

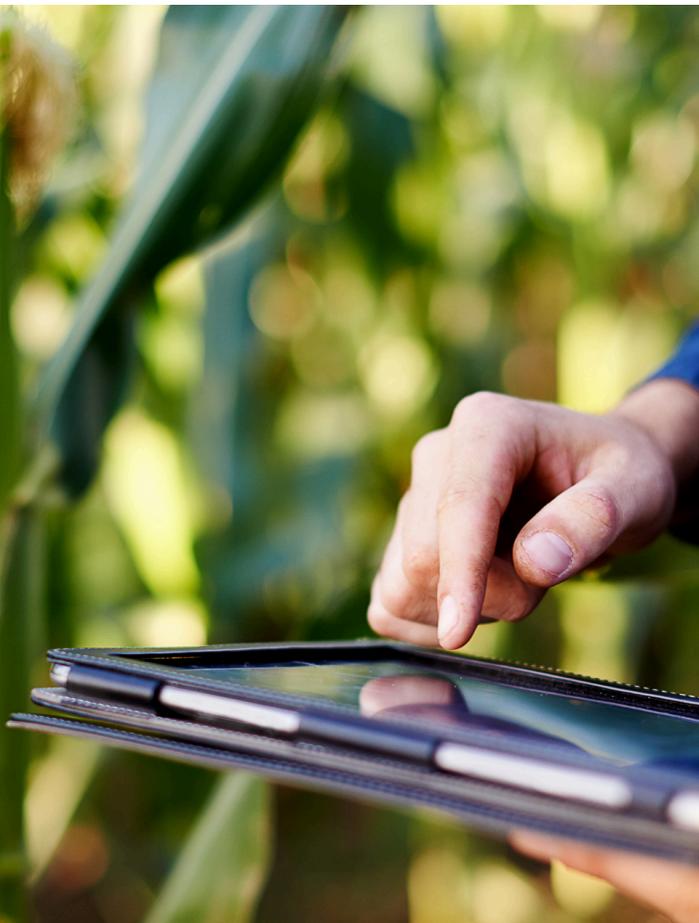
# Product Catalogue



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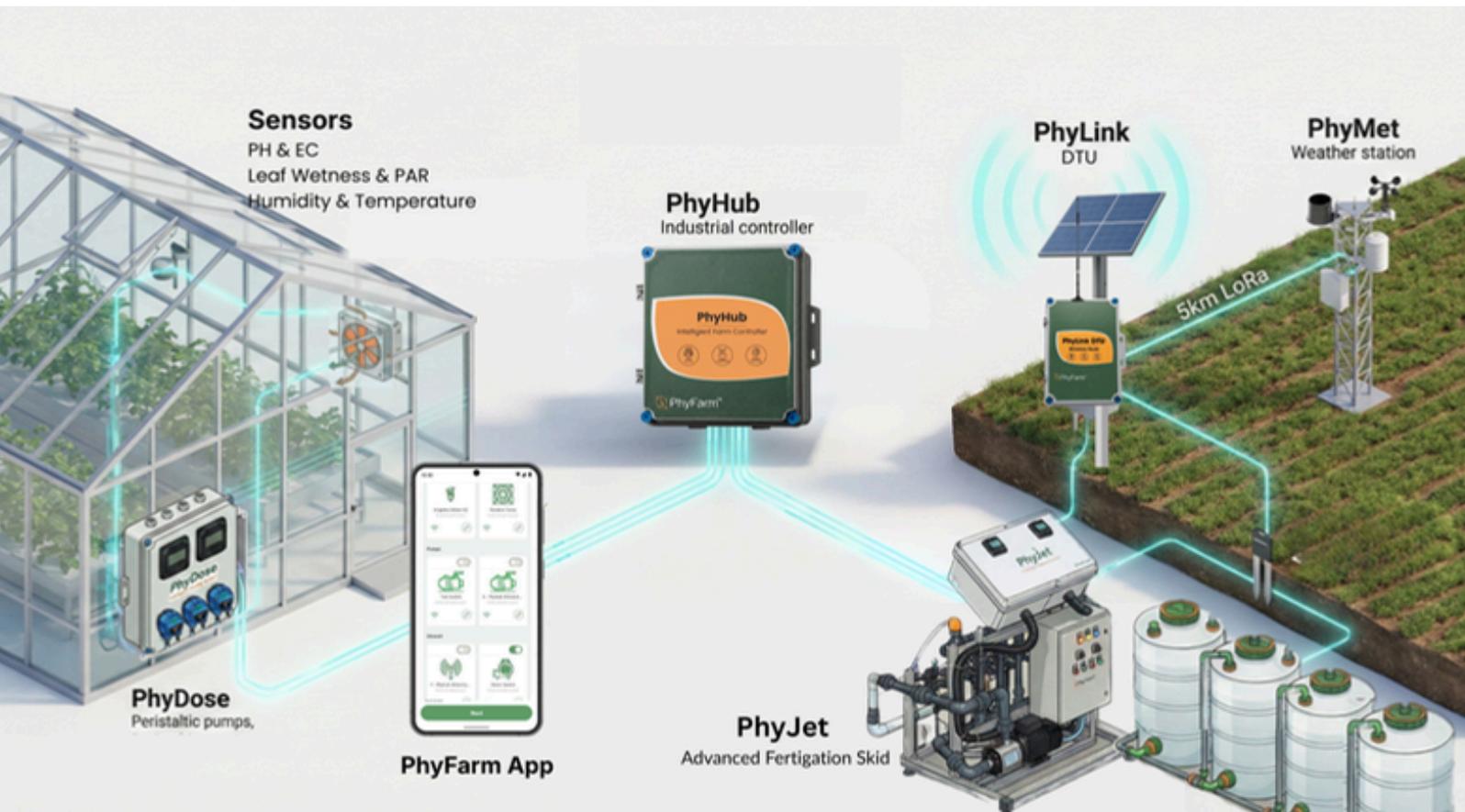
# Intelligent Automation for Every Farm

PhyFarm is an AI-enabled Ag IoT platform designed to automate and optimize farm irrigation and fertigation through a closed-loop system.

