mobitech®
wireless solution

IRRIGATION AUTOMATION

Complete
Irrigation & Fertilizer management system

Product Catalogue 2023

What is Smart Farming?

"Smart farming" is a new idea that refers to farm management using modern information and communication technology like drones, IoT, robots, and AI to improve the quality and quantity of products while reducing the amount of human labour necessary for production.

Farmers use an army of tools to monitor field conditions and make critical decisions for the entire farm or a single crop without ever setting foot in the field. The Internet of Things (IoT) is the driving force behind intelligent farming. It links machines and sensors installed on farms to automate farming activities and make them data-driven.

How to Achieve Precise Irrigation?

Precision irrigation is a one-of-a-kind sustainable agriculture strategy that delivers water and nutrients to the plant at the correct time and location, in precisely calculated dosages, to offer ideal growing conditions. Precision irrigation benefits everyone, from plants to the earth. Water is a costly natural resource. When farmers find it more challenging to get water for field irrigation, it doesn't make sense to continue with traditional irrigation systems that wet the earth around the plant without benefitting the crop grown. Water must be sent directly to the plant's root, so it's used only to nurture the plant.

Save More on Water and Electricity

We can help you save up to 35% on water and 15% on electricity. Farmers face drought, salination, evaporation, groundwater depletion, and difficulty accessing water sources. Precise irrigation assists you in addressing these issues by modifying how you use water. As a result, produce greater and better harvests while using less water. Precision irrigation can significantly boost the economic return on farm produce while lowering power use. Water and power savings are related. When you save water, you save electricity and the money that would have been spent on that water and electricity. This partnership primarily helps you as a farmer. We know that, among other things, you want to keep costs as low as possible.

About Mobitech Wireless Solution and How We Help the Farmers

Mobitech wireless solution private limited uses cutting-edge infrastructure to benefit farmers and all humanity. Established in 2010, we offer sustainable productivity and innovative irrigation solutions. We provide a wide range of services to farmers in southern India, including digital farming solutions, greenhouses, and micro and community irrigation. In addition, we give IoT-based services like sensor-based and weather-based agriculture.

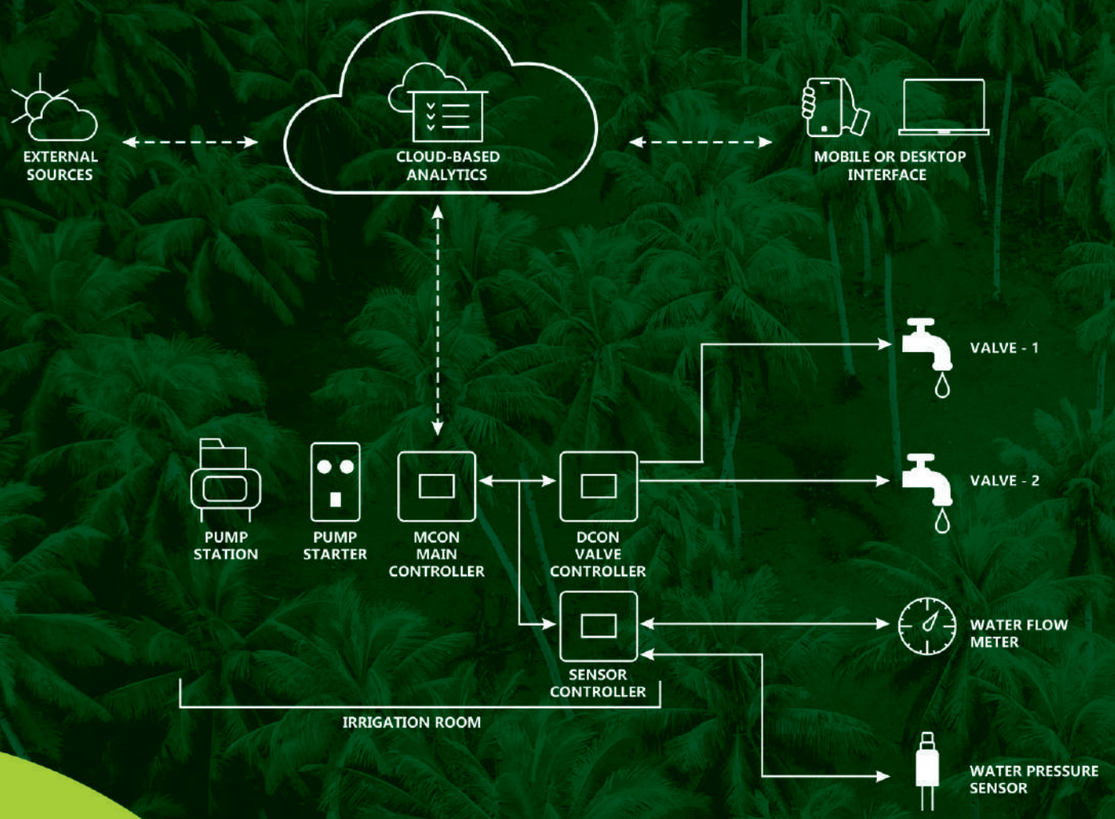
We are headquartered in **Perundurai, Erode District of Tamilnadu, India** (Pincode: 638 052), and have branches in Pollachi, Theni, Thirunelveli, Bangalore, and Maharashtra. We employ over 85 skilled individuals and have provided detailed agronomic designs, after-sales support, and agricultural extension services to make farmers profitable.

What is the Return on Investment?

