Culligan MATRIX SOLUTIONS™

The Culligan Industrial Smart Controller

Reduce Risk and Accelerate Your ROI with the Culligan Smart Controller

For companies using water treatment in their production processes consistency of water quality can reduce process downtime and business risk. Culligan's exclusive advanced electronic capabilities enables companies to operate at improved efficiency and continuously provide high quality water. With the cost effective Smart Controller, which comprises of multiple sensors, our customers can monitor their water treatment equipment performance and maintenance needs, at a single site or across multiple ones 24 hours a day. This may help avert system failure, reduce potential production delays and decrease overall operating costs through predictability of maintenance needed.

Control your Culligan Matrix Solutions™ equipment with a totally integrated Culligan Smart Controller.

Pre-Treatment Solutions

Membrane Solutions

Deionization Solutions

Storage Solutions

Distribution Solutions

Exclusive Culligan Smart Controller Advanced Electronics Include:

- **Historical Operating Data**

  Starting at the time of installation, system operating data is stored and can be accessed to monitor trends over time.

- **Alarm Recognitions**

  The Culligan Smart Controller allows you to monitor and set lower and upper limits on a number of system parameters. As a result you can respond quickly to system variations and promote consistent water quality.

- **Wireless Remote Monitoring Options**

  If the water treatment equipment is in a location that is difficult to access or far from a manager's office, you can use the remote display to monitor the system, up to 200 ft away from the installation.

- **SCADA / Control Room PLC Interface**

  The Culligan Smart Controller can operate as a remote terminal unit (RTU) and can be monitored directly by the Customer's control room SCADA system. Connections are available into RS232, RS485, USB and Modbus communication networks.

- **Telemetry Options**

  With telemetry options, you can connect your Matrix water treatment system via landline or cellular phone to Culligan. This exclusive feature allows us to monitor your system centrally and service your system locally.

- **US Standard and Metric Readings**

  With an easy to program key pad and display, you can program and view your system parameters in either US Standard or Metric units.

Culligan Smart Controller Supports Culligan Exclusive Features:

- **Aqua-Sensor®**

  Culligan's patented digital Aqua-Sensor® for water softeners adjusts to influent water conditions (i.e. water quality, pressure, flow rate etc.) and signals the need for regeneration based on resin bed exhaustion. It also controls the duration of the brine rinse cycle. As a result, you may realize significant salt and water savings which lead to reduced operating costs and accelerated return on investment (ROI).

- **Brine Reclaim**

  Culligan's brine reclaim feature for water softeners can help reduce salt consumption up to 25% or more and reduce discharge to drain leading to additional operating efficiencies. This feature allows Culligan to design a solution around your overall water management/wastewater minimization needs and sustainability goals.
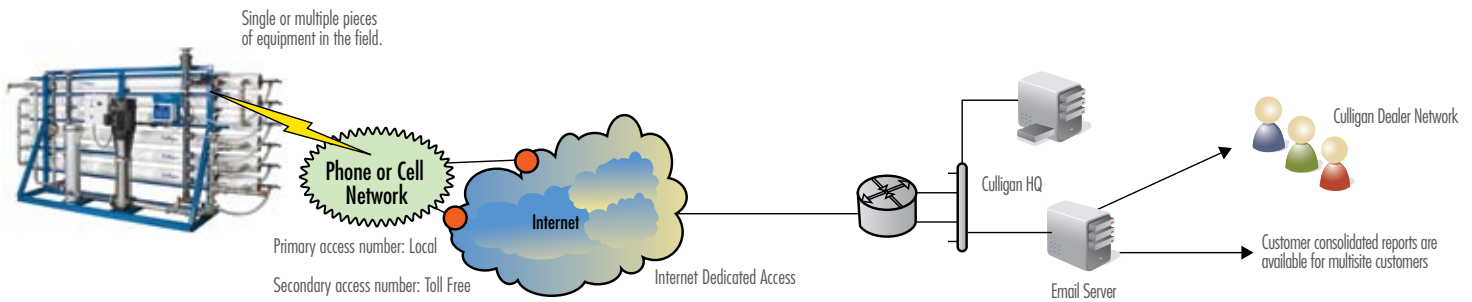
- **Progressive Flow**

  With Culligan's patented progressive flow feature, you can size softeners and filters based on average water usage, which helps reduce capital costs. The feature is best suited for applications requiring intermittent/periodic high flow rates. The Culligan Smart Controller monitors water demand and brings additional tanks online or offline as the flow demand changes.

Single or multiple pieces of equipment in the field.