The solution specializes in intelligent retrofitting, integrating modular controllers and precision fertigation machines directly with existing legacy pumps, solenoid valves, and irrigation lines.

By transforming current infrastructure into smart assets, the system enables precision irrigation and fertigation without requiring total equipment replacement.

The entire operation, supporting both Open Field and Greenhouse setups and is remotely managed 24/7 via the mobile app.



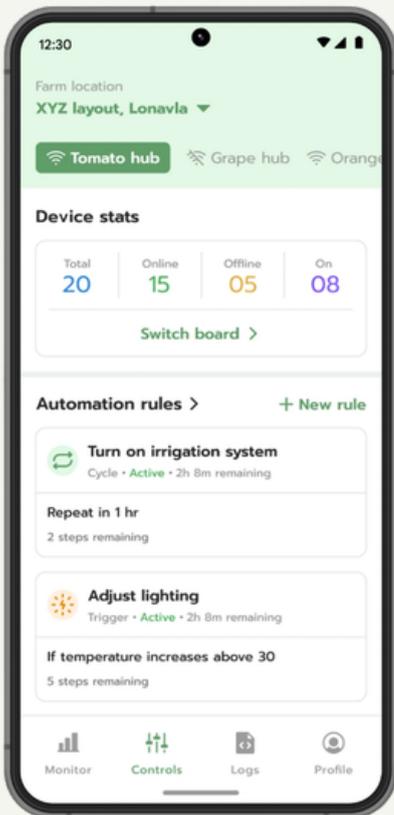


# PhyFarm App

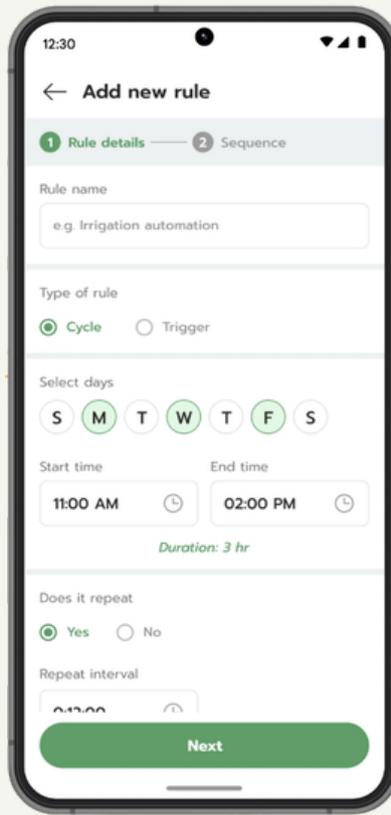
Every device in our ecosystem is managed through the PhyFarm App, available for free on both iOS and Android. You gain direct, real-time control over all your devices and access to your data.

The app enables 24/7 monitoring of soil moisture, temperature, and humidity, while letting you control equipment like pumps and valves from anywhere.

Visualize your operation through interactive dashboards, set up smart alerts for critical events, and automate routines to keep everything running smoothly.