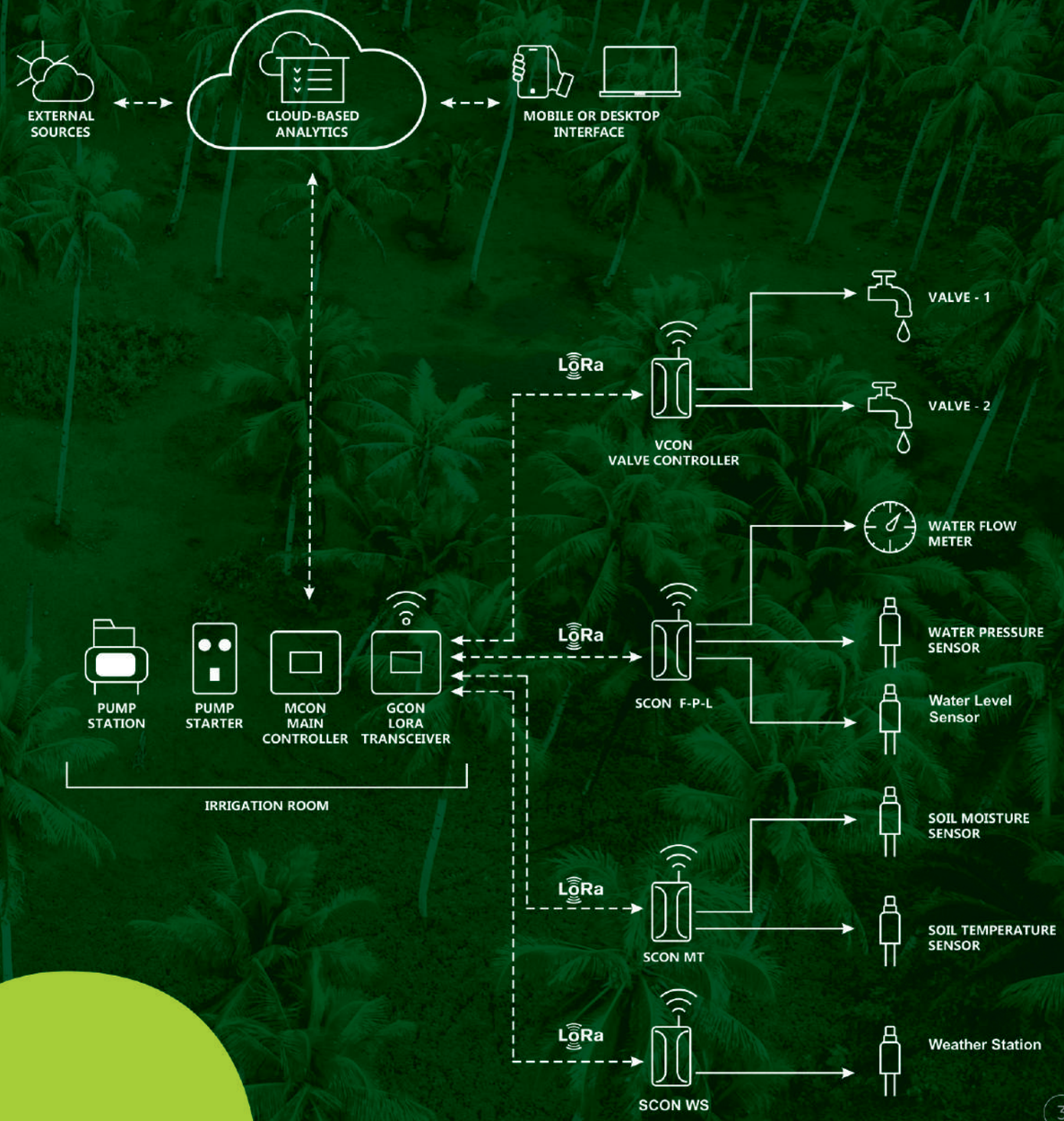
One of the most common issues we hear from farmers when discussing precision technology purchases is cost and ROI. Precision agricultural technologies provide significantly more value than they cost. It saves you labour costs. If you can save Rs. 10,000 ($125USD) on labour per month, your savings can mount up to four to five lakhs Rupees ($3500 - $5000USD) within three to four years.

Mobitech Wireless Solution Private Limited provides several alternatives that do not require a sizeable out-of-pocket investment. Investing in agriculture's future means investing in the future of your farm. Think of it as a strategy to keep your business healthy and growing in an everchanging world. Precision farming provides the power you need to reduce variable input costs and become a more efficient enterprise.

