

# Vision 2

**A versatile internet enabled Irrigation Controller and supervisory system**



**Utilizing the most advanced technology Goldtec is now offering you the *VISION 2***

It is an **Internet enabled controller** so the use can control everything from a **PC or Smartphone**.

**An Irrigation control system for the 21<sup>st</sup> century.**

- Very friendly operation with large graphic LCD and wide key board
- Highly flexible construction
- Controlling local I/O devices AC or DC
- Suitable for open field projects or greenhouses
- Handling systems of multiple irrigation lines
- Valves can be irrigated individually, in sequence or in groups
- Reading number of input sensors
- Storing a large number of programs
- Detailed events reporting
- Central control via PC and windows oriented software
- Communication via the internet to PC, Tablet or Smartphone
- Handling many fertilizers injected locally or centrally
- Wide options of fertigation dosage modes
- Flushing automatic filters by time or pressure differential sensor
- Detecting and eliminating various system malfunctions
- Irrigation by soil moisture
- Dedicated Weather Station enabling irrigation by evapo-transpiration, rain delay function and enabling frost protection programs



## ■ Flexible hardware construction

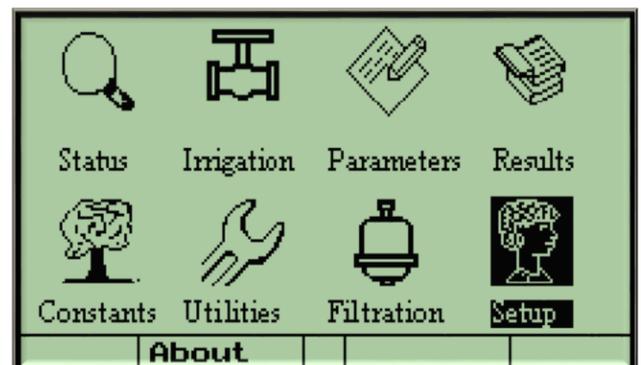
- Local outputs DC or AC constructed from boards of 16 outputs/ 8 inputs
- Up to 64 outputs and 32 inputs connectable

## ■ General features

- Handling multiple irrigation lines
- Flexible and user changeable network definition
- A large pool of irrigation programs, each program contains the sequence of participating valves, water and fertilizer dosage, operation timing and conditions
- Valves can be irrigated individually or in groups defined as library groups or single use groups
- Handling various water sources
- Cyclical irrigation with constant cycle of days or RUN LIST based. Cycles within the irrigation day, with large number of repetitions, intervals specified in hours: minutes: seconds.
- Irrigation by Soil Moisture, Rain Accumulation and Evapo-transpiration
- Flushing automatic filters by time and/or by pressure differential
- Conditions for starting, stopping, waiting and continuing programs, based on sensors' statuses, flow rates, states of system components etc. the conditions can be combined by OR/ AND connections
- Detailed events report with date and time stamps, can be scanned by various categories
- System STOP TIME or individual stop time per program may force operation stop at a desired time
- Protection and alarming mechanisms detect problems in the irrigation system, in the water supply, in the fertilization system, in the filtration, and in the control system itself
- Optional satellite outputs and optional grouping of inputs
- Accumulation of water and fertilizers, including special accumulation of last irrigation
- Main valves operation- delayed, advanced or simultaneously with the irrigation valves
- Battery backup for the memory of the variable data
- Special tools for the dealer to enable / hide features according to the specific needs, to set up default values, to define the resources allocation

## ■ Comfortable programming

- Large graphical LCD with back illumination for good day and night visibility
- Full numeric key pad that serves also for direct jumping into important subjects
- Position dependent Function Keys
- Special keys for movement inside and between screens
- Built in bilingual software. Switching languages by a single key stroke



## **Weather station**

- Fully integrated weather station
- The Dream Weather Station features the following sensors:
  - Evapo-transpiration -- Solar Radiation --- UV Radiation --
  - Barometric Pressure -- Temperature--- Humidity –
  - Dew point -- Wind Speed -- Wind Direction --
  - Daily Rain -- Rain Rate.
- Rain delay feature with its own designated screen
  - Feature will suspend irrigation for a planned period dependent on accumulated rain period and planned number of rain days.
  - Email message will be triggered when rain delay is activated.
- Evapo transpiration (ET) feature with its own designated screen
  - ET values automatically downloaded from weather station daily.
  - If ET feature selected then irrigation will be enabled based on ET value.
- Frost Protection feature with its own designated screen.
  - Frost protection will be enabled when critical plant temperature (user defined) is reached.
  - On activation of frost protection all other irrigation will be suspended.
  - Manual activation option.
  - Email message will be sent when temperature crosses a particular point and when frost protection is activated.



## **Fertilization**

- Handling two types of fertilization sites, local sites which serve individual irrigation lines, and central sites that serve multiple irrigation lines (6 per line)
- Fertilizing in three stages: pre-watering, fertigation and post- watering
- Continuous or proportional injection specified in the following terms:
  - litres of fertilizer per each cubic meter of water
  - seconds of fert per each minute of irrigation
  - sec:min of fert per each cubic meter of water
  - litres of fert per each minute of irrigation
  - proportion calculated from the division of the fert dosage by the water dosage
  - Bulk injection specified by time
  - Bulk injection specified by volume
- A special "water before" value for the first local fertilizer, separately from the other fertilizers
- Handling fertilizer injectors with and without fertilizer meters
- Handling booster pumps of Venturi injectors