Control your farm from a single interface



Build custom rules cycles and schedules



Optimize your operations by leveraging sensor analysis

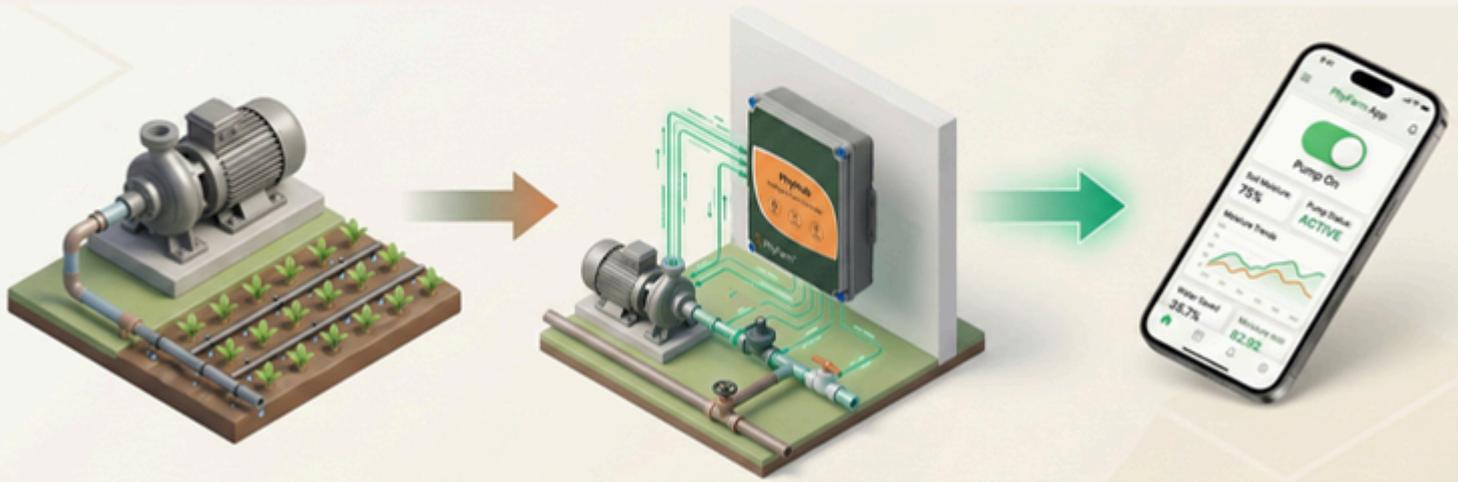


# Your Path to Precision Automation

Stage 1  
Your Existing System

Stage 2  
Our Intelligent Retrofit

Stage 3  
24/7 Remote Control

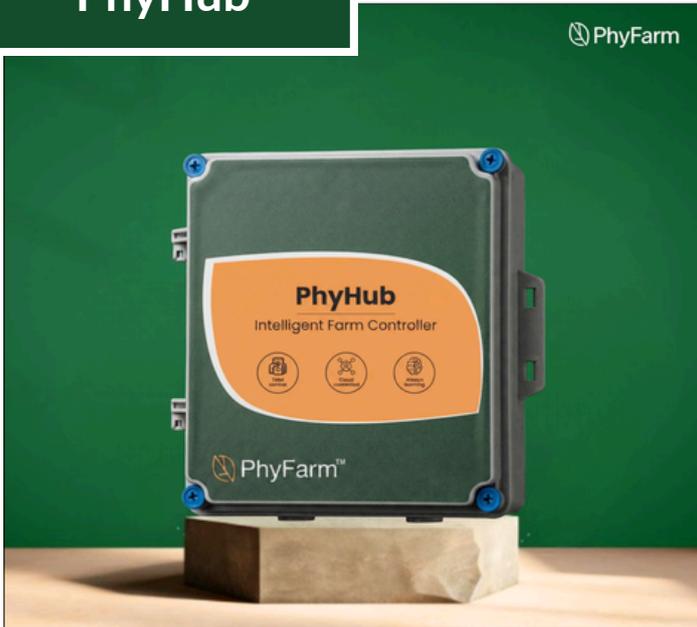


## Why Automate with PhyFarm?

Traditional Farming	With PhyFarm Automation
 <p>Going to the farm for irrigation in night because of uncertain power</p>	<p>Pump starts automatically when power comes – you sleep peacefully</p> 
 <p>Guess-based fertigation with manual Venturi</p>	<p>Accurate fertigation, saves fertilizer &amp; improves crop uniformity</p> 
 <p>Motor damage due to voltage fluctuation</p>	<p>Built-in voltage &amp; dry-run protection</p> 
 <p>Daily farm visits for valves operation</p>	<p>Control pump, valves &amp; fertigation from mobile app</p> 
 <p>No data, no tracking</p>	<p>Live alerts, reports &amp; history on your phone</p> 

# Controllers

## PhyHub



With this state-of-the-art modular Irrigation, Fertigation, and Climate controller, you can easily and precisely automate all of your farm devices from anywhere in the world

### Main Features

Control up to 32 outputs, including solenoid valves and pumps.

Back Flush Filter and Fertigation Control

### Additional Features

- Time Based irrigation and fertigation control
- Sensor Based irrigation control
- Real-time data collection and analysis
- Mobile App & Web connectivity
- Remote software update capabilities Over The Air (OTA)
- Inbuilt pause and emergency stop options in between Irrigation Cycles
- Customizable alerts and notifications
- Compatibility with various sensors and devices
- Compatibility with a wide range of AC or DC solenoid valves.
- Dry Run Protection feature for Main Pump.

### Technical Specification

ABS Enclosure Size: 300mm x 250mm x 95mm

Operating Voltage 220 VAC, 50-60Hz

AC Solenoid: 24 VAC, Supports 9V-20 VDC latching solenoids

## PhyHub Pro

PhyFarm



### Additional Features

- Time and Volume Based Irrigation Control ,
- Time, Volume & Proportionate based Fertigation Control ,
- Ec-pH monitoring and control ,
- Mobile App & Web connectivity ,
- Remote software update capabilities - Over The Air (OTA)
- Inbuilt pause and emergency stop options in between irrigation cycles
- Customizable alerts and notifications
- Compatibility with various sensors and devices
- Compatibility with a wide range of AC or DC solenoid valves.
- Dry Run Protection feature for Main Pump.

PhyHub Pro is the advanced, central control platform and AI-enabled decision engine for the entire greenhouse environment.

It ingests data from all sensor modules, executes sophisticated control logic, manages all actuators, and handles all communication protocols.

### Main Features

Control up to 44 outputs in Pro and 128 outputs in Pro - plus, customizable per client requirements within the output range of 28-128.

Remotely control Back Flush Filter, Fertigation & irrigation Control, Foggers, Solenoid Valves, and any other electric legacy farm equipment.

### Technical Specification

ABS Enclosure Size: 640mm x 420mm x 210mm

Controller Operating Voltage: 220 VAC, 50-60 Hz.

AC Solenoid: 24 VAC, Supports 9V 20 VDC latching solenoids

## PhyLink Gateway



The PhyLink Gateway is a robust wireless device that functions as the central hub for PhyLink Gateway networks.

