

Flow Meter Pulser Requirements

When a flow meter is connected to the flow input on the Cloudmaster controller it will log water consumption for each watering event so long as only one station is on at any one time. After the unit has 'learned' the correct flow rate for each station the unit will also indicate an alarm and step to the next station if a stations measured flow rate ever varies from its standard flow rate by more than an allowed tolerance.

The flow meter must, however, be of the correct type.

Suitable Types

Type 1. A voltage free, momentary closing contact type. These are also referred to as a 'contact head' meter. Put another way, the pulser unit is simply a switch which closes and then opens back up again each time a unit volume of water passes through the meter. They are always a two wire device (Note: this is not saying all two wire devices are suitable. See below). These are the safest and easiest type to use.

Type 2. Open collector output type. The Cloudmaster input has a pullup resistor to 12V. Electronically minded folk will recognise that a pulser type with an open collector output will pull this voltage to ground (or close enough to it) and thus also work. However, pulse width must be at least 10mS and the voltage must be pulled down to within at least 1 volt of ground.

These devices usually have 3 or 4 wires. It is beyond the scope of this information sheet to tell you how to connect your flow meter, but the Cloudmaster terminals that you will probably need are 'Flow input', '12V' and circuit ground which is the far right hand terminal of the four way terminal block (**NOT** solenoid common). The 12V output on early Cloudmaster units was marked 'Spare'. Note that some pulsers may need a series resistor in the circuit and if you connect it up incorrectly then you could permanently damage the pulser unit. Be sure to consult the units documentation carefully.

Unsuitable Types

Opto types have a led shining on a spinning mirror face. The reflection is detected by a photo detector device. These devices are from 2 to 4 wires and often give a current pulse, rather than voltage or resistance pulse output. They can also have a waveform shape that indicates the direction of flow of the fluid through the meter. Even though these types may change the input voltage they will not work. These types are not suitable for Cloudmaster.