## 6.2 iQpump Keypad Messages

## ◆ Pump Fault and Alarm Messages

The iQpump has a comprehensive set of dedicated pump alarms and faults that will alert the operator when the pump system has experienced any problems. A warning or fault message on the operator display indicates abnormal iQpump drive status.

## ■ Pump Fault Messages Generated

Table 6.2 Pump Fault Messages Generated

Digital Operator Display	Description	Cause	Corrective Action
EF1-7 Pump Fault S#	External Pump Fault	Digital input is closed.	Check incoming digital signal from external device.
FbL Feedback Loss <0032>	PI Feedback Loss This fault occurs when PI Feedback Loss Detection is programmed to fault (b5-12 = 2) and the PI Feedback < PI Feedback Loss Detection Level (b5-13) for the PI Feedback Loss Detection Time (b5-14).	PI Feedback source (e.g. transducer, sensor, building automation signal) is not installed correctly or is not working.	Verify iQpump is programmed to receive the PI Feedback source signal.
			Check to ensure the PI Feedback source is installed and working properly.
HFb High Feedback	High Feedback Fault Feedback signal is too high.	The feedback level has risen above P1-09 level for the time specified in P1-10. High feedback fault is active in Hand Mode, Auto Mode, Pre-charge and Thrust Mode when the drive is running.	Feedback level lower than the high feedback level (P1-09).
LFb / LW Low FB / Water	Low Feedback Level Fault Feedback signal is too low or water low input closed.	The feedback level has dropped below P1-07 for the time specified in P1-08 or water low input is active. Low feedback fault is active in Auto Mode when the iQpump is running. Digital input is closed.	Feedback level greater than the low feedback level (P1-07). Check incoming digital signal from external device.
LoP Loss of Prime <0032>	Loss of Prime Fault Pump has lost its prime.	If the output current drops below the P1-14 Prime Loss Level for the time specified in P1-16 and the output frequency is at fmax, a "Loss of Prime (LOP)" fault occurs  Possible cause: Dry Well, Air in System, No Water	Allow system to pump water again (must have resistance in pump).
nMS Set Point Not Met <0032>	Not Maintaining Set Point Fault Set Point cannot be maintained.	When the setpoint cannot be maintained for a time specified in P1-12, a "Not Maintaining Setpoint (NMS)" fault occurs. The function is disabled when the drive is not running and the PID is not active.  Possible cause: Blocked Impeller, Over-Cycling, Broken Pipe	Reduce the difference between the setpoint and the feedback smaller than the Maximum Setpoint Difference (P1-11).
oPE12 <0032>	Thermostat Fault Selection Fault	Both Normally Open (H1-xx = 83) and the Normally Closed (H1-xx = 87) Thermostat Fault inputs have been programmed	Only use one of the two fault inputs.

## 6.2 iQpump Keypad Messages

Digital Operator Display	Description	Cause	Corrective Action
PoC Pump Over Cycle	Pump Over Cycle Protection	VFD Controlled Pump exceeds number of Normal Operation to Sleep Mode Cycles. Cycle limit (P2-09) for time specified in P2-10.	Adjust sleep parameters to prevent system from cycling.
THMS Thermostat	Thermostat Fault	Digital input is closed.	Check incoming digital signal from external device.