TECH BULLETIN 806

Connecting an ELF-SP3 sensor to a Rain Machine controller

Creative Sensor Technology's ELF– SP3 flow sensor provides professional grade quality and performance at a residential price. The ELF measures flow rates from 0.20 to 20 gpm, may be installed underground, does not need to be removed in the winter. SP3 versions produce a scaled pulse output to interface with irrigation controllers like the Rain Machine.

Additional Items Required:

1. Cable to connect the installed flow sensor to the irrigation controller
2. One 1K OHM 1/4 watt resistor 
3. One blue Wire Nut (WN-BL) to connect resistor to flow sensor lead.

Wiring:

1. Wire leads from the flow sensor may be extended up to 1,000 feet using #20 gauge twisted three wire cable.
   Shielded cable is recommended for distances over 100 feet or where cable may run next to other conductors carrying higher power loads that might cause signal interference.
2. All wire connections should be made using waterproof connectors, such as 3M 316IR or 3M DBY.
3. Make all wire connections with the power to the controller OFF.
4. ELF SP3 models require 24 VAC to power the circuit so they have three wire connections to the controller.

See diagrams and instructions on other side.

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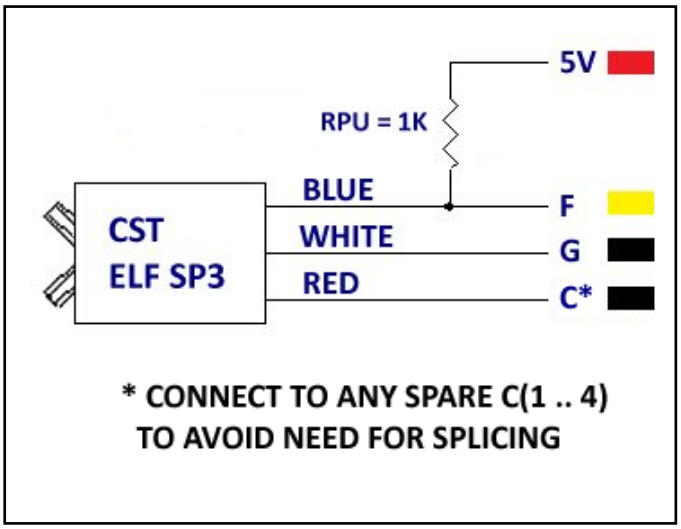
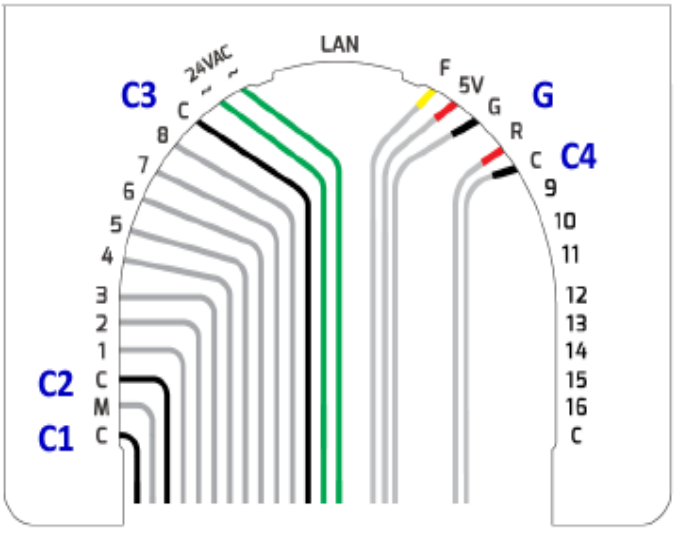
Rev A TB80620

Flow Sensor Connections to Controller:



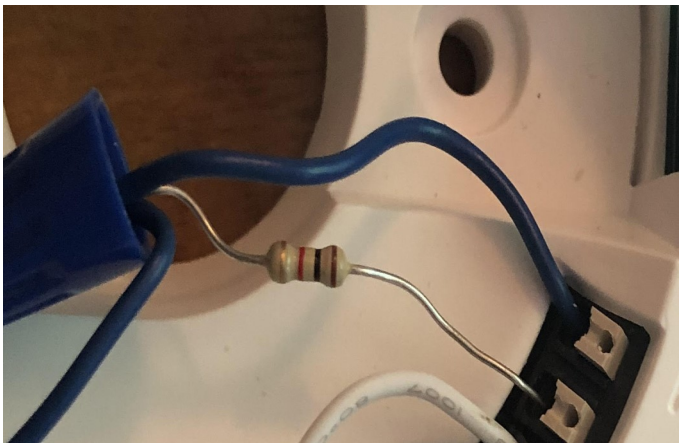


1. This diagram of the Pro series controller terminal connections has four terminals marked **C .** Use any one that is available to connect the red flow sensor wire.

2. Connect the white wire from the flow sensor to the **G** terminal.

3. Make a three-way connection using the wire nut to connect one end of the resistor to the blue lead from the flow sensor while also leaving a four inch blue lead to connect to the **F** terminal.

4. Connect the other end of the resistor to the **5V** terminal.



Program the Controller:

Finally, download and open the Rain Machine to program the controller for a flow sensor and enter 1 gallon per pulse.