Water Management

Water & Irrigation Control systems

Take Control!
Mottech Water Control & Management

Mottech, a member of the MTI Group, is a worldwide master distributor of Motorola’s innovative, proven and reliable IRRInet platform. Mottech provides comprehensive, professional irrigation and water control systems for agricultural irrigation, municipal turf & landscape irrigation, and water distribution applications.

Our IRRInet systems rely on Motorola’s unparalleled expertise to provide the robust communications infrastructure essential for remote management. Using a wide range of communication methods such as private radio, cellular, landline, fiber optic and Internet, Mottech can offer a communications solution for virtually any site, in any location. Mottech designs and implements optimized water control & management systems that offer our customers dramatic savings in water, energy and personnel costs – with unsurpassed functionality and fast ROI.

Our international network of subsidiaries, local offices and regional distributors provides ongoing support and service to our customers worldwide.

The MTI Group

Established in 1970 MTI is a publicly traded company. MTI specializes in wireless communication with an emphasis on RF & Microwave providing solutions for civilian and military markets. MTI operates extensive international operations with offices & production lines in Israel, USA, Australia, South Africa, Russia and India.

Platform

Motorola Solutions is a leading supplier of computerized irrigation and water control systems. Motorola has over 35 years of experience in developing, manufacturing, and installing computerized irrigation and water control systems worldwide.

In order to maintain its global leadership in the control and communication markets, Motorola and Mottech are constantly developing new and forward-looking products and systems while maintaining full compatibility with previous-generation products. Motorola operates to the highest standards in quality (ISO9001:2000), health and safety (OHSAS 18001), and environmental management (ISO 14001:2004) standards.
The Motorola System

Comprehensive, advanced and professional irrigation and water control management system

The Motorola IRRInet System is a cutting-edge solution for remote control and monitoring for irrigation and water applications. The system is designed to meet the rigorous demands of irrigation and water management applications in three main market segments: agricultural irrigation, turf & landscape irrigation, and water supply.

It provides:

- Dynamic, accurate and automatic allocation of water and irrigation quantities
- A reliable and proven system for both small- and large-scale systems
- Secure access for authorized personnel only
- Customized scheduled reports
- Real time alerts
- A variety of options to operate and monitor the system from anywhere, at any time

System Layout

[Diagram showing system layout with various components and connectivity options]
Mottech Edge

Motorola - World leader in communication solutions
Motorola’s IRRInet system is recognized worldwide as one of the leading systems available in the market today, offering advanced, forward-thinking, and robust irrigation controller solutions. Motorola’s stringent standards ensure that Motorola controllers continue to work year after year even in the harshest conditions.

Complex, modular, large-scale projects
The IRRInet platform provides modular management systems for any deployment size – from small and medium systems to complex, large-scale projects that control tens of thousands of components (valves, water meters, sensors, pumps, etc.).

Integrated solutions
We are proud of our unique ability to build water supply and irrigation control systems in which each element (valves, water meters, sensors, pumps, etc.) is fully and continuously synchronized with all the other elements.

Remote sites with no communication infrastructure
Motorola systems use advanced communication networks to achieve effective data transfer over a wide variety of communication infrastructures. Using a range of communication technologies (radio, cellular, computer, line, etc.), Mottech’s systems link even the most remote sites to the network using sophisticated networking features such as data store & forward. Motorola’s advanced capabilities in communication technologies allow our clients to establish a communication network even where no communication infrastructure is available.

Multi-level management & control
Motorola systems are designed for applications with numerous simultaneous users and multiple user types. The system allows for access to information to be restricted to authorized and authenticated users through flexible multi-level password authorization control.

Dramatic and significant water saving
Motorola’s intelligent, cost-efficient irrigation systems use innovative water leakage detection methods and other advanced techniques to calculate and automatically change irrigation water quantities as required. Our systems dramatically reduce water and energy consumption while optimizing manpower and other resources.
Agricultural Irrigation

Specifically configured to meet the needs of farmers, growers and agricultural organizations, this robust and reliable irrigation and water supply control system enables monitoring and control over an unlimited number of field valves, water meters, water pumps, fertilizers, sensors, etc.

