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Diagnosics 501 Diagnostic Display on SKG Humidifier

We sometime get calls from technicians on site that are not sure how to troubleshoot a SKG that is not reacting to control signal.

Where to start looking? and what to do?

The easy way and the first thing to verify is the #501 "Digital input" in the sub menu diagnostic of the SKG controller.

```
DIAGNOSTICS      501
Digital input
Input #1: ON
Input #2: ON
Input #3: ON
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On this display you can very easily make sure that the 3 digital / safety contacts are closed.

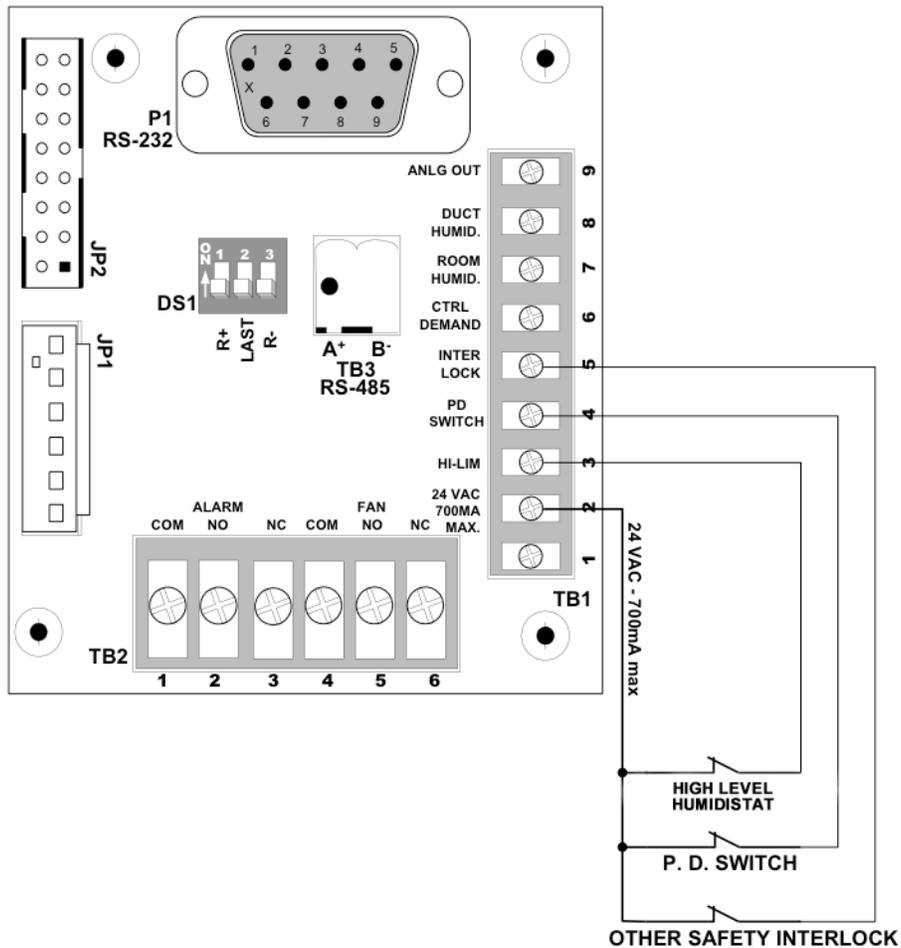
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These 3 contacts are the following and connected as per the below diagram

- Input #1: High Limit Humidistat on/off, connected between terminals 2 & 3
- Input #2: Air Flow switch, connected between terminals 2 & 4
- Input #3: Interlock contact, connected between terminals 2 & 5



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If one of these contacts is open, the SKG humidifier will not start,

Thanks to this Diagnostic display the technician do not need any multimeter nor to make test on each of the safety devices to be able to find which contact is open, the answer is as easy as pressing on the menu button on the control panel of the humidifier.

If the High limit humidistat is not properly set, this one will open as soon as the SKG is producing steam, usually it is because this one is placed too close from the steam distribution grid. If this contact is open, an alarm will flash.

Air Flow switch is installed to ensure that the SKG humidifier will not operate if there is no air circulation in the duct. Sometime the air flow switch probe is not properly inserted or not fully inserted into the duct. When this contact is open, no alarm will be displayed.

At last, the interlock contact is sometime used as an enable contact from the Building management system (BMS). When this contact is open an alarm will flash.

In some cases, these safeties are directly connected to the BMS so that it will control the humidifier and other equipment based on the signal received. Sometimes, jumpers connection to the terminals is forgotten during the installation process. It is important to ensure that jumpers are connected to those terminals in order for the humidifier to operate at startup.

Remember: if only 1 of these 3 contacts is open, the SKG will not operate.

On the same Diagnostic sub menu you can find a lot of information that will help you to know about the proper operation of the SKG humidifier such as, input control voltage, water level sensor reading, combustion blower speed, status of the gas valve, status of the anti-foaming sensor.

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