# PROTHERM 10

## Temperature Controller

**AFFILIATED MEMBERS**

Furnace Control Corp. | Marathon Monitors Inc. | Process-Electronic | Waukee Engineering Co.

# FEATURES & CHARACTERISTICS

The **PROTHERM 10** is a cost-effective temperature and industrial controller with expanded functionality, including a programmer and an optional datalogger.

## MAIN FEATURES

- 100 ms cycle time, i.e. also suitable for fast control loops
- Up to three freely configurable analog outputs, e.g. as process value output
- Up to 9 relay outputs
- Customer-specific linearization for all sensors
- Settings can be blocked via password and internal switch for high security
- Extended temperature range up to 131°F (55°C) allows mounting close to the process
- Modular design
- Easy 2-point or offset measurement correction
- Logical combination of digital outputs, e.g. for general alarm
- RS 422/485 Modbus RTU interface
- Ethernet interface
- Configuration interface
- Optional built-in transmitter power supply
- Splash-water proof front IP 66
- Setup-Wizard

## HMI DISPLAY

- Graphical, clearly readable red or green display (160 x 80 pixels)
- Dual colour display (green / red)
- Colour changes e.g. on alarm
- Multi-language option (English, French, German, Italian, Spanish)
- Custom splash-screen on startup (bitmap file)
- Alarm status view
- Trend view
- Status LEDs for heating / cooling
- Self-tuning function and alarm

## CONFIGURATION & OPERATION

- Convenient setup Wizard for simple configuration (inputs, alarms, outputs, communication, and real-time clock)
- Universal input for thermocouple, RTDs, and standard signals (mA, mV or V)
- Versatile output options: Relay, SSR driver, Triac, and standard signals (max. 9) for precise adaptation to the process
- Digital inputs (2 max) for setpoint selection, programmer control, datalogger start/stop, control output enable/disable or auto/manual control
- Configurable menus
- Upload/download configuration files possible with Protherm 9800 Production Management Software
- Password protected Supervisor and Configuration mode
- Pre-tune and self-tune function
- Master-slave configuration for multi-zone applications

## PROGRAMMER (OPTIONAL)

- Up to 255 segments for free allocation in max. 64 programs
- Ramp, Dwell, Hold, Loop, or Jump to other program
- User-defined program names
- Delayed or real-time (date/time) program start
- Up to 5 event outputs

## DATALOGGER (OPTIONAL)

- Recording of historic process data for analysis or reporting
- Logging process data with Protherm 9800 via RS485 rear interface
- Logging of process values, setpoints or alarms (including min, max, and average)
- Run-then-stop or FIFO (first in - first out) buffer recording
- Logging intervals from 1sec to 30 minutes

## PLUG-IN UNIT

Protherm 10 program controllers are built as plug-in modules. This permits a controller to be replaced very quickly without disturbing the wiring. All that is needed is a screwdriver to release the front catch.

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