Its primary role is to receive and process data from various connected nodes across the network.

### Main Features

**Industrial Integration:** Facilitates seamless integration with industrial control systems such as PLCs and SCADA, accessible via the Modbus RTU protocol.

**Data Conversion:** Converts the received sensor data for output via an RS485 bus.

**Data Storage and Access:** Collects and stores sensor data in a register table for easy retrieval.

### Technical Specification

Operating Voltage: 10-30VDC

Wireless Technology: PhyLink Gateway

Supported Frequencies: 433/470/868/915 MHz

Transmission Range: > 5 km

Interface: Electrically isolated RS485 supporting Modbus RTU

Security: AES128 encryption

### Technical Specification

**Channel Management:** CAD detection mechanism to prevent channel conflicts

**Configuration:** USB port for parameter setup and firmware upgrades

## PhyLink DTU



The PhyLink DTU is a versatile series of wireless Modbus RTU devices. Its design makes it an ideal solution for energy-efficient or battery-powered remote monitoring and control systems.

### Main Features

**Extensive IO Configurations:** Offers a variety of input/output (IO) functions, including analog input (AI), digital input (DI), analog output (AO), digital output (DO), pulse-width modulation (PWM), pulse signal (PULSE), and relay.

**Application Flexibility:** This variety ensures users can select a DTU model with the precise IO configuration required for their specific application.

**Reduced Power Consumption:** Features support for latching solenoid valves, which significantly reduces power consumption by requiring only a short pulse of power to change state.

**Integrating with various sensors** like pressure sensors, liquid level sensors, proximity switches, and ultrasonic sensors for data acquisition.

### Technical Specification

Operating Voltage: 10-30VDC

Wireless Technology: PhyLink DTU

Supported Signals: AI, DI, DO, AO, PWM, PULSE, and relay functions

Performance: Low power consumption and long-range data transmission

Reporting: Heartbeat report and event-driven report capabilities

Configuration: USB port for configuration

Security: AES128 encryption



# Fertigation System

## PhyJet



PhyJet is our complete, fully automated fertigation skid designed for precise nutrient delivery and real-time water quality management. It integrates seamlessly with the PhyHub Pro for scheduling and data logging.

### Main Features

Easy Install in New & Existing Systems

Features upto 7 channel support and 3 phase detection and energy metering capability.

The system also includes zone management through valve support and runs on a three phase 415v, 50hz-60hz power supply.

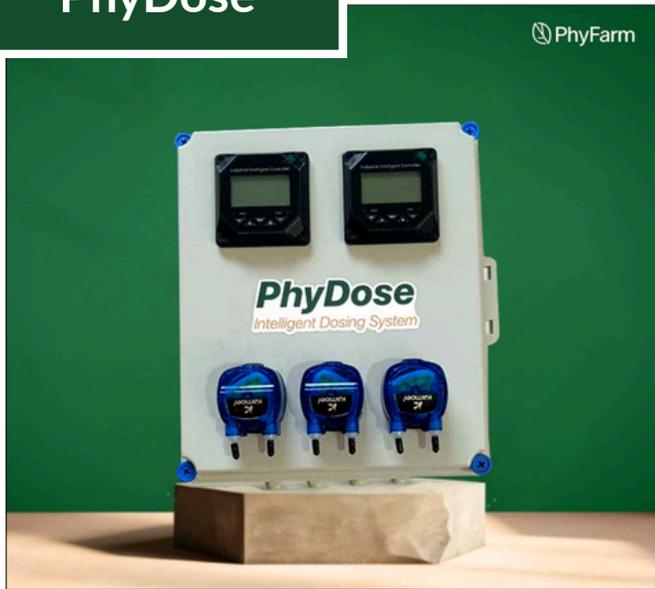
### Additional Features

- The system is available with multiple fertilizer tank control & pH tank control
- Proportional fertigation or according to the EC/PH control
- Handles various fertigation types including bulk, spread, and analog dosing, and supports a filtration tank with flow detection for added precision.
- Accessories such as a pressure gauge, backflow preventer, Venturi injector fertilizer valve & flow meter are included
- Housed in a corrosion-resistant aluminum frame with acid-resistant accessories.

Technical Specification
Three phase 415v, 50hz, 60hz Booster Pump
Provision for auto manual control for booster pump
Available fertilizer flow rate of: 100 L/h, 250 L/h, 400 L/h, 600 L/h, 1000 L/h
Working pressure up to 8 bar



# PhyDose



PhyDose is an IoT-enabled system that automates nutrient dosing in hydroponic setups by continuously monitoring the solution's properties.

## Main Features

**Precision Sensing:** Utilizes an integrated meter to continuously monitor Electrical Conductivity (EC) and pH with temperature compensation for accurate values.

**IoT-Enabled Automation:** Designed to automate nutrient dosing, ensuring your plants receive the perfect balance.

**24/7 Data Accessibility:** All measurement data is stored and accessible 24/7 via the internet, allowing easy data extraction from the platform.

Technical Specification
Temperature compensation: - 5 to 60 °C
Operating Voltage: 24 VDC
Operating Temperature: 0-55 °C
Nutrient Dosing: 550ml /1 liter / 2 liter per minute
Input voltage: 24~230 & 5V~24
EC Probe: 0.00uS-2000mS
PH Probe: 0.00~14.00pH
Dosing Settable Time: 30 Seconds

Technical Specification
External antenna connector support
Onboard WIFI XR819, IEEE 802.11 b/g/n
Bit rate: 802.11n up to 150 Mbps
Center frequency range of operating channel: 2412 ~ 2484 MHz
Quad-core Cortex Microprocessor & 32GB Onboard Storage



# PhyOne



PhyOne is a purpose-built, dual-channel fertigation system designed for simple fertigation use cases.

