised proportional analogue outputs.