microFLEX M2T Controller

Single Cooling Tower Controller

The **ProMinent® microFLEX** is a cooling tower controller that combines the latest technology with an economical solution. Our breakthough design offers a worry-free thermal flow switch that does not require any user adjustments or calibration.

Standard Features

- Tower conductivity and temperature input
- Flow switch status input
- 5 Key universal keypad
- 2 Line, 16 character backlit display
- Single water meter input

Benefits

- **Selectable Inhibitor Feed:** *Provides 4 feed modes; bleed and feed, bleed then feed, proportional to makeup water volume and percentage time.*

- **Water Meter Input:** *Allows for chemical to be fed based on water volume versus timed pump control methods generally found on comparably priced controllers.*

- **Single Point Calibration:** *For ease of start up and operation. Warning message immediately detects fouled or faulty sensors.*

- **What and Why Information:** *On the controller display is a valuable troubleshooting tool. Solenoid and chemical pump relays show complete status. Shows WHY the relay is on/off.*

- **Controller Run Time:** *Gives total hours per day and total operating days since initial installation.*

- **Robust Diagnostics:** *Provide complete 24-hour history of bleed valve operation, relay run times and minimum/maximum temperatures.*

- **Keypad Password:** *Eliminates unauthorized adjustments.*

- **Communication Options:** *Include Ethernet networking, dry contact alarm relay or 4-20mA output on conductivity.*

- **Optional Web Browser User Interface with Networking Capabilities:** *Provides ability to direct connect to the controller from a portable workstation, such as a laptop computer. Can also view critical processes remotely through the use of a LAN. View our live demo at http://208.37.73.86:1004*

ProMinent®

Specifications

	Rating - Detail	Notes
Analog-Digital I/O		
Conductivity Sensor	Auto ranging from 100uS to 10,000uS compensated	Single point calibration, temperature
Temperature Sensor	32°F to 125°F (0°C to 50°C)	Displayed as F or C
Thermal Flow Switch	1GPM trip within 30 seconds NO FLOW	Typically 10 second trip with in FLOW/
Water Meter Input current	400Hz, 0.5mA @ 5VDC measurement head	Accepts paddlewheel or contacting
Relay Outputs	1 SPST (Inhibitor), 1 SPDT (Bleed)	Single controller fuse
4-20mA Output (optional)	Single DC isolated, loop powered loop	User definable span, alarms on open
Alarm Relay (optional) un-fused	500mA @ 24VDC Dry contact set, alarm	Normally closed contact, open on
Communications User Interface		
Keypad-LCD	5 Key tactile feedback, universal characters 2 line x 16 character, backlit	Scan rate 100 mS nominal User adjustale contrast
10 Base T, TCP/IP Ethernet LAN(optional)	HTML micro web server with user definable IP address	User definable static IP Remote Monitoring & Programming
Controls		
Relay ON/OFF	ON/OFF control valve	Relay 1 chemical feed, Relay 2 bleed
Volumetric feed	User set, measure volume & pump on time	Sequential control, measures make-up volume then bleeds for user set volume
Interlocking	Flow switch contact set input	Relays OFF when contact set opens
Blocking	Inhibitor feed may be set to block on bleed	
Alarms - Feed Limit Timers	Minutes per day	Auto-reset @ Midnight
System		
Units of Measurement	US/Metric selectable measurement	Option to use US or Metric units of
Electrical	120VAC, 50/60Hz	
Internal Fusing	5 AMPS @ 120VAC	
Surge Suppression	Relay 2 N.O. (bleed) contacts snubbed @ 0.1uF, 150ohm	Varistor on AC line input
Accessory Power	15-22VDC, unregulated, thermally fused @ 50mA	
Enclosure	Non-metallic, NEMA 4X	5.9"W x 5.9"H x 3.5"D (150mm W x 150mm H x 90mm D)
Certifications		
CSA: Pending		CSA tested to comply with UL (Pending)