It is a cost-effective solution that allows for accurate and consistent nutrient delivery and is easy to install in both new and existing irrigation setups.

## Main Features

**Dual Channel Support:** Designed to handle two separate nutrient channels.

**Accurate Nutrient Injection:** Supports various dosing methods, including bulk and spread.

**App-Controlled Management:** Controlled through a user-friendly app with support for multiple program modes.

**Durable Construction:** Features a corrosion and acid-resistant aluminum frame and a filtration tank with flow detection for precise nutrient delivery.

Technical Specification
System Type: Dual channel fertigation system
Booster Pump Power: Three-phase 415V, 50Hz-60Hz
Booster Pump Control: Provision for auto/manual control
Working Pressure: Up to 8 bar
Program Modes: Supports 4 program modes
Fertilizer Flow Rate Options: 100 l/h, 250 l/h, 400 l/h, 1000 l/h
Frame Material: Aluminum (corrosion and acid resistant)

Technical Specification
Operation Modes: Supports timer and manual operation modes
Included Accessories: Pressure gauge, backflow preventer, Venturi injector, fertilizer valve, and flow meter.

# Filters & Valves

## Automatic Disc Filter

PhyFarm



The Automatic Disc Filter is a compact, efficient, and cost-effective solution designed to protect irrigation systems from impurities and prevent emitter clogging.

It features automated cleaning, minimal water usage during back flushing, and an integrated controller to ensure optimal operation, saving time and energy while reducing maintenance.

### Main Features

**Fully Automatic Operation:** Saves time and energy with automatic self-cleaning cycles based on pressure differential, time, or manual triggers.

**High Filtration Efficiency:** Designed for maximum filtration performance, even in challenging conditions.

**Efficient Back Flushing:** Requires less water and time for effective self-cleaning of discs.

**Compact Design:** Space-saving and ideal for various irrigation setups.

Filter Model		Aqua Disc 35	Aqua Disc 70	Aqua Disc 105	Aqua Disc 140	Aqua Disc 175	Aqua Disc 210	Aqua Disc 245
		3" x 1 Unit	3" x 2 Units	3" x 3 Unit	3" x 4 Units	3" x 5 Units	3" x 6 Units	3" x 7 Units
Connection Size (Inlet/Outlet)	Inch	3	4	6	6	8	8	
	mm	80	100	150	150	200	200	
Connection Type		Grooved / Flanged						
Maximum Recommended Flow Rate*	M <sup>3</sup> /HR	35	70	105	140	175	210	245
	GPM	154	308	462	616	770	924	1078
Maximum Operating Pressure	BAR	10						
	PSI	145						
Minimum Backwash Pressure	BAR	2						
	PSI	30						
Filtration Area	Cm <sup>2</sup>	1620	3240	4860	6480	8100	9720	11340
	Inch <sup>2</sup>	251	502	753	1004	1255	1506	1758
Material of Construction		All polymeric (PAGF, PPGF, PP, HDPE, NBR/EPDM, PE)						
Filtration Degree	Mesh	80 / 120 / 150						
	Microns	200 / 130 / 100						
Maximum Working Temperature (°C / °F)		60 / 140						
Power Input To Controller	By Power Adaptor	6V / 12V DC						
	By Batteries	6V By 4 x 1.5 "D" Size Alkaline Batteries						
Flushing Data								
Flush Duration Per Filter		30 seconds						
Flushing Flow Rate	M <sup>3</sup> /HR	12						
	GPM	53						

\*Maximum flow rate depends on the quality of water and filtration degree

# Automatic Screen Filter



Ensure uninterrupted irrigation with the most efficient cleaning solution with a dedicated controller.

The self-cleaning filter delivers perfect cleaning even in low-pressure applications, ensuring long-term system efficiency, reduced maintenance, and consistent water flow for all irrigation needs.

## Main Features

**Fully Automatic Operation:** Automatic flushing triggered by pressure differential, time, or manually. Equipped with a highly sensitive Pressure Differential Switch.

**Uninterrupted Flow:** Ensures continuous, uninterrupted irrigation during the flushing process with minimal water wasted.

**Optimal Cleaning:** Slow, controlled spiral movement of the suction scanner provides excellent cleaning and reduces wear and tear.

**Versatile Design:** Available in sizes 2", 2.5", 3" & 4", offers multiple screen areas, and runs on electric or solar power.

