

## GENERAL

The Badger® 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.

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

## 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 AR/t or RTR® transmission system, the PRC-20 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 will remain at "zero"; the relay will remain energized until a signal "STOP" command is received from the front panel or from a remote switch.

## APPLICATIONS

The Badger Model PRC-20 can be used as a stand alone 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, etc.

Typical applications include:

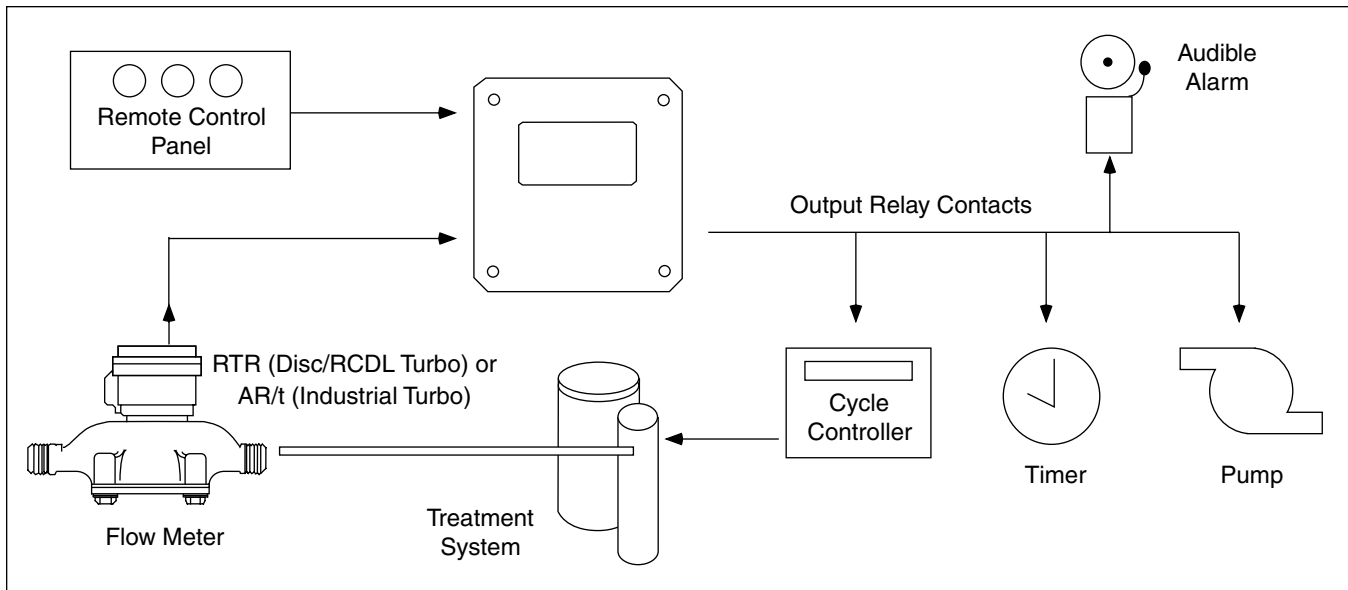
- Commercial and Industrial Water Softening
- Filtration
- De-mineralization
- Reverse Osmosis
- Chemical Feed Systems



## FEATURES

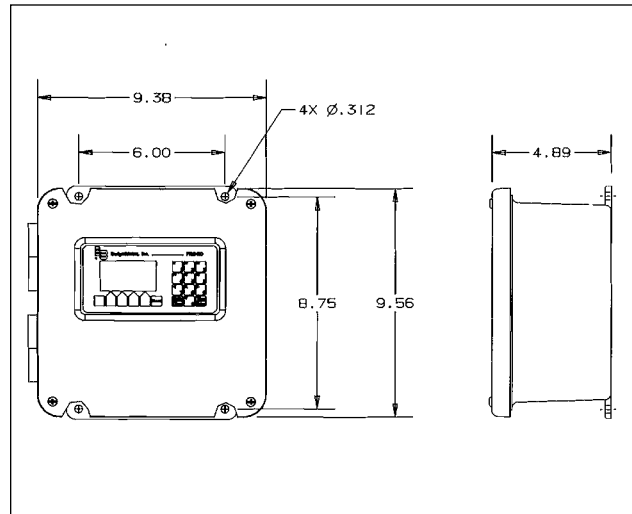
- One controller adapts to any system from 1/2" to 6" flow meters for up to 2000 GPM.
- Enclosure is rated NEMA 4X (water tight and corrosion proof) for harsh industrial environment.
- Start and Stop commands can be controlled remotely.
- Accepts a lockout signal (115 VAC or dry switch contact) to prevent simultaneous operation in multi-tank systems.
- Output relay contacts can activate audible alarms or initiate operation of electro-mechanical timers or electronic multi-cycle treatment controllers.
- A two step programming sequence provides additional safety against tampering or accidental operation.
- Solid state components insure minimum wear and ease of maintenance.
- Remote inputs are optically isolated for high immunity to electrical interference.





**SPECIFICATIONS**

<b>Power Input:</b>	85-265 VAC, 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 115 VAC (Optically-isolated)
· Remote START & STOP Input:	Dry Switch Closure/Open Collector (Optically-isolated)
<b>Output Signal:</b>	Form 'C' Contact, 250 VAC/30 VDC @ 0.5 amp, Resistive
<b>Operating Modes:</b>	Programmable
· Manual:	Reset & Start on command only
· Automatic:	Timed output signal and auto reset at end of batch
<b>Programmable Functions:</b>	
· Output signal duration:	1 to 9999 seconds (Auto Mode)
· Batch size:	Maximum of 99,999,900 gallons, depending on meter size
· 115 VAC lockout:	NO or NC Programmable



<b>Environmental:</b>	
· Operating Temperature:	32° to 122° F (0° to 50° C)
· Operating Humidity:	Up to 85% non-condensing
<b>Display:</b>	Four line alphanumeric LCD

Badger® is a registered trademark of Badger Meter, Inc.  
RTR® is a registered trademark of Badger Meter, Inc.



Please see our website at  
[www.badgermeter.com](http://www.badgermeter.com)  
for specific regions and contacts.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



**BadgerMeter, Inc.**

P.O. Box 245036, Milwaukee, WI 53224-9536  
Telephone: (414) 355-0400 / (877) 243-1010  
Fax: (414) 355-7499 / (866) 613-9305  
[www.badgermeter.com](http://www.badgermeter.com)