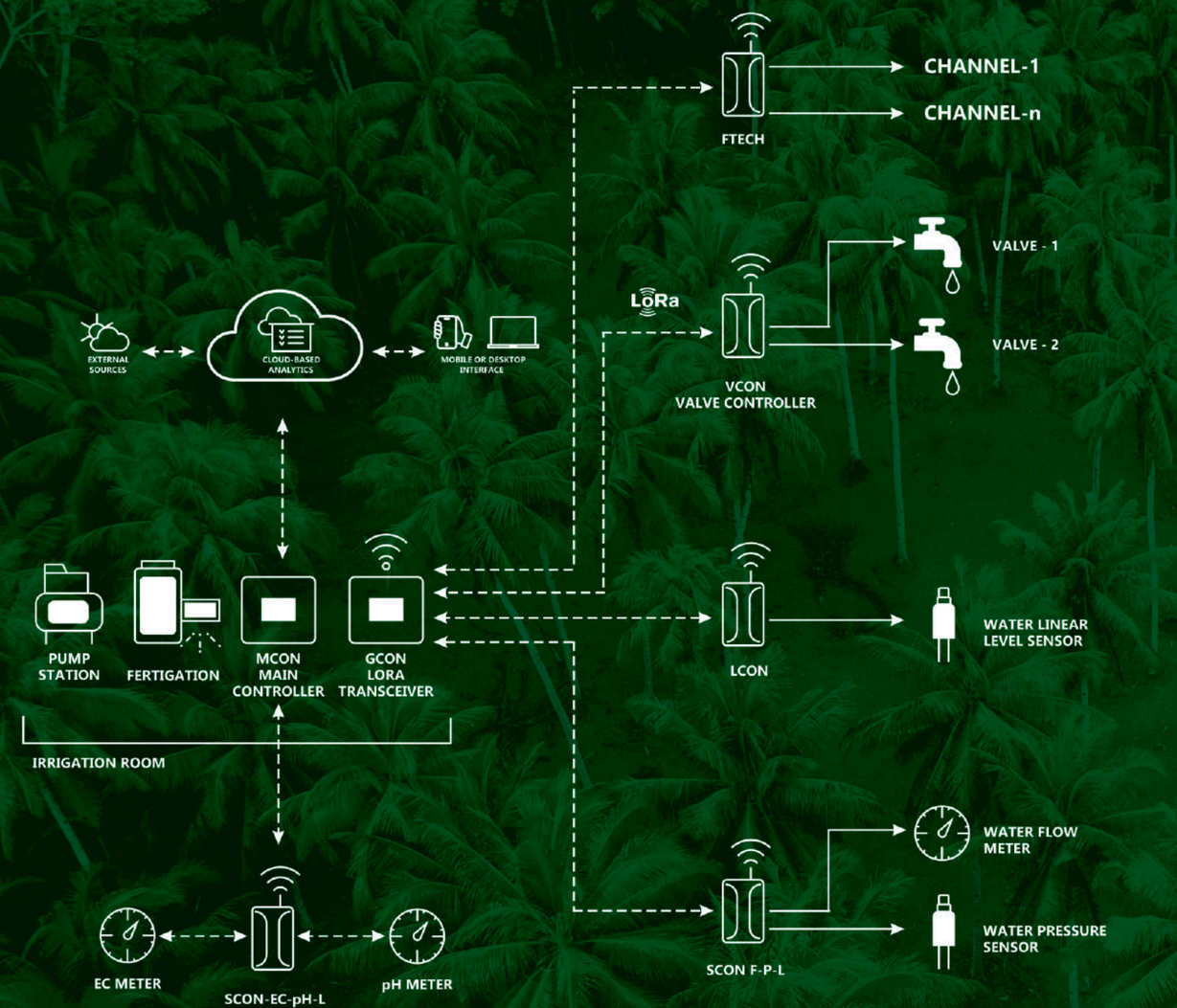
WIRED IRRIGATION
AUTOMATION SYSTEM



WIRELESS IRRIGATION
AUTOMATION SYSTEM



WIRELESS FERTIGATION AUTOMATION SYSTEM



5 REASONS WHY

MOBITECH IS THE BIGGEST INNOVATION IN IRRIGATION & FERTIGATION SINCE 2010

ALL IN ONE

Mobitech is the first irrigation and fertigation management system to integrate real-time monitoring, smart analysis, and control - in one closed-loop, mobile platform.

DYNAMIC MECHANISAM

Mobitech integrates Dynamic Mechanisam that follows your crop stages and gives real-time irrigation and fertigation recommendations.

USER-FRIENDLY INTERFACE

Mobitech interface was developed with real farmers in mind. It is designed to be simple, friendly and cover all bases.

CLOUD TECHNOLOGY

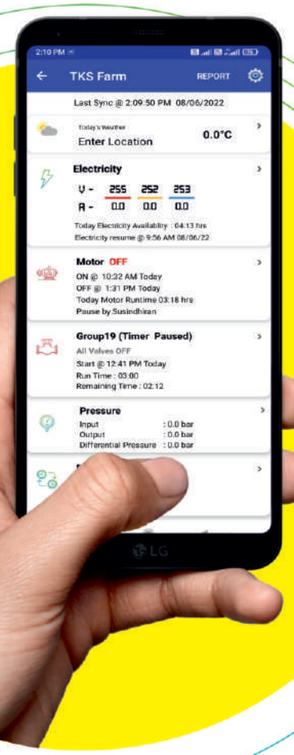
Cloud-based software enables remote support and upgrade SW-Firmware and remote access, support and updates.

SMART IRRIGATION FOR EVERYONE

From corporate farms to small holders, Mobitech has a solution to fit the needs, budget and skills of all farmers. It is also modular so you can upgrade as you grow.

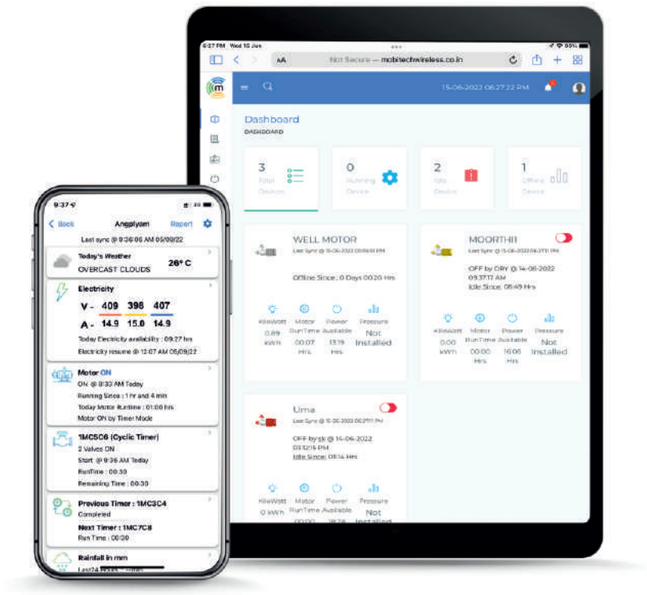
DASH BOARD

It provides information such as irrigation alert, sensor data and reports. It's available in mobile device and desktop browser.



IRRIGATION AND FERTIGATION CONTROL

User can Create multiple programs for irrigation & fertigation through our "DCON" application. Its flexible to set time based and volume based.



MONITORING AND ANALYSIS

Monitor and analyse field data's like water level, moisture level, pH level and pressure level anywhere using internet.

MCON MASTER CONTROL UNIT

It's brain of automation. It works based on user data. It control's solenoid valves & sensors.etc.,

MCON 4G/wifi/5G

*Check for availability

BENEFITS AND FEATURES

- Suitable for farm sizes from 2 acres to 200 acres.
- Intelligent algorithm helps to feed the water to crops/trees whenever & wherever need.
- Automatic backwash mode helps to prevent filler choke
- This IoT device updates itself through FOTA (Firmware over the air) technology.
- User interface available for Android, ios & Desktop

SPECIFICATIONS

Input voltage : 190 – 460V AC	Default CT coil : 30A	Battery Voltage : 3.7V
Fuse rating : 250mA	External CT coil range : upto 500A	Antenna : External

LET'S MOVE TOWARDS PRECISE FARMING & SAVE WATER FOR FUTURE

DCON WIRED VALVE CONTROLLER

It receives data from master control unit and activates the irrigation valves. It communicates through wired mode. It controls maximum 999 valves simultaneously.

DCON ACN 5

It controls 5 irrigation solenoid valves

DCON ACN 10

It controls 10 irrigation solenoid valves.
It is scalable up to 30 irrigation solenoid valves.

