

microFLEX M2B Controller

Single Boiler/Condensate Controller



ProMinent®

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 stauts. 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: <http://controller.prominent.us:1005>

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Specifications

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	Rating - Detail	Notes
Analog-Digital I/O		
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
4-20 mA Output (optional)	Single DC isolated, loop powered	User definable span, alarms on open loop
Alarm Relay (optional)	500 mA @ 24 VDC Dry contact set, unfused	Normally closed contact, open on alarm
Communications User Interface		
Keypad-LCD	5 Key tactile feedback, Universal Characters	Scan rate 100 mS nominal
	2 line x 16 Character, Backlit	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
Controls		
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
System		
Electrical	120/240 VAC, 50/60 Hz, Single Phase	Factory setting
Fusing	5 Amps @ 120VAC	
Surge Suppression	Relays 2 NO Contacts snubbed @ 0.1 uF, 150 ohm	Varistor on AC line input
Accessory Power	15-22 VDC, Unregulated, thermally	
Enclosure	Non-metallic, NEMA 4X	5.9"W x 5.9"H x 3.5"D (150mmW x 150mmH x 90mmD)
Certifications		
CSA, CE, UL	CSA tested to comply with UL	