

WGA-10 telemetry controller



- ✓ enables automatic irrigation based on schedules and sensor inputs
- ✓ provides information necessary to make agrotechnical decisions
- ✓ is a fully autonomous solution
- ✓ battery powered
- ✓ communicates by radio
- ✓ works with non-pressure water tanks of various shapes and capacities
- ✓ capable to manage the system from anywhere in the world
- ✓ built-in alarms and events notify about device deviations

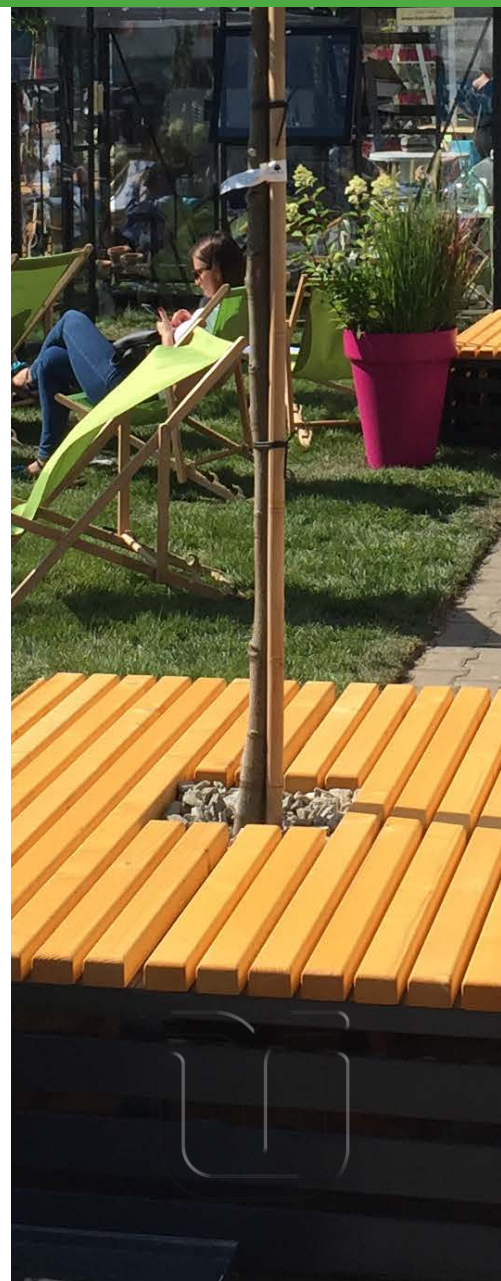


WellGreen[®] WGA-10 is a fully autonomous, radio-communicated, battery-powered device for irrigation and monitoring of living parameters of vegetation. Thanks to the possibility of working with a non-pressurized water source (tank), it can be successfully used even in places where there are no water intakes that allow traditional irrigation systems to work.

The soil probe integrated with the device measures soil moisture, temperature and electrical conductivity (salinity), allows you to remotely monitor the soil parameters and make decisions about the need to start the irrigation process when soil moisture drops below the threshold set in the device.

WGA-10 allows you to optimize the costs of maintaining urban green areas:

- the device alerts about the low level of water in the tank, thanks to which the services responsible for refilling it can react on an ongoing basis, build a water replenishment plan and leave only in justified cases,
- provides optimal conditions for plant life, thanks to which there is no loss in the areas covered by this method of irrigation and reduces the need to replant dry plants (also under the guarantee),
- has advanced adaptation and optimization algorithms, thanks to which the device learns based on information from built-in sensors and optimizes the amount of electricity consumed from the battery pack, necessary to supply plants with water.



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Technical data

General

- Dimensions [HxWxD]: 283 x 240 x 95 mm
- Temp. in storage: -20 to +55 °C
- Temp. operation without water: -20 to +55 °C
- Temp. working with water: +1 to +55 °C
- Protection class: IP 44 (vertical mounting)
- Relative humidity: up to 95%, non-condensing

Hydraulic parameters

- Supply connection: 3/4" male thread
- Inlet port: 3/4" male thread
- Working pressure*: max. 10 kPa (0.1 bar)
- The tank any provided by the customer.
Its parameters (capacity, dimensions) are configurable.

Soil probe

- Length: 305 mm
- Diameter: 32 mm
- Protection class: IP67
- Cable length*: approx. 120 cm

Radio communication

- Communication module: uBlox SARA R412
- GSM, GPRS, EDGE: 850/900/1800/1900 MHz
- 2G, NB-IoT, LTE Cat. M1: band 3, 8, 20

Power supply

- Built-in 6 V alkaline battery pack (4x1.5 V)

Soil probe / measuring system

- Conductivity of the soil solution (EC_w)
 - » Measuring range: 0 to 4.00 mS/cm
 - » Resolution: 0.001 mS/cm
 - » Relative error: ±2.5%
- Soil salinity (MCI)
 - » Measuring range: 0 ÷ 5.00 g/l
 - » Resolution: 0.01 g/l
 - » Relative error: ±2.5%
- Soil temperature
 - » Measuring range: -20 to +50 °C
 - » Resolution: ±0.1 °C
 - » Absolute error: ±0.1 °C
- Relative humidity of the soil
 - » Measuring range: 1 to 95%
 - » Resolution: 0.1%
 - » Relative error: 2.5%



* Customization possible