



Winterization Precautions for Flow Sensors

In colder climates, irrigation systems need to be winterized to prevent damage caused by water freezing in the pipe, valves, fittings and attachments. The generally accepted practice at the end of the growing season is to shut off the water supply and purge water from the system using compressed air.

This is accomplished by connecting a portable air compressor to the system either at its source or highest point of elevation, charging the system with air and operating the zone valves so that the air drives the water out of the piping through the sprinkler heads or open drain valves.

The air compressor must be sized to provide enough air volume at sufficient pressure to fill the pipelines adequately and provide sufficient force to expel the water through the increasing volume of the emptying pipeline. This annual process should be performed by adequately trained personnel using appropriately sized equipment. Make sure the compressor discharge pressure is no higher than the operating pressure of the irrigation system. Compressed air can be extremely dangerous may cause damage to irrigation system components and harm to operators and bystanders. Use extreme caution when performing this service.

In most systems, Creative Sensor Technology impeller type flow sensors may be left in place during winterization. The impeller bearing and shaft can operate in air. They do not need water for lubrication. The low mass impeller can not be "overspun" by velocity surges as water meters with gear trains can be.

However, if the flow sensor is installed immediately downstream of the air injection point, or if the pipeline compressed air exceeds any of the following conditions:

- the working pressure rating of the sensor; 240 psi for the tee type sensors and 150 psi for the saddle type sensors
- a maximum velocity of 20 fps for more than 2 hours time
- temperatures above 150°F

then remove the sensor insert from its mounting device.

Install a Creative Sensor Technology Plug Assembly, Part no. FSI-T00-003, in place of the sensor insert. Replace the sensor after winterization is complete or before the system is reactivated in the spring.