BENEFITS AND FEATURES

- It is easy to install
- Economically feasible and cost effective
- Ideal for small open fields
- Valve feedback sensing

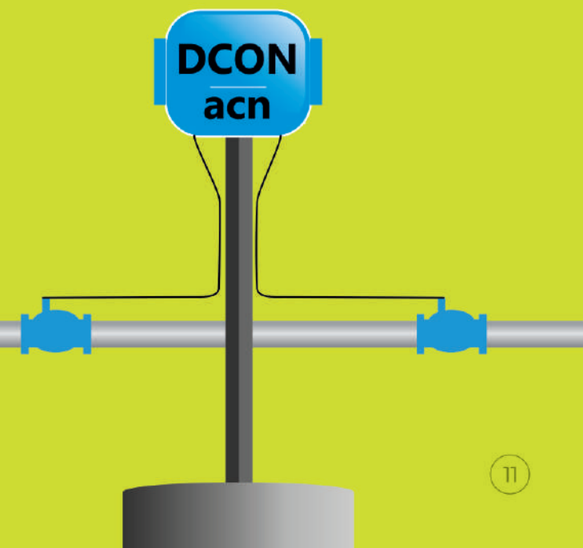
SPECIFICATIONS

Input voltage : 230V AC

Current consumption : 500mA

Output : 24V AC

Fuse Protection



GCON GATEWAY CONTROLLER

It acts as bridge (transmit and receive) between MCON (master control unit) and field remote terminal units.

BENEFITS AND FEATURES

- It helps to transmit command from main controller to field remote terminal units.
- Serves mainly for the external data input (flow, pressure and temperature) into the system.
- It has wireless range upto 2Kms.

SPECIFICATIONS

Node type : DC

Input voltage rating : 8 - 18V DC

Communication type : single channel gateway

Communication interface : LoRa/CAN

Antenna : External

VCON VALVE CONTROL UNIT

It receives data from master control unit and activates the irrigation valves.

VCON 2

It Receives data from Master control unit and Controls upto 2 Solenoid DC Latch Valves with Wireless.

VCON 6

It Receives data from Master control unit and Controls up to 6 Solenoid DC Latch Valves simultaneously through Wireless

BENEFITS AND FEATURES

- It has in-built valve on/off sense.
- Automatically switches off while error occurs.
- In-built battery charge control and low battery preventer

SPECIFICATIONS

Node type : DC

Number of valves can be controlled : 2

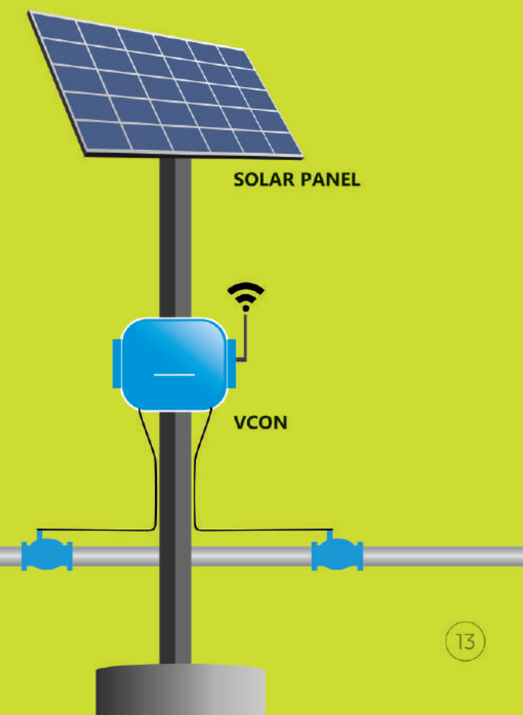
Latch coil rating : 9V DC

Battery backup : 48 hours

Communication interface : LoRa

Battery rating : 3.7V

Solar panel rating : 6V/5W



SCON SENSOR CONTROL UNIT

It collects the data (water flow, pressure, temperature and soil moisture) and transmit to **MCON** (master control unit) through wireless.

SCON FP-L FLOW & PRESSURE

It integrates with flow meter and pressure sensor. It sends the data to **MCON** (main control unit) .

SCON FP-L

BENEFITS AND FEATURES

- Collects water flow meter data & pressure sensor data and transmit the same to MCON.
- Low energy consumption for long time intensive working.

TECHNICAL SPECIFICATIONS

Node type : AC

Number of pressure sensor can be connected : 2

Number of flow meters can be connected : 2

Communication interface : LoRa

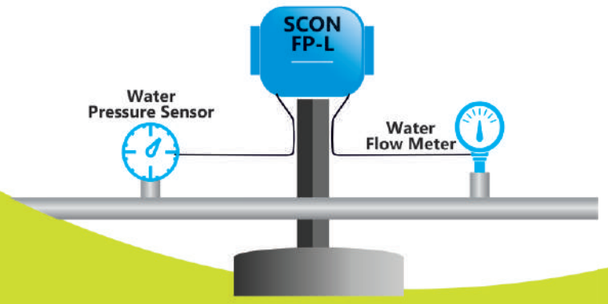
Input voltage : 230V AC

Pressure sensor input rating : 12V DC

Pressure sensor interface type : 4 – 20 mA

Flow meter input power rating : 230V AC

Flow meter interface type : RS232



SCON MT-L MOISTURE & TEMPERATURE

It helps to collect soil moisture, atmospheric temperature and soil temperature. Collected data will be transmitted to **MCON** (Master Control Unit).

BENEFITS AND FEATURES

- It has inbuilt battery charge control and low battery preventer.
- Easy to install.

SCON MT-L

TECHNICAL SPECIFICATIONS

Node type : DC

High precision soil moisture sensor : 3

Atmospheric temperature sensor : 1

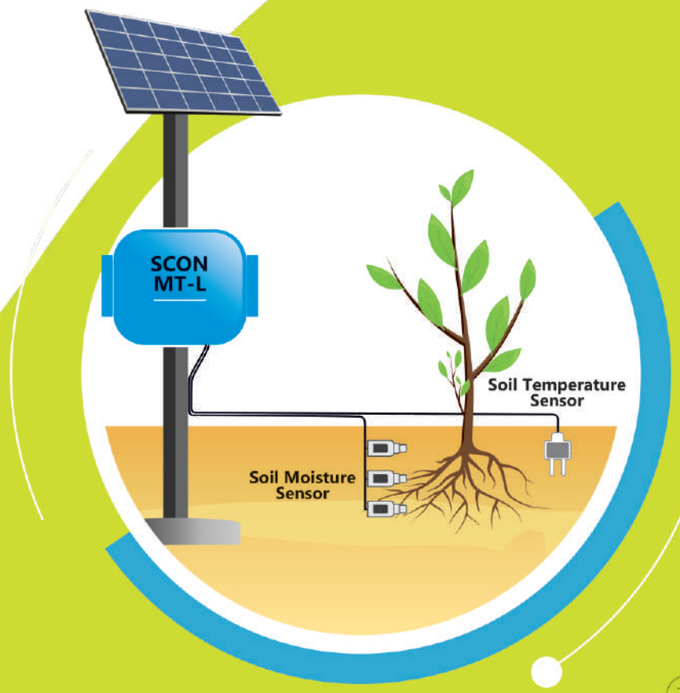
Soil temperature sensor : 1

Solar panel rating :6V/5W

Battery rating : 3.7V

Battery backup : 48 hours

Communication interface : LoRa



SCON EC-PH-L EC & pH

SCON-EC-pH-L collects EC and pH value. Collected data will be send to **MCON** (Master Control Unit).

