Machine Interface/VersaCall Modules

Switch Contacts are methods of connecting external inputs into a VersaCall Module. Switch Contacts are Dry Contacts. The number of contacts and functionality vary based upon the VersaCall module being used.

Dry Contact

A dry contacts means that there should be no voltage/current in the circuit. It should be the opening/closing of a (1) mechanical switch, (2)PLC relay interface, or (3) the output of a relay. The outputs of a relay should not be shared with any other devices. Ensuring there is no voltage will protect the circuitry in the VersaCall module. All VersaCall modules support normally-open or normally-closed type of contacts.

Production Performance Measurement Using Switch Contacts

Switch Contacts typically have only a handful of straight forward uses. The most common uses are the following:

- Downtime – This contact is used to tell when the equipment is in a downtime state (not producing product). It is up to the customer to decide what constitutes downtime. Depending on the equipment this can come from a couple different sources. This can be the most difficult type of contact to isolate. Usually the easiest way is to grab it is from a PLC or some sort of control circuitry. A lot of times this can come from a non-Auto Run state. It is even possible to connect multiple relays in parallel to achieve the desired result. For example, the equipment could be considered down when there is a power loss, the E-stop has been activated, or there is no power to a certain motor. Feel free to ask VersaCall for assistance in this matter, though we will not be able to help you much with the details of your machine, we usually can help you out if you can describe your problem to us.

- Count – This contact is used to determine a part count coming out of the equipment. Depending on the type of equipment, this could come from a variety of different sources. This could come from a sensor such as an electronic eye, a signal such as a machine cycle, or even an external button press from an operator.

- Equipment Fault – This type of contact is used to determine when the equipment generates a fault. This could possibly come from a PLC or other control circuitry of the equipment.

- Sensor Limit – This type of contact is used to determine when a sensor reaches a critical limit. This required a special type of sensor to trip a contact at a certain point. Common examples are the monitoring of temperature, pressure or some fluid level.

Connecting a VersaCall Module to a Switch Contact

This can vary depending on the type of input module used. A Wireless Switch Contact Module for example has terminal strips on its face plate that can be wired to directly. A Reason Code Module or a Data Input Module typically use a Breakout Box as an interface to the contacts. A Breakout Box will primarily be a terminal strip in a plastic ABS enclosure. Depending on the customers own electrically wiring practices, codes and guidelines, certain things such as conduit, shielded cable, specific wiring gauges, etc. may be required.