

NFO TWIN PUMP SYSTEM PRO

Start menu:

Here you can see Set-point and Actually - value (bar) and frequency output to the motors motor (Hz).

Press 0 to enter change menu:

0

Press 1 to enter status menu:

1

Press 2 to enter alarm menu:

2



Change menu:

Press 0 to enter CHANGE menu and to navigate between the sub menu's press



1. Operation pump P1:

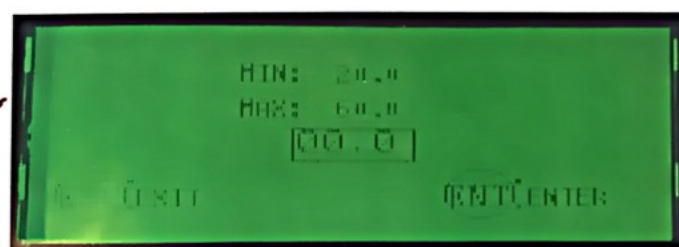
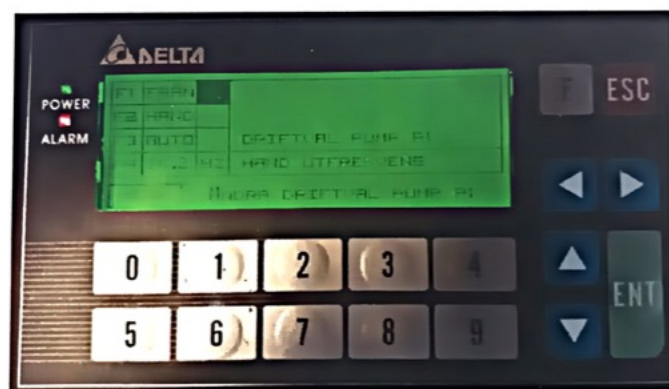
F1: Pump in Off:

F2: Pump in Hand/start:

F3: Pump in Auto:

F4: Output frequency in handmode

Output frequency is adjustable between min 20 (Hz) to max 60 (Hz).



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2. Operation pump P2:

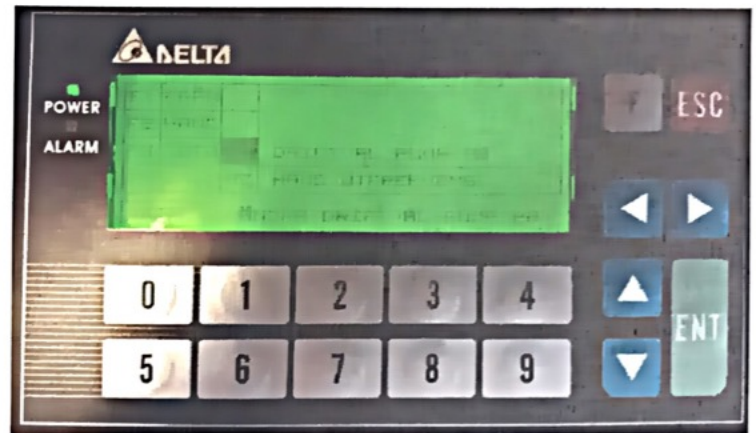
F1: Pump in Off:

F2: Pump in Hand/start:

F3: Pump in Auto:

F4: Output frequency in handmode

Output frequency is adjustable between min 20 (Hz) to max 60 (Hz).



3. Pressure sensor B1 (4-20 mA)

Pressure range in (bar):

F1: 0–10 bar:

F2: 0–16 bar:

F3: 0–25 bar:



4. Pressure sensor B1 alarm settings in bar:

F1: HH- pressure STOP A-alarm:

F2: H-pressure B-alarm:

F3: L- pressure B-alarm:

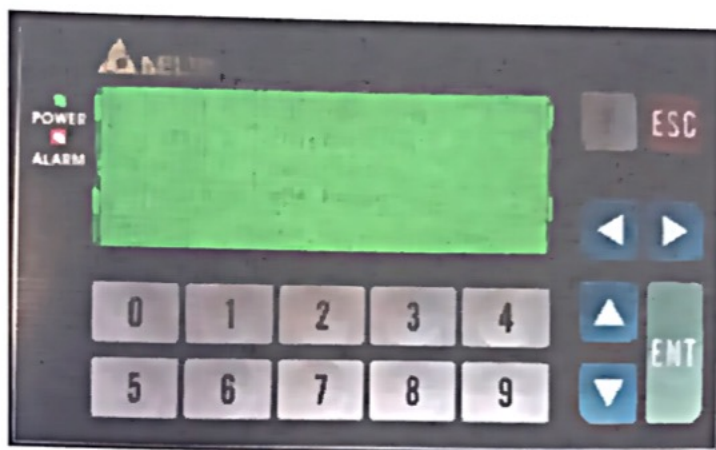
F4: LL- pressure STOP A-alarm:

The setting range is adjustable between 0.1–24.0 (bar)



5. PID-Controller adjustment and setpoint B1 Pressure sensor:

- F1: P-gain:
- F2: I-Integration time:
- F3: D-Derivation time:
- F4: Setpoint system pressure (bar):



6. Twin-pump operation:

- F1: Time pump switch P1 & P2 (1-500 h).
- F2: Time delay start second pump.
- F3: Time delay stop second pump.
- F4: Time delay stop of pump at min. load.



7. Type of twin -pump operation and start and stop settings:

- F1: Cascade operation.
- F2: Parallel operation.
- F3: Stop pressure over setpoint at minimum speed (bar).
- F4: Start pressure under the setpoint (bar).