BENEFITS AND FEATURES

- Electrical conductivity and pH value will be monitored continuously and push data to MCON (Main Control Unit)

TECHNICAL SPECIFICATIONS

Node types : AC

Input voltage rating : 230V AC

Total no.of pH meter : 1

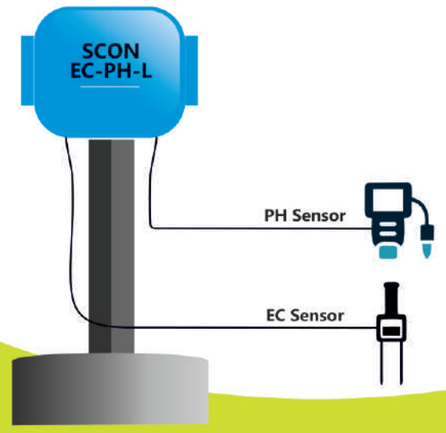
pH meter input rating : 230V AC

pH meter interface type : 4 –20 mA

Total No. Of EC meter : 1

EC meter Input rating : 230V AC

Communication interface : LoRa



LCON-L WATER LEVEL

It collects water level data and send to **MCON** (Master Control Unit)

BENEFITS AND FEATURES

- It helps to know the exact level of water in tank / sump/well
- It shows the real time data of water level.

TECHNICAL SPECIFICATIONS

Node type : DC

Input voltage rating : 8 - 18V DC

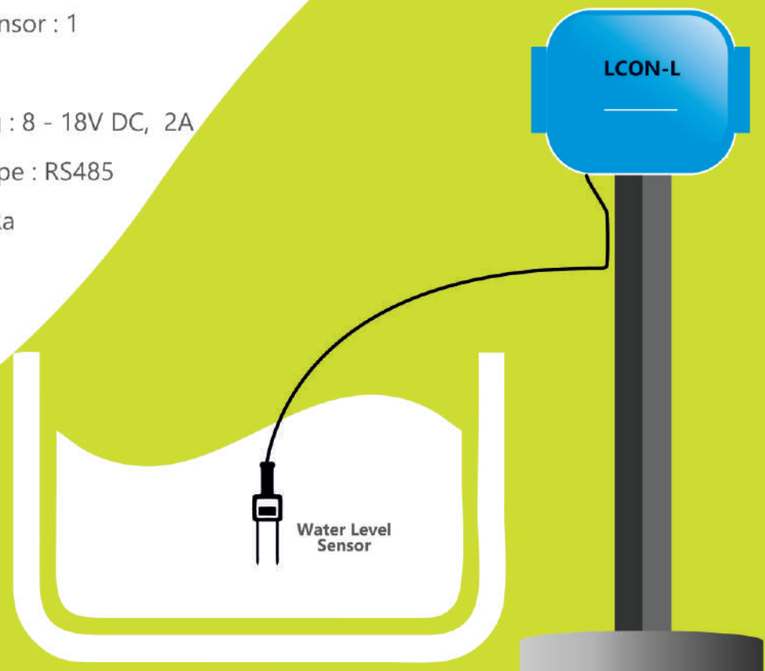
Total number of linear level sensor : 1

Sensor type : pressure

Linear level sensor input rating : 8 - 18V DC, 2A

Linear level sensor interface type : RS485

Communication interface : LoRa



SOLENOID VALVES

It's an electrically controlled valve and fast acting. There are two types available, one is AC another one is DC.

Baccara 2" valve
Coil voltage : 24V AC &
9V DC Latch

Baccara 3" valve
Coil voltage : 24V AC &
9V DC Latch

Bermad 4" valve
Coil voltage : 24V AC &
9V DC Latch

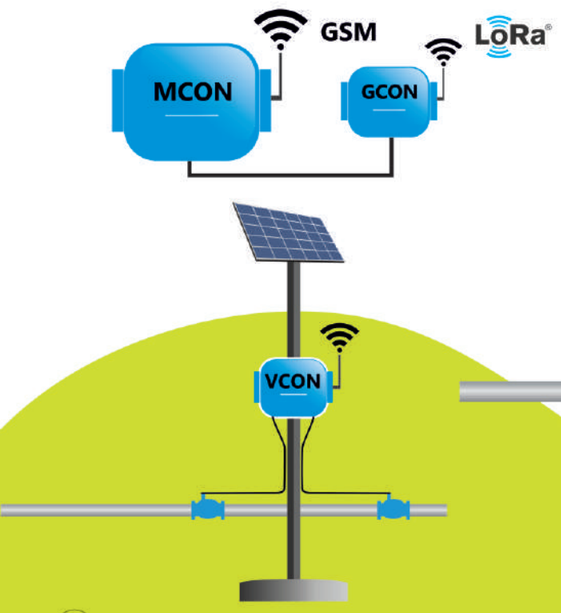
WIRELESS (DC)

Type : DC

Sizes available : 2", 3" and 4"

