

Bulletin 909C 2/03

### Universal Temperature

# Controller

### Model ETCO23

## **Exceptional functionality at an affordable price. Proven quality, accuracy and value.**

The ETC023 is a low cost, easy to use 1/4 DIN controller which provides accurate control of process variables including temperature, pressure and flow in applications such as furnaces, ovens, environmental chambers and other process machinery.

The ETC023 Controller incorporates human/machine interface (HMI) and other popular features such as auxiliary current output, input/output isolation, automatic tuning with fuzzy logic overshoot suppression and a universal AC power supply. The industry standard dimensional consistency of the ETC023 means the controller can be easily inserted into existing panel installations.

- Universal input The ETC023 offers one standard universal input which accepts thermocouple, RTD, mA, mV, and volt input types. The input is sampled six times a second with 15-bit resolution to provide a basic accuracy of plus or minus 0.25 percent of full scale.
- Automatic tuning with fuzzy logic This standard feature provides a plug-and-play tuning algorithm that will accurately identify and tune most any process, including deadtime and integrating processes. It speeds up and simplifies startup,



Universal Temperature Controller ETC023 Universal Temperature Limit Controller EHL023

and allows retuning at any set point. Fuzzy logic supresses process variable overshoot resulting from setpoint changes or externally induced process disturbances. It operates independently from auto tuning and allows more aggressive tuning to co-exist with smooth process variable response.

- **Output forms** Output forms include current (4-20mA DC) and 5 amp electro-mechanical.
- **Input/Output isolation** Analog inputs and outputs are isolated from each other and all other circuits.



- Auxiliary output/Digital input The output can be scaled from 4-20mA for 0 to 100% for any range and can represent input 1, PV, active setpoint, local SP1, deviation, or control output. The digital input is mutually exclusive with the auxiliary output.
- Universal switching power Operates on any line voltage from 90 to 264 VAC 50/60 Hz.
- **Limit control** A limit control model, Eclipse EHL023, has a latching relay which is activated whenever the process variable (PV) goes above (High Limit) or below (Low Limit) a preset setpoint value. An alarm message is displayed when the output is activated. Reset is achieved via a key on the front of the controller.
- **High noise immunity** The ETC023 is designed to provide reliable, error-free performance in industrial environments that often disturb highly noise-sensitive digital equipment.
- **Standard features include** Dual display, auto/manual, dual setpoints. setpoint ramp, failsafe outputs, timer, two alarms or a second control output and one alarm, UL recognition, FM approval, CSA certification, and CE approval.

- **Moisture protection** IP65/NEMA3-rated front face permits use in applications where it may be subjected to moisture, dust, or splashing conditions.
- **Quality assurance** The quality of the ETC023 is assured by a one year warranty program which features replacement units in the event of malfunction. Comprehensive customer support includes toll-free technical assistance.
- **Easy to configure** A bright, dedicated configuration display provides unambiguous English prompts that allow easy setup with minimum time and effort. A tactile keyboard prompts quick and accurate entry of all data.
- **Highly secure** Non-volatile memory assures data integrity during loss of power. Four configurable security levels plus a four character code prevent accidental or unauthorized changes to the process.





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