



Soft Fruit Production - Make The Most of Your Business By The Optimum Irrigation



Meeting the market's increased demands

The demands for Soft Fruit in various product categories are significantly increasing, and this has made consumers more aware of the quality of the fruit. In order to ensure both the quality and quantity of the harvested product and thereby be able to fulfill sales agreements, the grower must have increased focus on both correct watering and fertilizer.

The traditional way of producing Soft Fruit has been by manually operating watering and fertilizer. It has been a time-consuming task to ensure timely irrigation, and this has meant that you have often been able to experience either being too early or late out. By using an automated method such as The AMI Penta mixer saves time, ensures proper watering and fertilizer, and thereby greater and better yield - and at the same time achieves a cost saving.

Our AMI Penta system is especially suitable for Soft Fruit growers, who have other requirements for the watering and fertilizer mixer flexibility and possibilities for future expansion of both area / valves and sensors.

The need for documentation of and historical insight into the culture's irrigation process plays a greater and greater role. These data can be collected and analyzed via a central control system, which we call SuperLink. All our systems are interoperable, so if a fertilizer mixer is to be built with climate control or other Ami Pentas, this is also possible.

How is your irrigation and fertilizer system now, and is it ready for the market's requirements and thereby your increased needs in 2-5 years? Read our description and explore the possibilities for improved production with a Senmatic AMI Penta solution.

AMI PENTA FERTILIZER & IRRIGATION MIXER - and It's features



Simple and advanced control of plant growth

- Intuitive touch screen for easy setup of watering strategy

Built for now and future needs

- Modular, customized system
- Easy to expand for future requirements

Grundfos main pump

- Reliable pump with stable and consistent flow and pressure

Always delivered with mixing tank

- Ensures the right mix of fertilizers and thereby higher accuracy of EC and pH control

User-friendly touch display

- Intuitive and easy to use menu securing the full overview

Flexible setup of the system

- Sensors can be used across the watering groups

All software is included in the system

- No expensive updates
- We don't want the lack of software restricting the use of the mixer. Therefore, updates are by default free of charge

4 time zones per day - 4 different watering strategies

- Ensures that EC/pH is automatic adjusted each morning and night

Control of return water

- Can control up to 8 return water basins, meaning that each culture can be irrigated separately

16 languages to choose from

- As standard, 16 languages are installed. This to avoid language difficulties in a multinational company



How to customize the Ami Penta as your requirements increase

Sun Sensor



- Securing automatic start of watering depending on the light radiation

Drain Counter



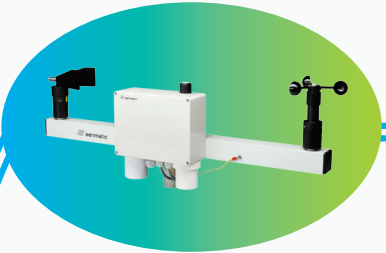
- Drain and sun regulation of the automatic start
- Can be expanded with EC and pH sensors for reading of drain water

Temperature Sensor



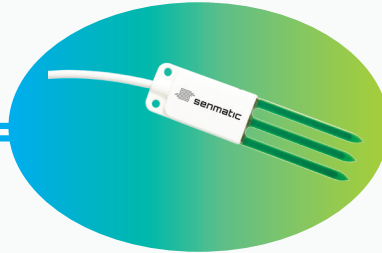
- Reading of temperature by the culture and freeze protection programme
- Can also start watering for lowering the temperature

Weather Station



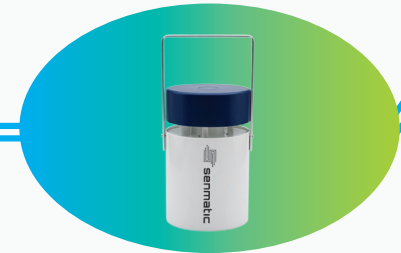
- Wind direction / speed, radiation, temperature and humidity
- For individually use in groups for watering strategy

Soil Sensor



- Measuring of humidity and temperature of the growing medium
- Starts watering and reduces the risk of drying-up

Temp./Humidity Sensor



- For reading and start of watering if the temperature is too high or humidity is too low
- Ensuring harvest during critical stages

Rain Counter



- Collecting data of the rainfall
- Postponement / reduction of watering in open fields

Other Sensors



- In case you need other than the mentioned sensors, we are open to assess the possibility of integration in our Ami Penta

SuperLink



- For collecting and analyzing data of the culture's irrigation process
- Can be used as self-contained item and is not dependent on the other equipment



AMI Penta Specifications

AMI Penta controls up to

- pH, EC sensor set 2
- Dosing units, fertilizer 7
- Dosing units, acidity 1
- Main pumps 2
- Valves 200
- Tanks, recirculation 8
- Recipes 20
- Groups 100

Supply Voltage	3 x 230 V / 400 V AC +10/-15 % 50/60 Hz
Flow rate Inline system	10 - 64 m ³ /h, 3 to 8 bar
Flow rate Amigo (injector system)	40 - 200 m ³ /h, 3 to 8 bar
Main pump, brand	Grundfos
Fertilizer dosing units	Venturi or pumps Small model: 2 - 5 units (one could be pH) Large model: 2 - 8 units (one could be pH)
Irrigation valves	24 V DC, 0.5 A or 24 VAC
Alarm outputs	1 digital output 24 V DC, 0.5 A
Communication	ETHERNET
Dimensions L x W x H	Small model - 130L mixing tank: 1200 x 790 x 1560 mm Model >32m ³ - 350L mixing tank: 1530 x 1400 x 2000 mm

Program contents

- Irrigation on time or volume
- Volume registration
- EC control 2-8 stock solutions
- EC control, relative, absolute or ratio
- Mixing of fresh water and return water
- EC depending on solar radiation
- Automatic period with 4 time zones
- 24 hour pause, fixed time or fixed interval
- Manual start of individual valves
- Pre and post rinse valve
- Sun integrator
- Drain control
- Volume control
- Analog start
- External start
- Fixed time interval
- Frost protection
- 24 hour program
- Week program
- Local weather station
- Automatic filter clean
- As standard 16 languages
- And more....

Alarms

- EC 1/2 and pH 1/2 min./max., absolute
- EC and pH min./max., relative
- Flow alarm

Separate choice of units

- Volume Liter, m³, gallon
- Flow l/min, 0m³/h, gpm
- Temperature °C, °F
- Irrigation time mm:ss, hh:mm
- Energy kJ, Wh

Our Competency

Back in 1953 Senmatic started under the name of DGT-Volmatic, and since then we have changed owners and ended up with the name Senmatic. But as you will understand we have many years of experience manufacturing complete and configurable solutions for horticultural applications such as electronic and mechanical climate control, irrigation and fertilizing mixing and LED lighting, and we are a leading worldwide supplier.

The people you will meet from the Senmatic team have a former background within greenhouse technology. Therefore, they are competent to share their own experience with you when supporting you in optimizing the growth of your soft fruit.

We are looking very much forward to support you to secure a beneficial production.

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