VISIONS 3000 LINUX 2.52
CONTROLLER INTERFACE

Controller/Machine Interface

Machine Interface Setup: (TOOL MOTION) CONTROLLER SHUTDOWN

Whenever the Hot Runner has an alarm condition, it will make (or break) the relay contacts. You can control whether to "Make" or "Break" the contacts in the software by selecting the "ALARM RELAY INVERTED" function in the "Alarm Actions" panel.

You configure the Hot Runner to respond to machine movements in the "Alarm Actions" panel of the software.

In the Software, select the "TOOL MOTION" alarm action (example: Standby)

Then Select the "Tool Motion": "Minimum Machine Cycles" (per minute) which the Hot Runner will accept before rising an **alarm**

Review the Circuit Diagram at the bottom of this page.

For Example, if you select "Standby" for Tool Motion: Action, and set the "Tool Motion": Minimum Machine Cycles to "5", you expect the machine to make at least 5 cycles/shots per minute. So long as the Injection Molding Machine moves 5 times or more in every minute, no alarm will be raised.

Should the machine stop, or slow down to under 5 cycles per minute, the Hot Runner control will raise an alarm. This alarm has a 'HOLD OFF" time associated with it, and the actual alarm condition is held off until the alarm hold off time has expired. During this time the user is presented with a count-down dialog, allowing them to cancel the alarm or continue waiting for the machine to move (speed up) again.

The Simplest & Easiest way to accomplish Tool Motion Shutdown is to fit the injection molding machine with a good quality Micro-Switch which opens & closes as the platen on the molding machine moves.

Connect the two contacts of the micro-switch to pins #3 & #4 of the VISIONS 3000 top box interface connector (located on the back of the top box). This way the VISIONS 3000 will receive an "Open" & "Closed" signal once per machine cycle. You are then able to set the minimum number of cycles for controller stand-by to be activated. You do this in the "Tool Motion" section of the "Alarm Actions" panel in 'Set-up"

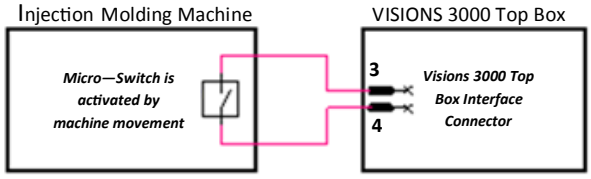
Pin #3 – Tool Motion – Opto-Isolator or Micro-Switch Input
Pin #4 – Tool Motion – Opto-Isolator or Micro-Switch Input

Pins #3 & #4 go to a KB8141 Opto-isolator or Micro-Switch. The Injection Molding Machine provides a relay or switch on these pins, which opens and closes once per machine cycle. This way the VISIONS 3000 knows the Injection Molding Machines Platen is moving.

NOTE:

This is the simplest method, and it is likely that there is already a Micro-Switch mounted on the machine.

(It is possible you will be able to tap off the existing Micro-switch depending it is wired with the Molding Machine)



VISIONS 3000 LINUX 2.52

CONTROLLER INTERFACE

Machine Interface Setup: (RUN HOLD-OFF) CONTROLLER SHUTS MACHINE DOWN

Pin out detail of Machine Interface Male Connector
Pin #1 – Run Hold off – Volt-free contact output
Pin #2 – Run Hold off – Volt-free contact output

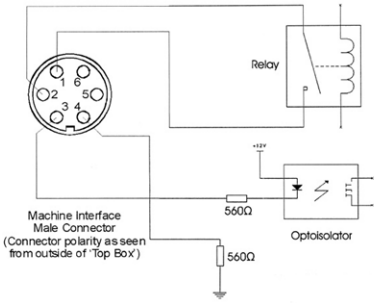
Pins #1 & #2 come from the contacts of a 6 amp / 240vac relay and can be used to halt or stop the Injection Molding Machine

The VISIONS 3000 will open the relay if it detects an error, which has its Alarm Action set to anything other than "IGNORE".

You will know when the VISIONS 3000 is stopping the Injection Molding Machine when the "Yellow Alarm Bell" is visible in the bottom-right on the status bar:

On the Injection molding machine there will need to be a digital input, which is either pulled high or low with a resistor, and which is pulled high or low when the relay is closed.

The Injection Molding Machine must be configured to only operate if the input state is correct. Customers often wire the relay or configure the molding machine the one way or the other, so we are able to" tell the VISIONS 3000 to use the relay in either normally "OPEN" or normally "CLOSED state,



Pin #5 – Not Connected
Pin $6 – Not Connected

In the VISIONS 3000 2.52 top box, pins #5 & #6 connect to a second relay which can be used to turn "ON" or "OFF" a audio/visual alarm unit.

Connector used in top box:

Bulgin PX0738/P (Chassis Plug)

Mating Connector:

Bulgin PX0739/S (Cable Socket)

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