

# microFLEX M2B Controller

## Single Boiler/Condensate Controller

The ProMinent® microFLEX is a powerful controller integrating built-in diagnostics with realtime monitoring in a compact design.

### Standard Features

- Boiler or Condensate Conductivity input
- Single water meter input
- Boiler status input
- Chemical feed relay
- 5 Key universal keypad
- 2 Line, 16 character backlit display
- Boiler blowdown or condensate diverter relay (solenoid valve or motorized ball valve)



### Benefits

- **Selectable chemical feed mode:** Provides 3 feed modes; feed on volume, blowdown & feed and percentage time.
- **Conductivity control:** Can be programmed using timed or continuous sampling.
- **Water meter input:** Allows for chemical to be fed based on water volume versus timed pump control methods generally found on comparably priced controllers.
- **What and Why Information:** Diagnostics shown on display are a valuable troubleshooting tool. Conductivity valve and chemical pump relays show complete status. Shows WHY the relay is on/off.
- **Single point calibration:** For ease of start up and operation. Warning message immediately detects fouled or faulty sensors.
- **Controller run time:** Gives total hours per day and total operating days since initial installation.
- **Robust diagnostics:** Provides complete 24 hour history of blowdown valve operation and chemical relay timing intervals.
- **Keypad password:** Eliminates unauthorized adjustments.
- **Communication options:** Includes Ethernet networking, dry contact alarm relay or 4-20mA output on conductivity.
- **Optional web browser user interface with networking capability:** 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 boiler demo at <http://208.37.73.86:1005>

**ProMinent®**

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## Specifications

	Rating - Detail	Notes
<b>Analog-Digital I/O</b>		
Conductivity Sensor	Auto ranging from 100uS to 10,000uS, rated 250psi	Single point calibration
Water Meter Input	400Hz, 0.5mA @ 5VDC measurement current	Accepts paddlewheel or contacting head
Relay Outputs	1 SPST (Chemical feed), 1 SPDT (Bleed)	Powers either solenoid or motorized valve
4-20mA Output (optional)	Single DC isolated, loop powered	User definable span, alarms on open loop
Alarm Relay (optional)	500mA @ 24VDC Dry contact set,	Normally closed contact, open unfused on alarm
<b>Communications User Interface</b>		
Keypad-LCD	5 Key tactile feedback, universal characters 2 line x 16 character, backlit	Scan rate 100 mS nominal User adjustable contrast
10 Base T, TCP/IP Ethernet LAN (optional)	HTML micro web server with user definable IP address	Static IP Use browser to see I/O, edit program
<b>Controls</b>		
Relay ON/OFF	Captured sample & ON/OFF control	Relay 1 chemical feed, Relay 2 bleed valve
Volumetric feed	User set, measure volume & pump	on time
Interlocking	Contact set input	Blowdown & feed stop
Alarms - Feed Limit Timers	Minutes per day	Auto-reset @ Midnight
<b>System</b>		
Electrical	120VAC, 60Hz	
Fusing	5 AMPS @ 120VAC	
Surge Suppression	Relay 2 N.O. 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)
<b>Certifications</b>		
CSA, CE, UL	CSA tested to comply with UL	