Phone or Cell Network

Primary access number: Local

Secondary access number: Toll Free

Internet

Internet Dedicated Access

Culligan HQ

Email Server

Culligan Dealer Network

Customer consolidated reports are available for multisite customers

A Customized Communication Level Based on Your Monitoring Needs.

Service Level 1

- The water treatment system calls the Culligan Server once per day.*

- If there is an error, a consolidated report is e-mailed to the Culligan dealership the next morning.

* Available only on Reverse Osmosis, Ultra-Filters and Culligan Store Solutions Vending Units.

Service Level 2

- The water treatment systems calls the Culligan Server once per day.*

- If there is an error, a report is e-mailed immediately to the Culligan dealer and customer.

- A monthly report is generated and sent to the dealership and customer.

Monitoring Options Tailored to Your Culligan Matrix Solutions Equipment.

Pretreatment Solutions

Filters

- Regen cycle number
- Total gallons since new
- Remaining filter life (gallons)
- No remote display signal
- Motor position not found
- Position sensor error
- External alarm input
- Replace Filter/Media

Softeners

- Regen cycle number
- Days since last regeneration
- AVG number of days between regenerations
- Number of salt days remaining
- Salt bridge
- Brineline blockage
- Brine tank overfill
- No remote display signal
- Motor position not found
- Position sensor error
- External alarm input
- Low salt

Membrane Solutions

Reverse Osmosis Systems

- Total feed water since new
- Total product water since new
- Total pump hours
- Most recent product TDS
- Daily average gallons of product water produced
- Feed water temperature
- Most recent RO% recovery
- Most recent RO% rejection
- Most recent pump discharge pressure
- Most recent membrane pressure drop
- Most recent RO membrane normalization data
- Most recent temperature
- Any current error flags

Ultra-filtration Systems

- Average daily usage
- Total gallons since new
- Peak flow rate
- Membrane production

Polishing Solutions

PEDI

- Current flow rate
- Daily usage volume
- Average daily usage
- Total gallons since new
- External filter capacity
- Two auxiliary switches (i.e. monitor TDS alarm, tank switch over etc.

CEDI

- Product quality
- Product flow rate
- Reject flow rate
- Feed water temperature

The Culligan Smart Controller can also monitor other equipment, signals and alarms

- Flow rates
- Pressure
- TDS/water quality
- Analog voltage input signals
- Dry contact inputs

The above monitoring options are standard. If you are interested in other monitoring options, please contact Culligan.

A Global Monitoring Solution with Customized Local Service.

Culligan Corporate Headquarters

Argentina
Belgium
Canada
China
Dubai

France
Italy
Spain
UK
USA

50+ Canadian Culligan Dealers

600+ U.S. Culligan Dealers

Over 800 Culligan Dealers in more than 90 countries

Algeria
Angola
Argentina
Australia
Austria
Bahamas
Belgium
Belize
Bermuda
Cambodia
Canada
China
Costa Rica

Croatia
Cyprus
Czech Republic
Dubai
Ecuador
Egypt
El Salvador
Estonia
Finland
France
Germany
Greece
Guam

Guatemala
Guine Bissau
Haiti
Honduras
Hong Kong
Hungary
Indonesia
Ireland
Israel
Italy
Jamaica
Japan
Jordan

Kenya
Korea
Kuwait
Laos
Lativa
Lebanon
Lithuania
Malta
Mexico
Morocco
Mozambique
New Zealand
Nigeria

Norway
Oman
Pakistan
Panama
Peru
Philippines
Poland
Portugal
Puerto Rico
Qatar
Romania
Saudi Arabia
Serbia

Singapore
Slovak Republic
Slovenia
South Africa
Spain
Sri Lanka
St. Maarten NA
St. Thomas
Sweden
Switzerland
Tahiti
Taiwan
Tanzania

Thailand
Trinidad
Tunisia
Turkey
Turkish Republic
  of Northern
  Cyprus
UK
Ukraine
USA
Venezuela
Vietnam

Finally, an end-to-end solution from a single source.

Place your industrial and commercial water treatment needs in the hands of a global leader.

For over 70 years, Culligan has made better water. Our global network, comprised of 800+ dealers and international licensees in over 90 countries, is dedicated to addressing your water-related problems. As a worldwide leader in water treatment, our sales representatives and service technicians are familiar with the local water conditions in your area. Being global and local position us to deliver customized solutions to commercial and industrial water issues that affect your business and your bottom line.

www.culliganmatrixsolutions.com • 866-787-4293