

The Redi-Flo VFD can indicate the presence of a pending fault by the use of status lights on the digital readout display see Figure 13 below.

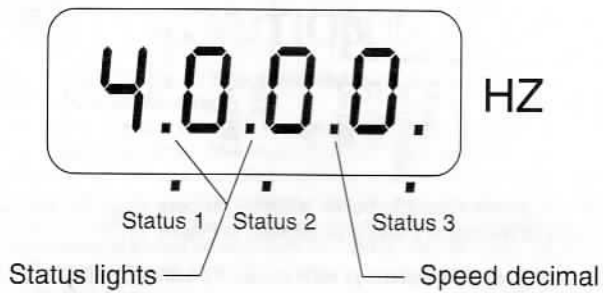


Figure 13

Status Lights

Status 1

- Flashing: Input Current limit has been reached. Even if speed dial is turned to increase speed, the speed is locked and will not rise.

Status 2

- Flashing: Motor Overload fault is pending. Motor current has exceeded maximum allowed current (5.5A-RF2 & 7.5A-RF4) and Redi-Flo VFD will trip on an overload (OL1) fault in 60 seconds if speed is not turned down (load reduced).




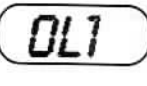

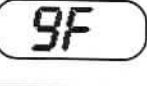
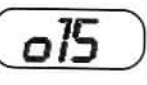
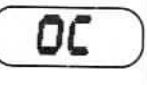

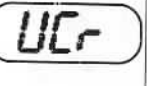

Status 3

- Flashing: Undercurrent fault is pending. If the speed is not turned down within 8 seconds, the Redi-Flo VFD will trip on an under current (UC) fault.
- Solid: Under current trip/fault is disabled.

TROUBLESHOOTING

Redi-Flo Variable Frequency Drive

The Redi-Flo VFD will display an fault if any major fault occurs.

If the display shows this:	The Fault is:	Which may be caused by:	Remedy:
	Over temperature	<ul style="list-style-type: none"> The VFD is overloaded The VFD is thermally overloaded Defective VFD 	<ul style="list-style-type: none"> Reduce the load by reducing the frequency Check that the VFD's max. amb. temp. is not exceeded and it has proper ventilation Have VFD checked by Grundfos technician
	Under voltage	<ul style="list-style-type: none"> Input voltage too low Input wire run too long Input wire size too small DC bus is charging 	<ul style="list-style-type: none"> Reset the VFD, if it cuts out again, check voltage at VFD and power source to determine where voltage loss has occurred and increase voltage as needed Check input 120,230 voltage wiring termination Check input voltage
	Over voltage	<ul style="list-style-type: none"> Input voltage too high 	<ul style="list-style-type: none"> Reset the VFD, if it cuts out again check voltage at power source and reduce voltage as needed
	Motor overload	<ul style="list-style-type: none"> Motor drawing high amps (5.5A-RF2/7.5A-RF4) Locked rotor Defective motor 	<ul style="list-style-type: none"> Check pump for blockage or excess wear, repair or replace as needed Check F08 operators adjustments on pg.13
	VFD overload	<ul style="list-style-type: none"> The VFD is overloaded Defective VFD 	<ul style="list-style-type: none"> Reduce the load by reducing the frequency Have VFD checked by Grundfos technician
	Ground fault	<ul style="list-style-type: none"> Motor is grounded Cable is damaged Transistor shorted 	<ul style="list-style-type: none"> Check motor and lead with megohmmeter and repair or replace as needed. The insulation resistance must be greater than 1.5 M Ω Have VFD checked by Grundfos technician
	VFD disabled	<ul style="list-style-type: none"> Remote connection contact open Jumper between terminals 1-10 removed 	<ul style="list-style-type: none"> Check external device operation Check Jumper
	Over current	<ul style="list-style-type: none"> Motor or motor lead defective/damaged VFD amp draw above 16A Defective motor Defective VFD 	<ul style="list-style-type: none"> Reduce the frequency Check motor and lead with megohmmeter and repair or replace as needed. The insulation resistance must be greater than 1.5 M Ω Check pump for locked rotor condition Have VFD checked by Grundfos technician
	Under current	<ul style="list-style-type: none"> Pump running dry or shut off or at pump off Motor current below UC (F10)setting 	<ul style="list-style-type: none"> Check water level, drawdown, pumping level and above ground pressure for these conditions Check pump for proper rotation Let motor cool and try to restart
	Restart delay	<ul style="list-style-type: none"> Under current restart is pending 	<ul style="list-style-type: none"> Pump will automatically restart after preset delay Set "0" on F11 to eliminate auto restart
	No Motor Load	<ul style="list-style-type: none"> Motor is not connected Motor thermal is open 	<ul style="list-style-type: none"> Check ambient fluid temperature Reduce motor load Connect motor to drive

*Do not use megohmmeter at Redi-Flo VFD output terminals.