General Data	2"/2.5" Turbo 800	2"/2.5" Turbo 1200	3" Turbo 1200	3" Turbo 1600	4" Turbo 2000	4" Turbo 2400
Connection Size & Type	2"/50mm & 2.5" /65mm (Threaded (BSP/NPT)/Grooved)		3"/80mm Threaded (BSP/NPT) /Flanged/Grooved		4"/100mm (Flanged/Grooved)	
Max. Flowrate* (130 micron)	25m3/hr (110 gpm)	30m3/hr (132 gpm)	40m3/hr (176 gpm)	50m3/hr (220 gpm)	70m3/hr (308 gpm)	80m3/hr (352 gpm)
Maximum Operating Pressure	10 Bar/145 psi				8 Bar/116 psi	
Min. Recommended Flushing Pressure	2 Bar/30 psi					
Max. Operating Temperature	60 C/(140 F)					
Filtration Surface Area (cm <sup>2</sup> /inch <sup>2</sup> )	831/129	1270/197		1662/258	2101/326	2540/394
Material of Construction	All Polymeric / EPDM / St. St.					
Available Filtration Degree Mesh (Microns)	80 (200) /120 (130) /150 (100)					
<b>Flushing Data</b>						
Flushing Cycle Time*	15 Sec					
Flushing Flow Rate at 2 bar	8.1m <sup>3</sup> /hr 35.6 GPM	9.1m <sup>3</sup> /hr 40 GPM		10m <sup>3</sup> /hr 44 GPM	10.5m <sup>3</sup> /hr (46 GPM)	15m <sup>3</sup> /hr (66 GPM)
<b>Control and Electricity</b>						
Rated Input Supply (To Controller)	24V DC					
*Depends on water quality.						

## Automatic Sand Media Filter



The high-quality Automatic Sand Media Filter is operable in both manual and automatic modes, providing ease of installation, operation, and maintenance, even in high humidity areas. It serves as primary filtration to protect drip and micro-irrigation systems, preventing emitters from plugging.

Its applications include filtering surface water from open sources (like ponds, rivers, or lakes) which contain organic and biological contaminants, silt, clay, ferrous, and manganese, and it is also suitable for use with fertilizers and acids.

### Main Features

**Corrosion-Free:** Features a 5-year warranty and uses cutting-edge advanced polymer technology to prevent corrosion.

**Exceptional Strength:** Constructed with reinforced glass fibre for extra strength, durability, and resistance to impact, corrosion, and chemicals.

**Anti-Clogging Design:** Advanced flute design minimizes clogging and reduces pressure drop in the filter.

**All-Weather Compatible:** Works efficiently even in high humidity areas.

Body Diameter X No. Of Tanks	Manifold Inlet/ outlet	By-pass Line	Nominal Flow Per Tank	Maximum Flow Per Array	Backflush Flow	Empty Tank Weight Per Tank	Empty Tank Volume Per Tank	Sand Bed Height		Sand Quantity Per Tank	End Connection Type for Manifold
Inch X Nos.	Inch	Inch	m <sup>3</sup> /hr	m <sup>3</sup> /hr	m <sup>3</sup> /hr	Kgs	Liter	mm	inch	Kgs	
20 X 2	3	2	25	50	12~14	43	145	400	15 <sup>3</sup> / <sub>8</sub>	150	Flanged / Grooved
24 X 2	4	2	40	80	14~16	52	230	400	15 <sup>3</sup> / <sub>8</sub>	200	Flanged / Grooved
30 X 2	4	2	50	100	16~18	68	320	370	14 <sup>5</sup> / <sub>16</sub>	350	Flanged / Grooved
Maximum Working Pressure – 6 Kg/cm <sup>2</sup>											
Material of Construction :- FRP, EPDM, PPGF											

### Backflushing Data

Flushing Cycle Time* (Seconds)	90 Seconds
Back Flushing frequency*	Once every 3 hrs
Minimum Backwash Pressure	1.5 kg/cm <sup>2</sup>

Note:- \*No. of cycles per day, depends on quality of water. But at least one cycle of back flushing is strongly recommended after every irrigation cycles.

## 3 Way Electric Solenoid valve

PhyFarm



This control valves combined with innovative “Curved Bridge\*” design and performance which caters to a diversified range of irrigation application.

Equipped with a flexible fabric reinforced diaphragm and made with engineering grade plastics, the valve is operated by the pressure in the pipeline.

### Main Features

Reinforced diaphragm offers smooth operation, tight shut-off and no distortion.

Innovative water passage offers one of the highest flow coefficient amongst the similar products available.

Polymeric valve with great durability and corrosion resistance.

Simple and robust design involving 4 main parts.

Available in 1.5", 2", 2.5", 3", 4" and 6" sizes

## Pressure Relief Valve

PhyFarm



The Quick Pressure Relief Valve is a hydraulically operated, diaphragm actuated control valve that relieves excessive system pressure that rises above the maximum pre-set.

Equipped with a 2 way diaphragm actuated spring loaded pilot, the reaction of the valve is immediate, accurate and offers high repeatability by fully opening.

### Main Features

Relief Valve provides smooth drip tight closing once pressure reduces below the pre-set.

Available in 1.5", 2", 3", 4" sizes.

## Blower Agitator

PhyFarm



### Applications

- Fertigation Tanks – Keeps fertilizer solution uniform for accurate dosing.
- Hydroponic/Nutrient Tanks – Prevents nutrient sedimentation.
- Irrigation Automation Systems – Ensures consistent nutrient delivery in automated setups.
- Chemical Mixing – Ideal for mild chemical preparation, micronutrients, and soluble powders.
- Water Storage Tanks – Prevents algae growth and maintains water freshness.
- Industrial & Laboratory Mixing – Suitable for applications requiring non-contact agitation

A Blower Agitator is a high-efficiency air-driven device designed to maintain uniformity and prevent sedimentation in fertigation tanks, chemical solution tanks, and water storage systems.

It uses controlled air pressure from a blower to create continuous turbulence inside the tank, ensuring the solution remains homogenous.

This enhances nutrient mixing, improves fertigation accuracy, and prevents clogging in micro-irrigation systems.