Pressure range : 1 bar to 10 bar

Coil Voltage : 9V DC



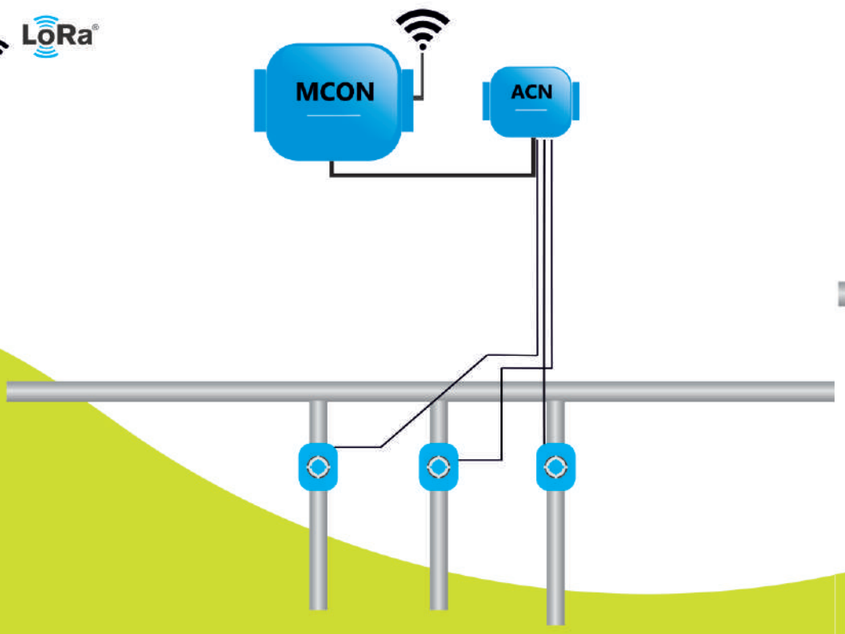
WIRED (AC)

Type : AC

Sizes available : 2", 3" and 4"

Pressure range : 1 bar to 10 bar

Coil Voltage :24V AC



AUTOMATIC BACK WASH VALVE

It is a compact 3 port valve in a T configuration. It's double chambered hydraulically operated and actuated. Designed for automatic backwash of filtration system.

BENEFITS AND FEATURES

- Its highly durable
- It can be connect with automation. Based on differential pressure it cleans filters.
- Smoothly changes flow of direction.
- It's simple to install.

Bermad Backwash 2" & 3"Valve
Coil voltage : 24V AC

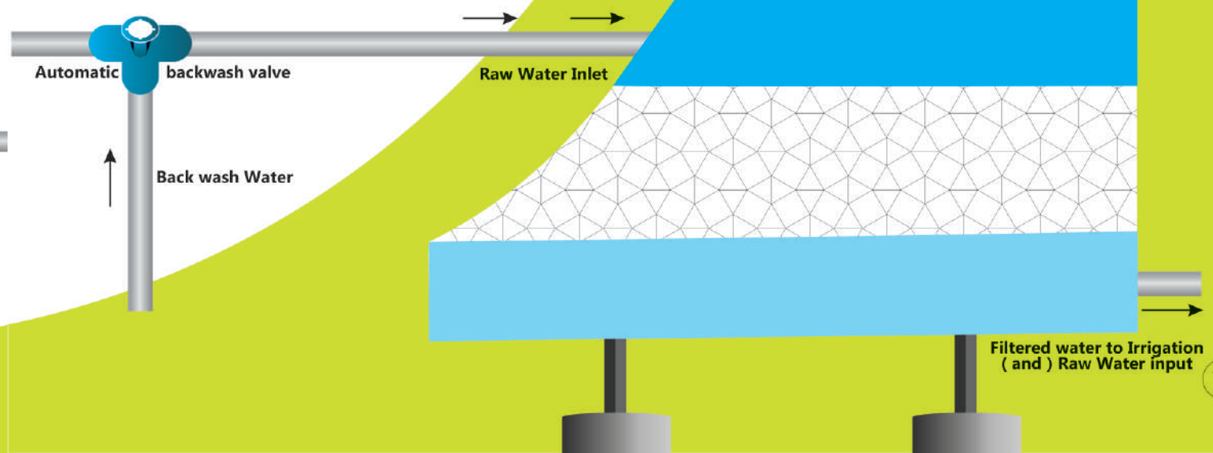
TECHNICAL SPECIFICATIONS

Operating pressure : 1 bar to 10 bar

External operating pressure : 85- 100%

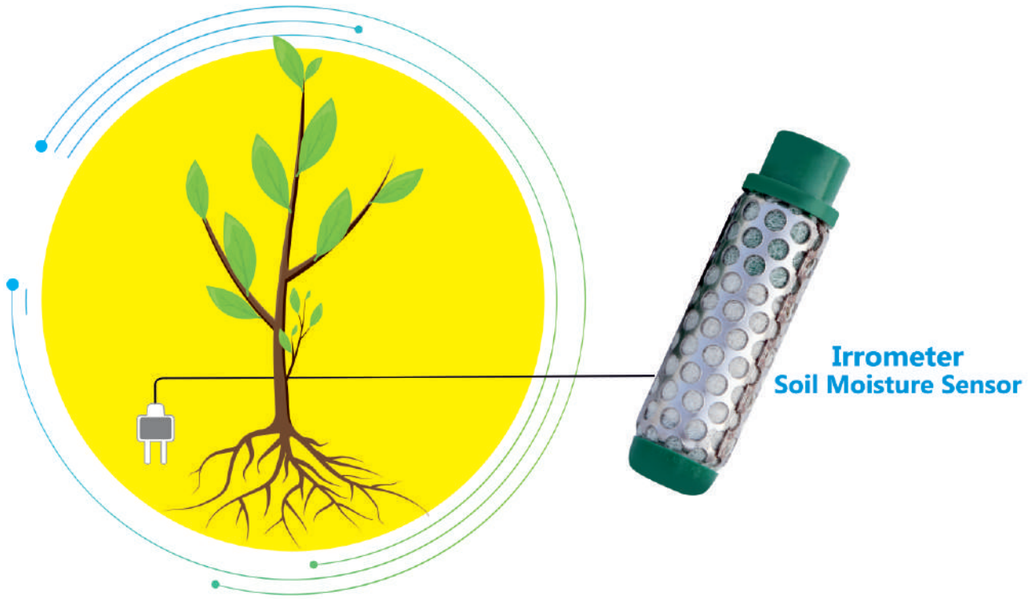
End connections : Grooved

Coil voltage : 24V AC



SOIL MOISTURE SENSOR

It is a solid state electrical resistance sensing device that is used to measure soil water tension. As the tension changes with water content, the resistance changes as well.



Irrometer
Soil Moisture Sensor

BENEFITS AND FEATURES

- High durable stainless steel enclosure.
- It will not dissolve in soil
- Not affected by freezing temperature
- Mainly useful to achieve precise irrigation

TECHNICAL SPECIFICATIONS

Materials : ABS plastic caps with stainless steel body, over a hydrophilic fabric covered granular matrix.

