SC10 Single Pump Controller

Starter Design to:

Maximise Safety

Maximise Pump Reliability



Pump Reliability

What's the Problem?

Pumps left in Manual will overheat and destroy the seal.

On most pump starter panels, when the operator wants to start a pump, they use a Manual or Hand Start. They switch the selector pump to Manual.

The real problem happens when they leave the pump running in Manual. Once the water level drops, the pump runs dry and the seal overheats and fails.

This is a frequent cause of failure of dewatering pumps.

What's the Solution?

On most start panels the only way the operator can start the pump is to use the Manual Start.

With the SC10 you should connect a Start and, maybe, a Stop pushbutton.

The SC10 has Auto Start and Stop inputs. When the Start pushbutton is pressed the SC10 will start the pump and, later, when the levels is pumped down, the SC10 will stop the pump normally. So the damage is prevented.

Safety

What's the Problem?

Some dewatering pump controllers require the adjustment of the Stop Current to be made inside the starter panel / switchboard. To adjust the stop current requires running the pump. So with those controllers you need to work in a live switchboard. This is not safe. It is not acceptable.

What's the Solution?

With the SC10 you do not need to work inside the switchboard.

You use adjustment pushbuttons on the door of the switchboard.



Pump Reliability

Mount Start and Stop Pushbuttons on the Front Door

Install Start and Stop pushbuttons on the door for the operators. This is so they do NOT use the Manual/Auto/Off switch and leave the pump running dry – thus damaging the pump.



Safe Adjustment of Stop Current Setpoint

Option 1: Stop Current Setpoint Adjustment Buttons on the Door

Mount adjustment pushbuttons buttons on the door of the switchboard like this:





Function of the buttons:

The 2iB SC10 is usually used as a Snore Controller. A pump snores (sucks air / stops pumping) when the water level drops too low. When this happens the current drawn by the pump motor will drop. These buttons allow adjustment of the current at which snoring and detected and the pump stops. The snoring and thus stop current varies depending upon the pump and its hydraulic system and so often requires adjustment on-site.

- Auto-Set: Press this button when the pump is snoring and the SC10 will automatically adjust the Stop Current based on the measured Current.
- Up and Down: These allow the current setpoint to be manually adjusted up and down. Depending on the pump and hydraulics, the setpoint may need adjustment to achieve optimal detection of snoring.

Current Display Window

The 2iB SC10 has a display of the motor current. It is very useful for the operators to see the current display when adjusting the stop current. So including a window in the switchboard door helps.

If you don't want the operators to adjust the setpoint, use a cover or door.

If you want only maintenance staff and not normal operators to adjust the Stop Current, then either:

- Mount the Pushbuttons behind a cover or door like this
 - You could use a transparent plastic cover or a steel/stainless door.



Switchboard Door

• Or, use lockable pushbuttons.



Option 2: Front-mount the SC10 (like a Circuit-breaker)

An alternative is to mount the SC10 through a cutout in the door like a circuit-breaker.



The SC10 is not dust, weather or water-proof, so if you mount the SC10 this way, then use an outer cover or outer door.



Section

Or, with a cover, like this:





Wiring the Buttons





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