



**Badger Meter**

## Industrial Controllers

### Model PRC-20 Water Conditioning Controller

#### DESCRIPTION

The Badger Meter® Model PRC-20 electronic water treatment controller has been specifically designed for water treatment operations such as water softening, filtration and other water conditioning processes. The solid-state circuitry and latest microprocessor technology provide accurate, reliable and fast response to the intended application. In addition, it can be used for manual, semi-automatic or fully automated systems.

#### OPERATION

The basic function of the PRC-20 controller is to provide a regeneration signal after a preset amount of water has passed through the flow meter.

When the PRC-20 controller is operating in the Automatic mode and is working in conjunction with the RTR® transmission system, the controller receives pulses from the flow meter equivalent to a fixed amount of water, and deducts them from the preset batch amount. When the counter reaches zero, it immediately reverts to the preset value and the output relay is energized for a pre-programmed period of time, providing an output signal for operation of process equipment or other signal devices.

In the *Manual* mode, the counter remains at zero; the relay remains energized until a signal *Stop* command is received from the front panel or from a remote switch.

#### APPLICATIONS

The PRC-20 controller can be used as a standalone controller in manual systems using the batch signal to alert the operator, or in automatic systems to initiate a new treatment cycle by providing a signal for timers, cycle controllers, chemical feed pumps and other devices.

The controller is used with the complete line of Badger Meter disc and turbo meters and can be wall, pipe or panel mounted in a convenient location at or away from the main treatment system.

Typical applications include:

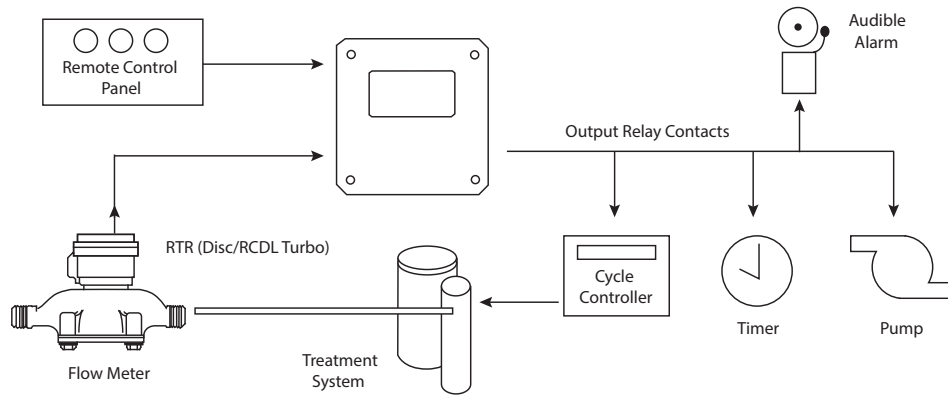
- Commercial and industrial water softening
- Filtration
- De-mineralization
- Reverse osmosis
- Chemical feed systems



#### FEATURES

- Enclosure is rated NEMA 4X (watertight and corrosion-proof) for harsh industrial environment.
- *Start* and *Stop* commands can be controlled remotely.
- Accepts a lockout signal (115V AC or dry switch contact) to prevent simultaneous operation in multi-tank systems.
- Output relay contacts can activate audible alarms or initiate operation of electromechanical timers or electronic multi-cycle treatment controllers.
- A two step programming sequence provides additional safety against tampering or accidental operation.
- Solid-state components provide minimum wear and easy maintenance.
- Remote inputs are optically isolated for high immunity to electrical interference.

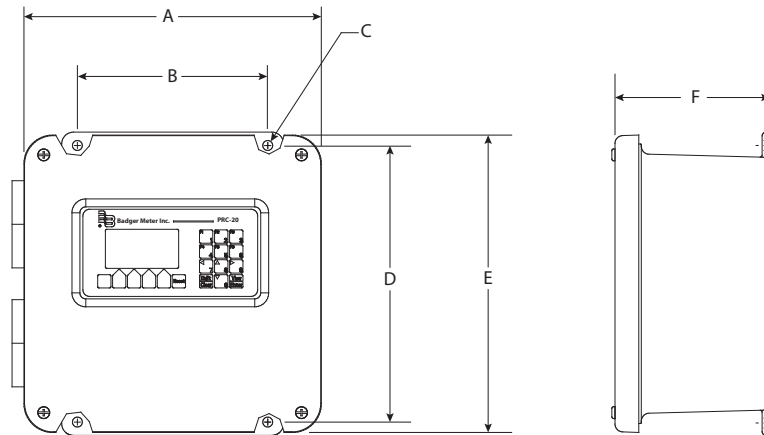
## APPLICATION SCHEME



## SPECIFICATIONS

<b>Power Input</b>	85...265V AC, 47...63 Hz	
<b>Signal Inputs</b>	Transmitter Pulse Input	Dry switch closure or electronic transmitter (current sinking)
	Lockout Signal Input	Dry switch closure/open collector and 115V AC (optically isolated)
	Remote Start and Stop Input	Dry switch closure/open collector (optically isolated)
<b>Output Signal</b>	Form C Contact 250V AC / 30V DC @ 0.5 amp, resistive	
<b>Programmable Operating Modes</b>	Manual	Reset and start on command only
	Automatic	Timed output signal and auto reset at end of batch
<b>Programmable Functions</b>	Output Signal Duration	1...9999 seconds (auto mode)
	Batch Size	Maximum of 99,999,900 gallons, depending on meter size
	115V AC Lockout	NO or NC programmable
<b>Environmental</b>	Operating Temperature	32...122° F (0...50° C)
	Operating Humidity	Up to 85% non-condensing
<b>Display</b>	4-line alphanumeric, LCD	

## DIMENSIONS



A	B	C	D	E	F
9.38 in. (238 mm)	6 in. (152 mm)	4 × Ø.312	8.75 in. (222 mm)	9.56 in. (243 mm)	4.89 in. (124 mm)

## Control. Manage. Optimize.

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[www.badgermeter.com](http://www.badgermeter.com)

The Americas | Badger Meter | 4545 West Brown Deer Rd | PO Box 245036 | Milwaukee, WI 53224-9536 | 800-876-3837 | 414-355-0400  
 México | Badger Meter de las Americas, S.A. de C.V. | Pedro Luis Ogazón N°32 | Esq. Angelina N°24 | Colonia Guadalupe Inn | CP 01050 | México, DF | México | +52-55-5662-0882  
 Europe, Middle East and Africa | Badger Meter Europa GmbH | Nurtlinger Str 76 | 72639 Neuffen | Germany | +49-7025-9208-0  
 Europe, Middle East Branch Office | Badger Meter Europe | PO Box 341442 | Dubai Silicon Oasis, Head Quarter Building, Wing C, Office #C209 | Dubai / UAE | +971-4-371 2503  
 Czech Republic | Badger Meter Czech Republic s.r.o. | Mařikova 2082/26 | 621 00 Brno, Czech Republic | +420-5-41420411  
 Slovakia | Badger Meter Slovakia s.r.o. | Racianska 109/B | 831 02 Bratislava, Slovakia | +421-2-44 63 83 01  
 Asia Pacific | Badger Meter | 80 Marine Parade Rd | 21-06 Parkway Parade | Singapore 449269 | +65-63464836  
 China | Badger Meter | 7-1202 | 99 Hangzhong Road | Minhang District | Shanghai | China 201101 | +86-21-5763 5412