Features

- Remote and accurate irrigation
- Reduced water, time and energy
- Increased yield
- User-friendly management software
- Easy maintenance
- Ability to expand the system as required
- Real-time information on irrigation times, flow values, water quantities as well as alerts and reporting
- Complete synchronization between water supply and irrigation systems

Monitoring & Control

- Valves
- Water meters
- Weather station data
- Fertilizer
- External device
- Humidity sensors
- Water pumps
- Water pressure
- Water quality
- Wind speed
- Pivot center
- External device

Our customers include:

- ORANGE CO., USA
- Fresh Choice, Australia
- Lipman Quality Farms, USA
- ZZ2, South Africa
- Agroksasa, Peru

Large scale and remote irrigation systems
Open fields, vineyards and plantations
Irrigation solutions for farmers, growers and agricultural organizations
Mottech solutions improve turf and landscape irrigation management and control. Our systems ensure beautiful gardens and green parks while saving water, energy and manpower. The Mottech system enables accurate irrigation, rapid detection of water leakages, water budget control and advanced scheduled reporting. Designed to manage thousands of valves, water meters, sensors and head controls, the system can also receive data from third-party sources such as PLC and weather stations and automatically adjusting water quantity according to the daily ET.

Features

- Suitable for municipal parks & gardens, sports arenas, road medians, and commercial areas
- Real-time control & monitoring system
- Reduction of water, energy, manpower expenses
- Fast ROI
- Easy and efficient operation via desktop & mobile phone
- Advanced data handling, trend analysis & reports
- Connectivity with external sensors and devices

Monitoring & Control

- Valves
- Water meters
- Weather station data
- Humidity sensors
- Wind speed
- Water pumps
- Water pressure
- Lighting

Our customers include:

- City of Plano, Texas, USA
- City of Calgary, Canada
- City of Tel Aviv, Israel
- City of Fiorano Modenese, Italy
- City of Melbourne, Australia
Rural municipalities and water corporations can automatically control and synchronize multiple water sources in response to changing water demands – efficiently and in real-time.

The IRRInet platform is the state-of-the-art solution for remote monitoring and control of water tasks. Its robust, built-in applications for water management systems, along with its distributed logic and control capabilities, means that each field controller can be systematically and remotely managed via the main control center.

The Mottech solution lets municipalities and water corporations achieve constant flow control aligned with changing demands, while monitoring water lines, reservoir levels and water quality.

**Features**

- Total system solution for any scale operations
- Remote and automatic water system monitoring and control
- Ensures constant flow rate control – at the right flow and pressure values, at the right time
- Water supply and irrigation system synchronization
- Water line, reservoir level and water quality monitoring

**Our customers include:**

- Beta Complejo Agroindustrial, Peru
- Sidra Catina, Italy
- Comunidad de regantes de sagunto, Spain
- Consorzio Bonifica, Agrigento, Italy
- Afikey Emek Hefer, Israel
**System Components**

**Management & Control**

**ICC PRO – Irrigation Control Center software**

ICC PRO serves as a water and irrigation management center and is an integral part of the Motorola IRRInet system. The ICC PRO enables advanced control and monitoring using tables, graphs, reports, Google maps and more.

The ICC PRO software can be used on:
- ICC PRO Desktop: private server configuration or cloud hosting
- ICC PRO Browser: operate and monitor your system from anywhere at any time via your mobile phone

**Controllers**

**IRRInet Ace**

Provides versatile, scalable solutions with a wide range of I/O modules, PLC interfaces and remote communication capabilities.

**IRRInet M**

A powerful and intelligent RTU that supports both digital and analog I/Os as well as diverse remote communication capabilities.

**Piccolo XR**

Piccolo XR is a compact, 2-way, low-power radio for communication distances of up to 2 km. With very low energy consumption, Piccolo XR supports data store & forward.

**Piccolo RTU**

This top-of-the-line S.C communication solution is connected in a series on a standard cable for a distance of up to 10 km. The Piccolo RTU activates 1 latched solenoid and receives 2 digital inputs.

**Decoder System**

The Mottech decoder system combines a 2-Wire Decoder and Solenoid in a single product that connects easily into most valves. It is ideal both for new irrigation deployments as well as retrofits.