Dimension : Dia : 22mm, Len : 83mm

AUTOMATIC QUICK PRESSURE RELIEF VALVE

It is a hydraulically operated. It allows excess pressure water to by-pass.

Automatic Quick Pressure
Relief Valve

BENEFITS AND FEATURES

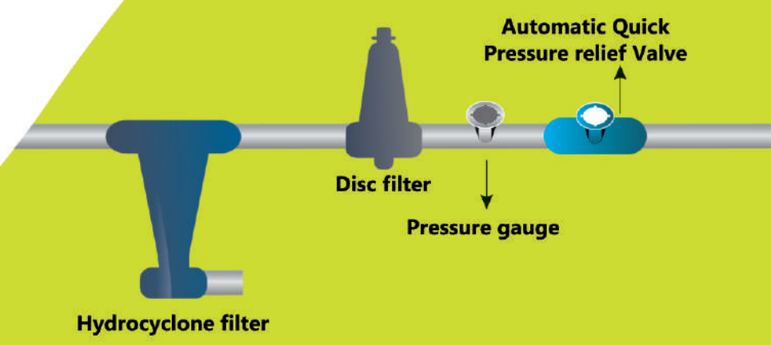
- It helps to prevent water line from damage due to high pressure
- Indirectly it helps for even wetting

TECHNICAL SPECIFICATIONS

Port Size : 2" to 4"

Voltage : No Solenoid

Pressure range : 0.5 to 4 bar



WATER FLOW METER

It helps to achieve volume based irrigation. We use electromagnetic flow meter and Turbine type flow meter.

Electromagnetic Flow Meter

Turbine Type Flow Meter

BENEFITS AND FEATURES

- It is highly durable
- It helps to measure quantity of water pumped
- Easy Maintenance

TECHNICAL SPECIFICATIONS

Accuracy : ± .0.5%

Repeatability : ± 0.1%

Flow range : 0.3 to 10m/sce

Pipe Size: 19mm to 300mm

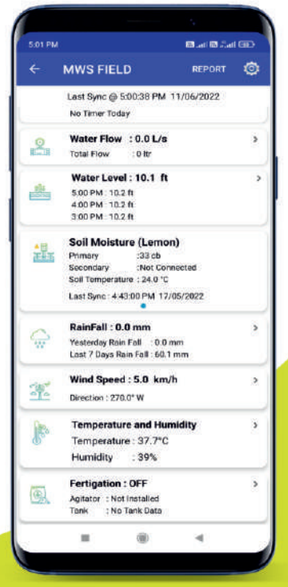
Communication : RS232

WEATHER STATION

It collects the data (rainfall, humidity, temperature, pressure and wind direction) from the field and transmit to MCON (Master Control Unit).

BENEFITS AND FEATURES

- Suitable for all farm sizes
- It measures atmospheric pressure and temperature.
- It measures humidity, rainfall speed & wind direction
- It also operate through Battery.

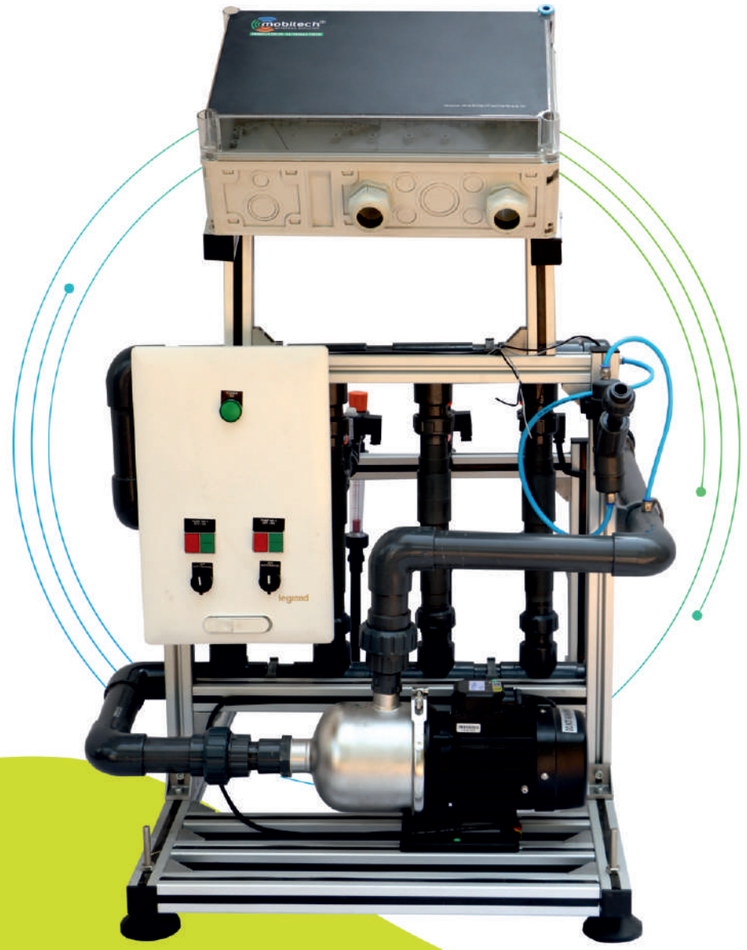


FERTIGATION AUTOMATION

FERTILIZER + IRRIGATION = FERTIGATION

FERTILINER BASIC

Fertigation is the process of delivering plants nutrients and water to produce a quality crop with higher yields. Employing an automated fertigation system can help grows make informed decisions that can significantly impact water and nutrient usage as well as contribute to fertiliner reducing disease.



