GrowSphere™ MAX

Technical Product Page

GrowSphere™ **MAX** is an intuitive and simple-to-use controller. It is designed to speak the grower's language. The **Grow**Sphere™ **MAX** regulates water and fertilizer delivery in a precision irrigation system. Managing local and remote devices such as pumps, main valves, field valves, and other hydraulic components, ensuring crops receive the optimal amount of water and nutrients at all times.

/ **Grow**Sphere™ **MAX** - Configuration

GrowSphere™ MAX
without screen

GrowSphere™ MAX
with screen

GrowSphere™ MAX
double door with screen

/ Advanced Features

→ Intuitive operation that makes irrigation tasks quick and efficient

→ Smart alerts and notifications

→ Built-in setting validation

→ Flexible and secure remote access

→ Integrates with the **Grow**Sphere™ Workspace

→ Suitable for all farm sizes

→ Modular configuration

→ Integrates with the Netafim secured cloud based interface

→ Industry standard electric components

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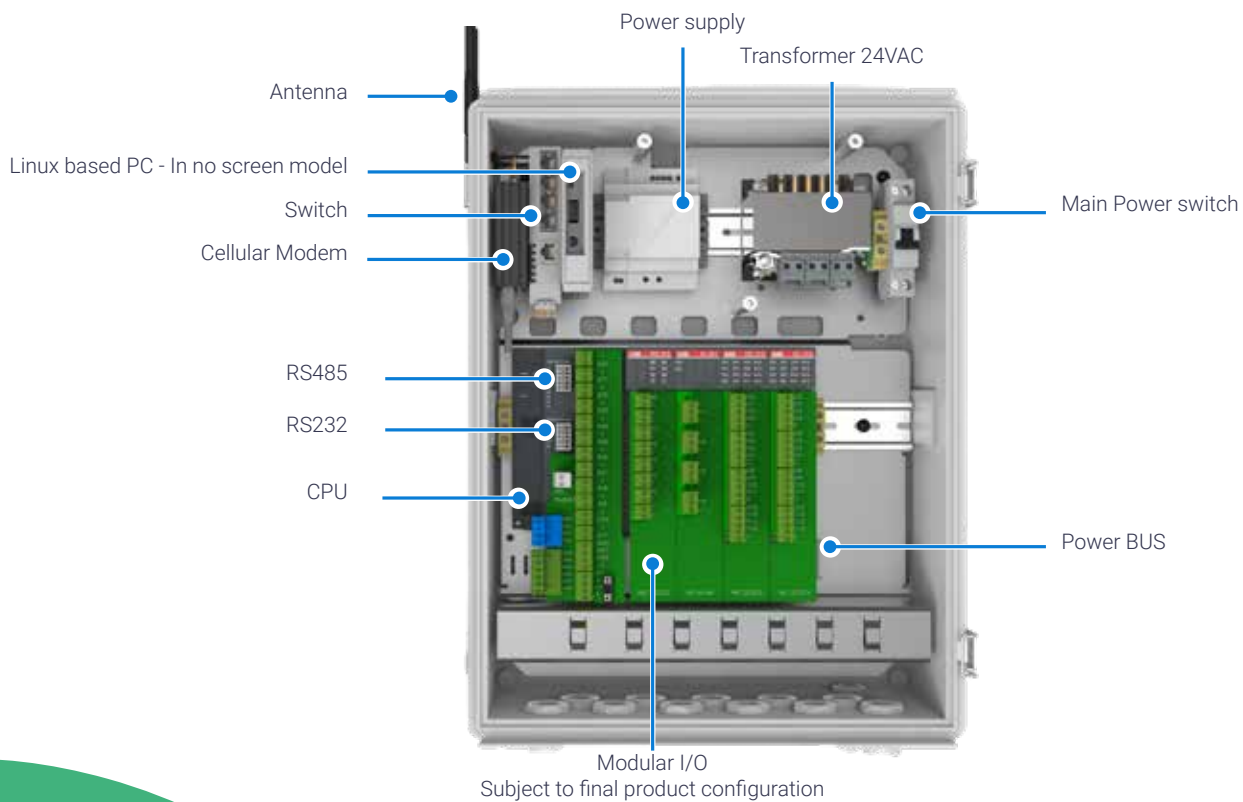
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/ Supported Irrigation Devices

Object	Per Main Line	Total
Main Line	1	4
Main Valve	1	4
Main Water Meter	1	4
Pump Station	1	4
Pumps	3	12
Filter Station	1	4
Filters	32	128
Dosing Stations	1	4
Dosing Channels	8	8
Valves	256	256

/ Programs, Shifts and Recipes

Programs, Shifts and Recipes	Per Main Line	Total
Irrigation Programs	10	40
Shifts per program	32	
Valves Per Shift	32	
Dosing Recipes	10	40

/ **Grow**Sphere™ **MAX** - Internal Design*

* Subject to product configuration

Power supply
Transformer 24VAC
Antenna
Linux based PC - In no screen model
Switch
Cellular Modem
Main Power switch
RS485
RS232
CPU
Power BUS
Modular I/O
Subject to final product configuration

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/ **Grow**Sphere™ **MAX** - Technical Specifications

→ **Processor Module - PM5052**

Custom ABB controller
- Memory - 80MB
- 12 DI
- 6 DO
- 1 x RS232 Communication Port for external devices
- 1 x RS485 Communication Port for external devices

→ **Screen**

- Input - 24VDC
- CPU - quad-core 1.8GHz
- O.S - Linux
- Resolution - 1280*800
- Screen Saver - after 10 min

→ **Power Supply**

- Main Input - 100 ~ 240 VAC
- 50-60Hz according to configuration
- Rated current - 2.5A @ 24v
- Aux Output PS 5V

→ **Cellular Modem - 4G/3G/2G**

- 2 Ethernet ports
- Global SIM installed
- Wireless access point

→ **Remote Terminal Units**

- RadioNet
- SingleNet
- NetRTU

→ **Weight and Size**

Dimensions:
- Maximum - 35 cm X 45 cm X 20 cm (excluding antennas)

Weight:
- Maximum- 12.4 kg
- Industrial quality (IP65 / UL) enclosure

→ **Expandable I/O Modules**

Triac output Module:
- 8 x 24VAC output
- High-speed operation of dosing output
- current per channel = 2 A

Relay output Module:
- 16 x 24VAC
- Fuse protected outputs
- Rated current per group = 10A max

Digital Input module:
- 16 Digital inputs
- Feed (Sourcing) voltage – 24 VDC
- Maximum 4 pulses in Sec (Software limitation)

Analog Input module:
- 4 Analog inputs
- Feed (Sourcing) voltage – 24 VDC
- Resolution – 0-20mA; 4 -20mA; 12 bit

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