



To start the pump, have the VFD Control be Fully on Keypad. You do this by pressing CTRL and then enter (right button).

Please note that the VFD supplied has been programmed to the following:

| Display Parameter & Name | Value |
|--|-------------------------------------|
| P200.000 - Control Selection | Keypad [1] |
| P200.001 - Frequency Control | Keypad [1] |
| P200.002 - PID Control | Keypad [1] |
| P200.003 - Toque Control | AI1[2] |
| P202.002 - PID Controller Setpoint (psi) - can be anywhere between 0-15psi as it scaled for this | 6 PSI |
| P210.000 - Min Frequency | 20Hz |
| P211.000 - Max Frequency | 100Hz |
| P220/21.000 - Accel/Deceleration time | 0.5s |
| P300.000 - Motor control mode | V/f Control (Closed Loop) [7] |
| P301.000 - Motor operating mode | MS: Velocity mode [-2] |
| P430.001 - Al1 Input Range | 4-20mA [4] |
| P430.002 - AI1 Min Frequency | 0Hz |
| P430.003 - Al1 Max Frequency | 100Hz |
| P430.004 - AI1 Min PID Value | 0 Psi |
| P430.005 - AI1 Max PID Value | 15 Psi |
| P600.001 - Process Controller Operating Mode | Normal bidirectional |
| P600.002 - PID Process Variable | Analog Input 1 [1] |
| P600.005 - PID Controller Speed Min | 0% |
| P600.006 - PID Controller Speed Max | 100% |
| P601.000 - PID: P Component | 2.5% |
| P602.000 - PID: I Component | 400ms |
| P603.000 - PID: D Component | 0.0 sec |
| P604.000 - PID Setpoint ramp | 15 sec |
| P605.001 - PID min setpoint | 0 |
| P605.002 - PID max setpoint | 300 |
| P606.001 - PID Acceleration time | 0.5 sec |
| P606.002 - PID Deceleration time | 0.5 sec |

^{***}Load your motor information as per the instructions that came with your pump - P303-P306*** $\,$

Pressure Sensor Settings

Wire the following into the VFD:

Positive - 24V

Negative - Ground

Signal - AI1

- 1. Press [Mode/Enter] until [EF] is displayed
- 2. Briefly press [Set]. Then use [Mode/Enter] to navigate till [Uni] then press [SET], here you can select PSI, press [Mode/Enter] to save and escape from this submenu.
- 3. Select [OU2] and set the function: [I] = current signal proportional to pressure 4...20 mA
- 4. Select [SELd] and set the type of display: [P] for Process and then press [Mode/Enter] to save and escape from this submenu.
- 5. Select [ASP] (Analogue Start Point) and set the measured value at which 4 mA 0 PSI
- Select [AEP] Analogue End Point) and set the measured value at which 20 mA - 15 PSI

To wire motor to the VFD - Instructions for Clockwise rotation

Wiring Terminal

| Black Red White | |
|-----------------|--|

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