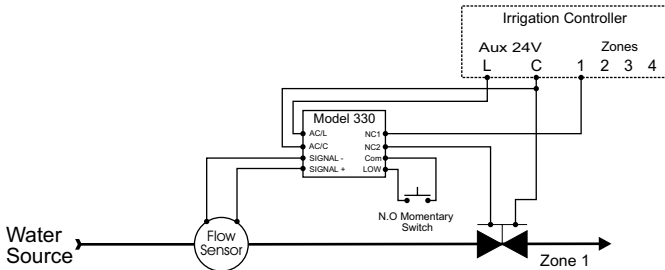


**SITUATION #1**

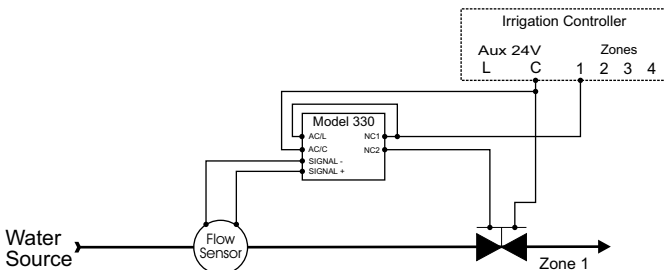
**Simple, Single Zone, High Flow Shutdown**

The Irrigation controller sends 24VAC to open the master or zone valve. If an unusual event occurs, where the flow exceeds expected levels for longer than would be normal to charge a line, the Model 330, receiving a signal from the flow sensor, blocks this signal forcing the valve closed. This limits the loss of water and potential damage it might occur.

The Badger® Model 330 can be wired and programmed to either to latch the valve closed until the problem is investigated and system reset manually as shown in Figure #1; or to automatically reset at the end of each irrigation cycle as shown in Figure #2.



**Figure 1**



**Figure 2**

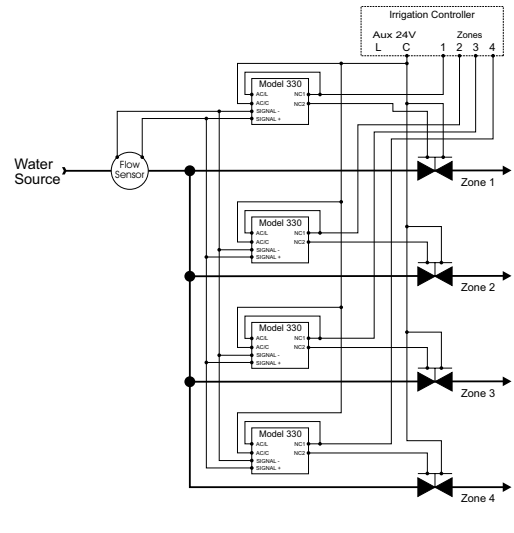
**SITUATION #2**

**Single Flow Sensor and Series 330 to Protect Multiple Zones**

One flow sensor is installed into the main line and connected to a single Model 330 Set-Point Controller. The common wire of all of the zone valves feed by this main line are wired to the normally closed contacts of the Model 330. If the flow in the mainline exceeds the expected flow rate for longer than the normal time anticipated, the relay in the 330 latches open closing any valve that is open. See Figure #3

This cost effective approach works well if all the zones are sized to have about the same flow rate; or the combinations of zones are carefully selected to result in about the same flow rate during each irrigation cycle. Since the valve common is wired to the N.C. contacts of the Model 330, once a high flow is detected on any of the zones, none of the zones will operate until the Model 330 is reset. To avoid control and power supply issues, this approach works best if all the zones are controlled from a single controller.

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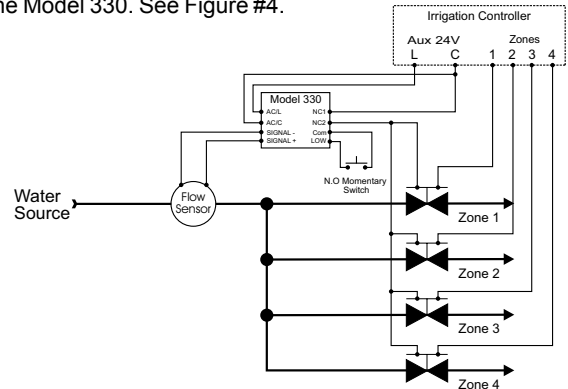


**Figure 3**

**SITUATION #3**

**Single Flow Sensor and Multiple Model 330's to Protect Multiple Zones**

If the flow rate in each zone is different, the single set-point controller approach of situation #2 does not work well. For example, while a flow of 50 GPM might be normal for one zone, it might represent a serious leak in other. Using one Model 330 for each zone or zone group, is a good solution. One advantage is that the Model 330 acts on only one zone, allowing the other zones to continue to operate normally. This of course requires that only one zone at a time be active on each irrigation cycle; and, the controller must be wired to power only the Model 330 associated with the active zone. Any Model 330 relay that latches will automatically reset at the end of that cycle. As a result, if the problem still exists at the start of that zone's next active cycle, the flow rate will again be above normal until detected and acted upon by the Model 330. See Figure #4.



**Figure 4**

**DAB-014-01**

4-09



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**BadgerMeter, Inc.**

6116 E. 15th Street, Tulsa, Oklahoma 74112  
(918) 836-8411 / Fax: (918) 832-9962  
[www.badgermeter.com](http://www.badgermeter.com)

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