

IRRIGATION SCHEDULING

Schedules and executes irrigation events through a web-based application on a computer or smartphone. Graphical, map-oriented user interface allows for easy schedule input with reduced potential for error. Pumps and irrigation valves can be independently controlled to avoid risk of pump deadheading against closed valves.

Applications

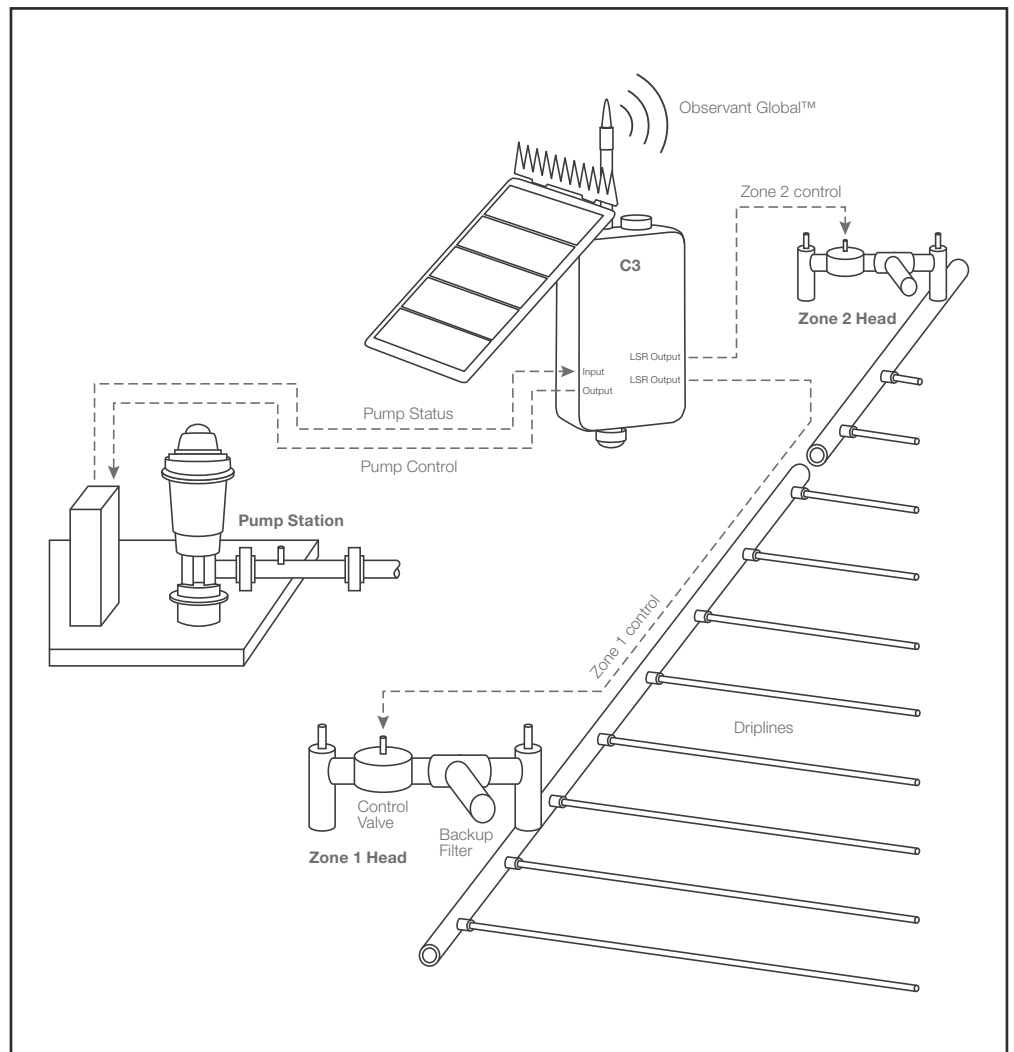
- Irrigation management.

Related Solutions

- Irrigation System Health Monitoring.
- Soil Moisture Monitoring.
- Weather and Environmental Monitoring.
- Pump Management.

Observant Platforms

- C3 Gateway.
- C3 Cell.
- C3 Node.



I/O Type and Connection

Observant LSR Card: The LSR Card is necessary to interface latching solenoid valves to a C3 telemetry platform. Connect the LSR Card signal inputs to the C3 Dual-Mode Outputs 1, 2 and 3. Connect the LSR Card power inputs to the C3 Power output. These connections can be easily made with the supplied cables. See OBS-USR-TN001 Tech Note: C3 Latching Solenoid Driver Card.

Latching Solenoid Valve: Connect up to four, 2-wire, 12 VDC latching solenoid valves to the LSR Card outputs. See OBS-USR-TN001 Tech Note: C3 Latching Solenoid Driver Card.

Electric Pump: Interface to an electric pump using one or two 12 VDC coil, normally-open relays as described in Note: OBS-USR-TN004 Tech Note: Electric Pump Control. The pump control relay(s) are connected to digital outputs on the C3. Interfacing a C3 or other telemetry platform with an electric motor should be performed by a qualified electrician.

Output Limitations: One C3 telemetry unit can control up to four valves and one pump fitted with a Run-Off-Auto switch. Controlling more than four valves and one pump or controlling a pump with dual relay (latching start/stop) control will require more than one C3.

Capabilities

Time-Based Irrigation Scheduling: Use the Observant Global™ platform to program and implement time-based irrigation schedules using a map-based user interface on a computer or smartphone. One C3 telemetry unit is required per each four zones.

Manual Irrigation Control: Manually turn pumps and valves on and off using a computer or mobile device.

Record History of Irrigation Events: Record irrigation history to correlate irrigation activity with crop and weather conditions. Combine with the Flow and Line Pressure Monitoring solution to also record the volume of water used per irrigation event.

Pump Delay: Schedule a pump start delay after the opening of the first valve in an irrigation schedule to avoid the possibility of deadheading. Also, schedule a delay of the closing of the last valve in the schedule until after the pump has shut off.

Integrate with Other Observant Solutions: Use Flow and Line Pressure Monitoring in conjunction with Irrigation Scheduling to verify proper execution of scheduled commands and alerts on any problems.

Supported Devices

- Observant LSR 4 channel latching relay driver.
- DC latching solenoid controlled valves.