### Main Features

**Uniform Mixing:** Provides consistent agitation throughout the tank, avoiding settling of heavy particles or fertilizers.

**Energy Efficient:** Consumes less power compared to mechanical stirrers due to air-driven operation.

**Maintenance-Free Operation:** No moving parts inside the tank, reducing wear and tear and increasing product life.

**Corrosion-Resistant Construction:** Built with high-quality materials suitable for chemicals and fertilizers.

**Silent & Vibration-Free:** Operates smoothly with minimal noise.

**Easy Installation:** Simple setup with compact design, suitable for new and existing fertigation systems.

**Customizable Air Output:** Adjustable airflow to suit different tank sizes and mixing requirements.

Available in 1, 2, 3 Hp in single or 3-phase

# Sensors

Our range of high-accuracy internal sensors and data loggers are designed for continuous, real-time monitoring of the greenhouse's microclimate and the substrate (root zone) conditions.

Our sensors include:



## Soil Moisture Sensor

An industrial-grade sensor combining soil moisture and temperature measurement. It uses dielectric constant measurement to determine Volumetric Water Content (VWC) regardless of soil type

### Main Features

Easy setup and dismantling methods

Senses real-time Soil moisture content and transmits to Main Controller

Mobile notifications and alerts in real time

Provides trigger-based Irrigation based on Soil Moisture

### Technical Specification

Output: Variable resistance from 550 to 32000 ohms

Dimensions: Diameter- 0.875" (22mm), Length: 3.25" (83mm)

Range: 0 to 239 centibar (kPa)

Weight: 0.147 lb. (.067 kg) with 5' lead

Cable: 2 conductor AWG 20 in 5' (1.5m) or 15' (4.5m) standard lengths

Material: ABS plastic caps, stainless steel body, hydrophilic fabric, granular matrix

## PH Sensor

PH sensors used to determine the pH value of the soil. Monitoring of these it provides the proper fertility to the soil depending upon the soil nutrients, It's helping farmers maximize agricultural yields.

### Main Features

Precise fertigation based on online PH analysis

The controller automatically adjusts acid dosage based on pH levels

Mobile notifications and alerts in real time

### Technical Specification

Operating Voltage: 230V AC 50-60Hz

Electrodes: PH

Operating Temperature: 5-50 C

Outputs:4-20mA

## EC Sensor

Ec sensors monitor electrical conductivity in soil, water and fertilizer solutions, helping farmers maximize agricultural yields.

### Main Features

Fertigation based on online EC analysis

System for precise EC sampling and monitoring that enables electrical Conductivity regulation in water for mineral solvents monitoring

Mobile notifications and alerts in real time

### Technical Specification

Operating Voltage: 230V AC  
50/60Hz

Electrodes: EC

Operating Temperature: 5-50 C

Outputs:4-20mA

## Leaf Wetness and Temperature Sensor

This is an industrial-grade sensor designed to measure leaf wetness and temperature for long-term monitoring. It is sealed, durable, and utilizes Frequency Domain Reflectometry (FDR) techniques to mimic real leaf thermal resistance. It is also capable of detecting water, ice, and fog.

### Main Features

Measures both leaf wetness and temperature in a single unit.

Features an IP68 waterproof rating with epoxy resin sealing and a sealed resin-packaged plastic body, ensuring it is suitable for long-term monitoring.

Includes both Reverse power protection and built-in TVS/ESD protection.

### Technical Specification

Power Supply: 3.6 - 30V/DC

Power Consumption:  
6mA @ 24V\ DC

Operating Temperature: -40-85 °C

IP Rating: IP68

## Humidity and Temperature Sensor

This sensor is based on the Sensirion SHT3x-DIS, a digital sensor that is fully calibrated, linearized, and temperature-compensated and offers NIST traceability. It utilizes CMOSens® technology to ensure high reliability and long-term stability.

### Main Features

Two user-selectable I2C addresses (0x44 and 0x45).

Dedicated ALERT pin for interrupt/alarm conditions.

I2C (Inter-Integrated Circuit), supporting communication speeds up to 1 MHz (Fast Mode Plus).

### Technical Specification

Humidity Accuracy (SHT35):  $\pm 1.5$  %RH  
Temperature Accuracy (SHT35):  $\pm 0.1$  °C

Humidity Resolution: 0.01 %RH  
Temperature Resolution: 0.01 °C

Humidity Specified Range: 0 to 100 %RH  
Temperature Specified Range: -40 to 125°C

Supply Voltage (V\_DD): 2.15 to 5.5

## Photosynthetically Active Radiation Sensor (PAR)

The PhyFarm HZ-300AL-GH-N01 (Type 485) is a Photosynthetically Active Radiation (PAR) Sensor. It is designed to measure light in the 400nm to 700nm spectral range, providing the Photosynthetic Photon Flux Density (PPFD).

### Main Features

Self-powered, analog original quantum sensor.

Rugged, self-cleaning sensor housing design.

High-quality cable terminating in pre-tinned pigtail leads for easy connection.

### ModBus-RTU Communication Details

The system must use ModBus Function Code 0x03 (Read Holding Registers) to get data.

Default Baud Rate: 4800 bit/s

Default Device Address: 0x01

PPFD Data Register: 0000H

Data Format: 16-bit Unsigned Integer  
(The raw value is the true PPFD measurement in  $\mu\text{mol}/\text{m}^2\cdot\text{s}$ ).