BENEFITS AND FEATURES

- Accurate and precise build for precise application of fertilizer through irrigation without wastage.
- Homogenous mixing of fertilizers in the irrigation water as per the quantity designated.
- This automated fertigation is suitable for organic and inorganic liquid fertilizers.
- Yield will be increased by 15% to 20 %

TECHNICAL SPECIFICATIONS

Input Voltage : 230V AC / 440V AC

No of Injectors : One to Six (Based on order)

Injector capacity : 250 to 1000 lph (Can be choose according to requirement)

Mainline flow range : 5 to 60m^3/ hour

No of tanks : 1 to 4 (optional)

FERTILINER AUTO PH

BENEFITS AND FEATURES

- Always injects a uniform quantity of nutrients while performing perfect pH control
- Easy intergration into existing irrigation systems
- Suitable for organic and inorganic liquid fertilizers.
- Yield will be increased by 15% to 20%

TECHNICAL SPECIFICATIONS

Input Voltage : 230V AC / 440V AC

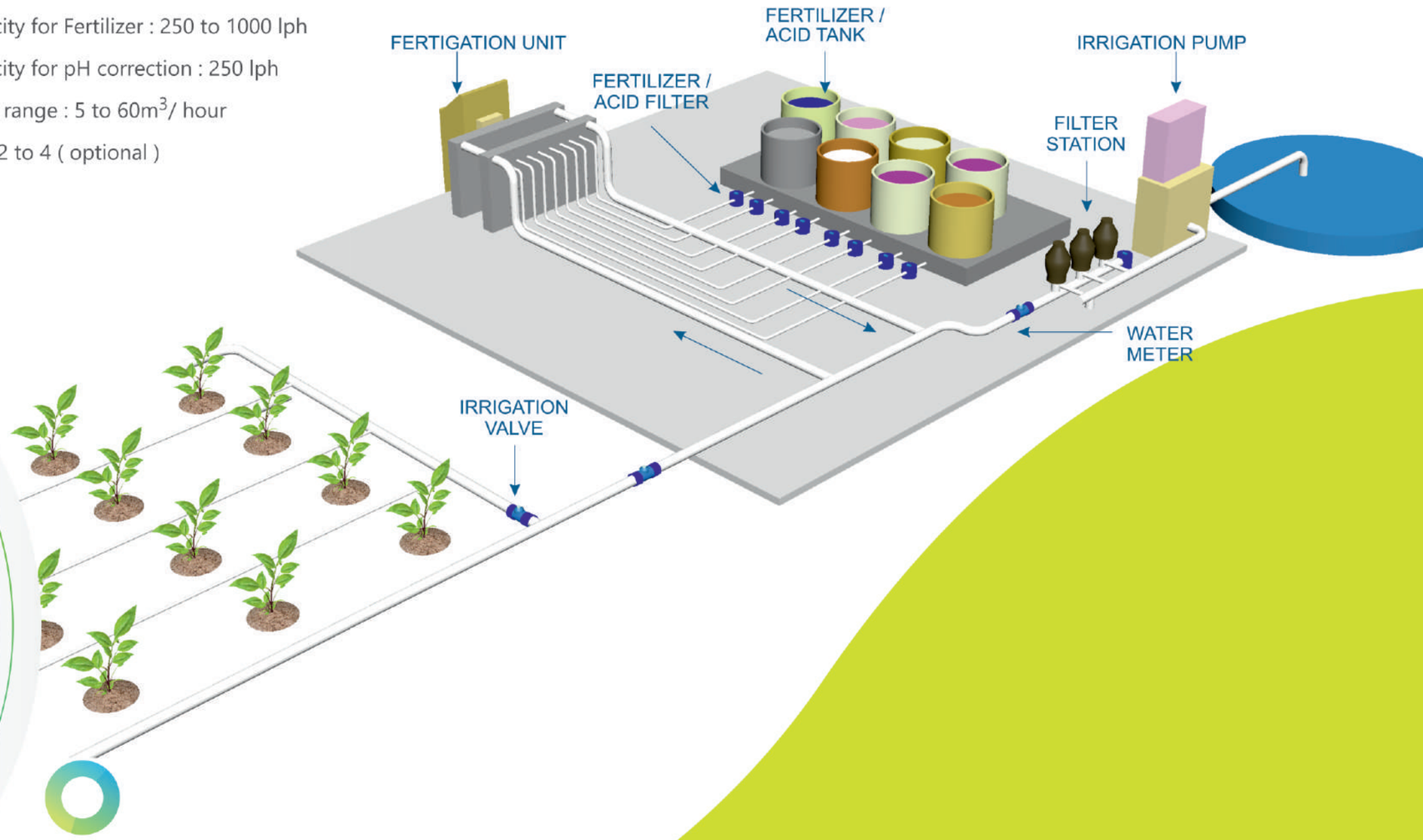
No of Injectors : 2 to 10

Injector capacity for Fertilizer : 250 to 1000 lph

Injector capacity for pH correction : 250 lph

Mainline flow range : 5 to 60m^3/ hour

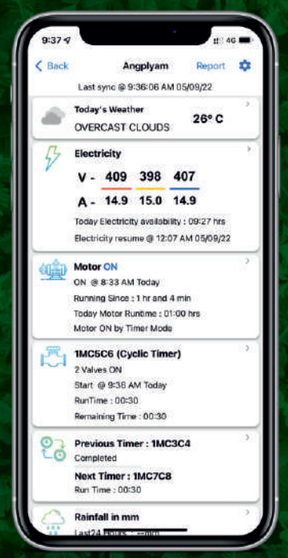
No of tanks : 2 to 4 (optional)



ADVANCED WATERING PLAN OPTIONS

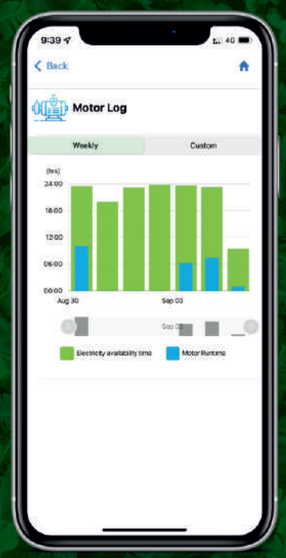
MULTIFARM DASHBOARD

DASHBOARD PANEL



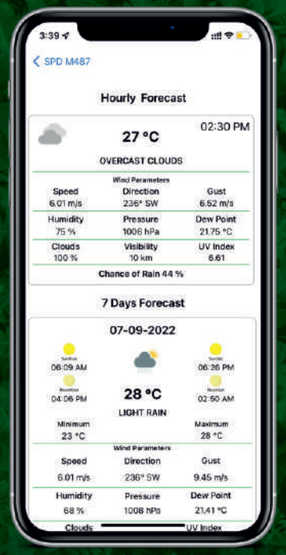
VALVE LOG

MOTOR LOG



WEATHER & SENSOR DATA

WEATHER FORECAST



RAINFALL DATA

TIMER LOG

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