Fogger Control

The fogger function includes both temperature and timer based functions.

With appropriate settings, the fogger function can be used for fogger/misting systems, cool cell pumps or other auxiliary cooling functions.

How it works

At a certain temperature, fogger control is activated.

This temperature can be determined in two ways -

- Interlocked - Temperature Offset above Set Temp

Or

- Non-Interlocked - Fogger Set Temperature

Once fogger control is activated, there is a small "switching band" - typically 1^0.

The fogger is switched on if temperature rises above the switching band, and stays on until it falls below the switching band.

The switching band is aimed at avoiding short cycling due to minor fluctuations in readings.

Once the fogger is switched "on", a timing cycle is activated. For example, the fogger is powered up for 2 minutes every 10 minutes. This helps to economise on water user. (Running the fogger continuously can waste a lot water.)

If the "Fogger" output is used for some other cooling function - such as a cool cell pump - the timer function is usually deactivated, so the "Fogger" wil run continuously.

To check whether your system has interlocked or non-interlocked control - look in the Test Outputs and Settings menus.

If your system has a "Fogger" but no "Fogger Set", your system has interlocked fogger control. This is the standard version.

If your Settings menu has a "Fogger Set Temp" window, your system uses non-interlocked fogger control. This is the non-standard version.

If your system has standard interlocked control, it can be upgraded to non-interlocked for a modest software upgrade charge.

User Settings - Interlocked

With interlocked fogger control, no user settings are required.

The fogger is activated at a "Temperature Offset" above Set Temperature - for example, 15^0.

With a 15^0 offset, fogger control is activated at 85^0 if Set Temperature is 70^0, or 80^0 if Set Temp is 65^0, and so on.

Adjusting Set Temp automatically adjusts the fogger temperature.

User Settings - Non-Interlocked

With non-interlocked control, fogger operation is triggered according to Fogger Set Temp.

This is independent of "Set Temp". Set Temp controls all the other (interlocked) functions such as ventilation and heating.

Check your Set Temp value to make sure you set the fogger value higher than Set Temp.

Manual Setting

If desired, you can set the fogger manually - either full on, full off, or an intermediate (timing) cycle.

To set a manual level go to "Manual Override" - set "Override Sure?" = Yes, then go to the "Fogger" device to the desired value. For example, 0% = fully off; 100% = running continuously.

Whilst it is set to a manual level, the unit shows "Alarm Warning" : "Manual Override" to remind you.

To return to normal operation go to "Manual Override" - set "Override Sure?" = Yes, then go to "All Automatic" and press the button once.

Examples -

Use Manual Override Fogger = 0% to prevent fogger operation - with very young animals.

Use Manual Override Fogger = 100% to check that all the nozzles are clear.

Use Manual Override Fogger = 15% to wet the room before pressure washing.

Note : To get timing cycles with a manual setting, an additional timing cycle must be set up by your installer.

Technical

Configuring the fogger has two elements - Control Settings and Output Type/Setup.

Note : For default values - see Logbook.

Description

Fogger switches ON (starts cycle) when

Actual > Set Temp + Fogger Offset + Fogger Band

Or

Actual > Fogger Set Temp + Fogger Band

Fogger switches OFF (stops cycle) when

Actual < Set Temp + Fogger Band

Or

Actual < Fogger Set Temp

Where

Actual = Average Reading of Active Room Sensors

Fogger cycle

Fogger cycle total time = Fogger Short Cycle e.g. 10 minutes

- Fogger output = 100% for Fogger Short On Time then

- Fogger output = 0% for balance of Fogger Short Cycle

Fogger is always OFF if -

No Actual temperature (No Sensors)

Control Settings : Fogger

Fogger Offset

Starting point for fogger control.

(Note : This is not present in non-interlocked

Fogger Band

Switching differential for fogger control. Increase if required to prevent incomplete cycling.

Fogger Short Cycle

Main timing cycle. Increase as required to allow a good interval to allow floors to dry slightly to avoid excess water use.

Fogger Short On Time

On time during a timing cycle. Adjust as required to get reasonable wetting without excessive run off.

Note : Special fogger functions also have an optional On Table and/or Long Cycle - refer to special documentation or Technical Support if you find settings not mentioned here.

Output Types & Setup

The default output type for Fogger is usually On-Off. In this case, timing cycles are only possible using the Fogger Short Cycle under automatic control.

Any value other than 0% or 100% is ignored by On-Off channels.

If desired, set the Output Type to "Simmer", then adjust CYC and [X] (multiplier). This allows users to set a "manual" cycle, during washing down, say.

For example, CYC 60 X 10 gives a 10 minute timing cycle setting a Manual Override value of 15% will give a 1½ minute in 10 minutes cycle.

Cool Cell Pumps and other uses

It is not usually necessary to use a timing cycle with a coolc cell pump or other auxiliary cooling.

To diable the timing cycle, set the Short Cycle Time and On Time to the same value (e.g. 1 minute and 60 seconds.)