### Technical Specification

Output Method: RS-485 (Standard ModBus-RTU Protocol)

Power Supply Range: 7V to 30V DC

Power Consumption: 0.06W

Operating Temperature:  $-30^{\circ}\text{C}$  to  $75^{\circ}\text{C}$

IP Rating: IP67 (Aluminum shell)

### Measurement Performance

Measured Parameter: Photosynthetic Photon Flux Density (PPFD)

Measurement Range: 0 to 2500  $\mu\text{mol}/\text{m}^2\cdot\text{s}$

Resolution: 1  $\mu\text{mol}/\text{m}^2\cdot\text{s}$

Accuracy:  $\pm 5\%$  (at 1000  $\mu\text{mol}/\text{m}^2\cdot\text{s}$ )

## Pressure Sensor

The HSM-YL001-H1 is a universal pressure transmitter that utilizes high-precision and high-sensitivity pressure-sensitive components. It

features a stable, reliable, and strong anti-interference amplification circuit that converts the measured medium's pressure signal into standard analog or digital signals.

The device is widely used in industrial automation fields such as petroleum, chemical, metallurgy, environmental protection, and automation control engineering

### Main Features

**Versatile Output:** Supports standard analog (4-20mA, 0-10V) and digital (RS485) communication outputs

**Wide Compatibility:** Suitable for liquid or gas media compatible with the sensor material

**Multi-Unit Support:** Capable of displaying/outputting in various units including Mpa, Bar, kPa, Pa, PSI, Kg/cm<sup>2</sup>, and mH<sub>2</sub>O

### Technical Specification

Test medium: Liquids or gases compatible with the material	Range of measurement: -Any interval within 0.1-250MPa
Accuracy class: 0.1%FS、0.25%FS、0.5%FS	Stability: ±0.25% FS/year, ± 0.5% FS/year
Output signal: RS485 communication, 4-20mA, 0-10V	Working voltage: 12-36V DC (calibration: 24V ± 5%, ripple<1%)
Power supply impact: Less than 0.01%/V of the output range	Operation temperature: -20-80°C
Compensation temperature: -20-80°C	Temperature influence: ±1.55% FS/year, ± 3.0% FS/year
Overload capacity: 300%	Threaded interface: M20 1.5, G1/2, 1/2NPT, etc
Load resistance: 4-20mA R= U-14 RD	(Among them: U is the power supply voltage. RD is the internal resistance of the cable)

# Weather Station

## PhyMet



PhyMet is a robust external meteorological station that provides the critical outdoor environmental data necessary for intelligent, predictive control by the PhyHub Pro.

Technical Specification
Operating Temperature: +32° to +140°F (0° to +60°C)
Dimensions (Console): 6.38"×6.13"×1.63" (162 mm×156 mm×41 mm)
Power Supply: 5 VDC Adapter; Backup: 3 C-cells (approx. 1 month life)

### Sensor Specification

Variable	Resolution	Range	Accuracy	Update Interval
Barometric Pressure	0.01" Hg	16.00" to 32.50" Hg	±0.03" Hg	1 min
Humidity (Outside)	1%	1 to 100% RH	±2%	50s - 1 min
Humidity (Inside)	1%	1 to 100% RH	±2%	1 min
Rainfall	0.01" (0.2 mm)	Daily to 99.99"	±3% (< 10"/hr)	20-24 sec
Rain Rate	0.01"	Up to 30"/hr	±5%	20-24 sec
Solar Radiation	1 W/m2	0 - 1800 W/m2	±5%	50s - 1 min
UV Index	0.1 Index	0 - 16 Index	±5%	50s - 1 min
Wind Speed	1 mph	2 - 200 mph	±2 mph or 5%	2.5 - 3 sec
Wind Direction	1° (numeric)	0-360°	±3°	2.5 - 3 sec

# Installation Timeline & Warranty



The total project timeline is 45 days from the receipt of the initial 50% advance payment

## Standard 1 Year Warranty

**Coverage:** Repair or replacement of parts or the entire product found to be defective due to material or workmanship.

**Exclusions:** The warranty does not cover damage from misuse, improper installation, unauthorized repairs, or tampering.

**Liability:** The company is not liable for consequential losses or damages beyond the repair or replacement of the product.

## 5 years AMC Support

Guarantees service response, includes scheduled preventative maintenance, sensor recalibration, and virtual technical support for sustained performance.

# Our Clients



## Testimonials:



# About PhyFarm

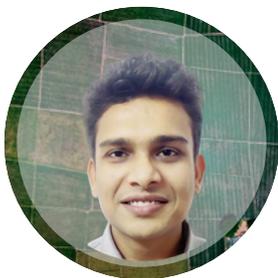
PhyFarm is pioneering the digital transformation of the agricultural climate ecosystem by developing an advanced Ag IoT Platform powered by artificial intelligence.

Designed from the ground up, PhyFarm's platform addresses critical challenges in automation, intelligence and sensing, empowering farmers with data-driven insights and automated solutions to enhance sustainability and productivity.

With innovative technology and a commitment to climate-conscious agriculture, PhyFarm aims to reshape the future of farming, making it smarter, more efficient, and resilient to environmental challenges.

Our vision is to Democratize precision agriculture and make it the standard way we grow our food.

## Management



**Naveen Singh**  
FOUNDER



**Akshay Nikam**  
VP OF SALES



**Inge van Aswegen**  
GROWTH &  
PARTNERSHIPS



**Nitikesh Jadhav**  
BUSINESS  
DEVELOPMENT





# Contact Us



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