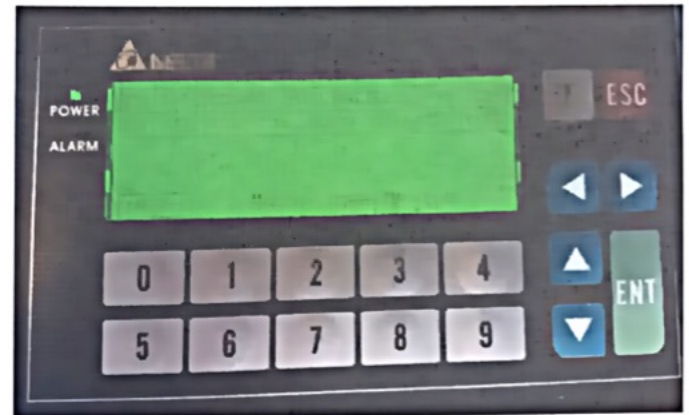


Dry running protection Cosfi:

F1: Set point Cosfi.

F2: Time delay dry running protection

Function: If powerfactor drops below setpoint the pump will stop.



8. Alarm auto reset:

F1: After preset time the alarm will reset and the pumps will try to start. If the alarm is still active the pumps will not start and the timer starts again.

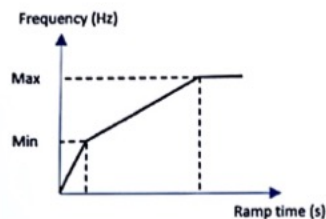
Preset value (10-60 min)



9. Set point Minimum and Max frequency Pump 1 and Pump 2:

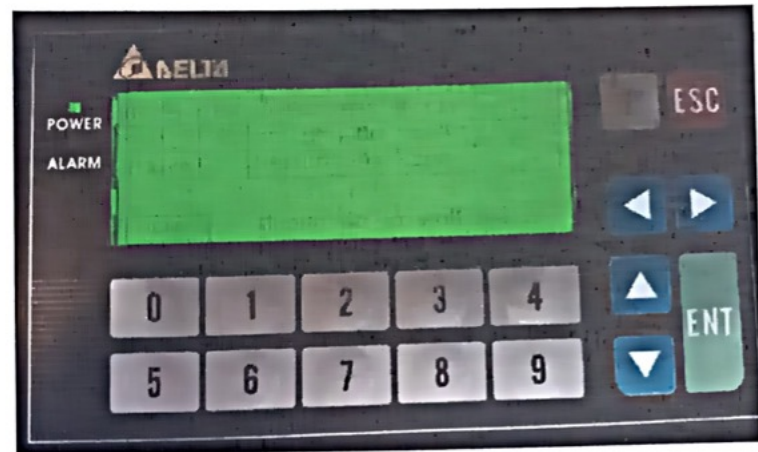
F1: Min frequency (20-35 Hz)

F2: Max frequency (45-60 Hz)



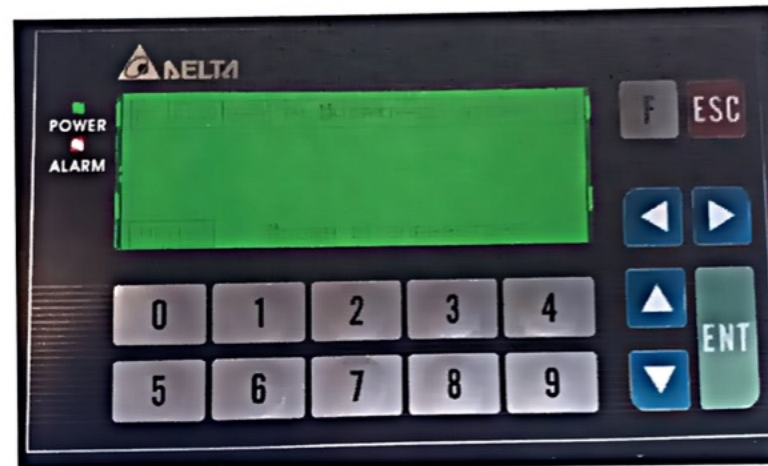
Level sensor:

- F1:** Level sensor active.
- F2:** Setpoint HH-level (%).
- F3:** Setpoint LL-Level (%).



10. Quick stop overpressure sensor B1:

- F1:** setpoint overpressure value above system pressure setpoint (bar).



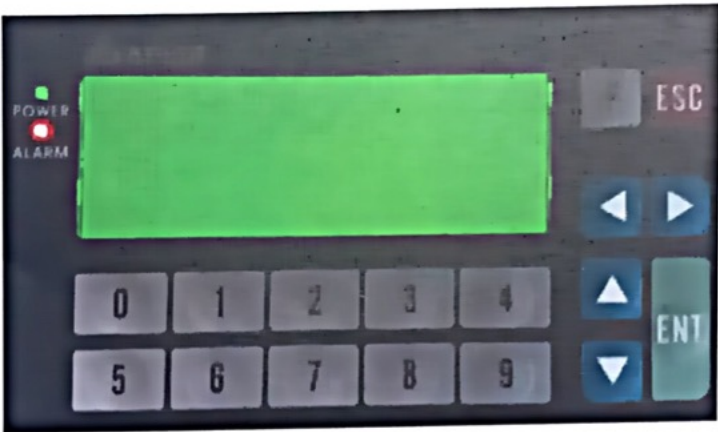
Menu Status and alarm:

Press **Nr 1** to enter menu **STATUS** press **Nr 2** to enter **ALARM** menu and to navigate between the sub menu's press.



Status Digital inputs:

- X00:** B3 Flowswitch OK
- X01:** Start (External).



Status Digital outputs:

- Y00:** General Alarm A not active.
- Y01:** General Alarm B not active
- Y02:** Pump P1 in operation.
- Y03:** Pump P2 in operation.



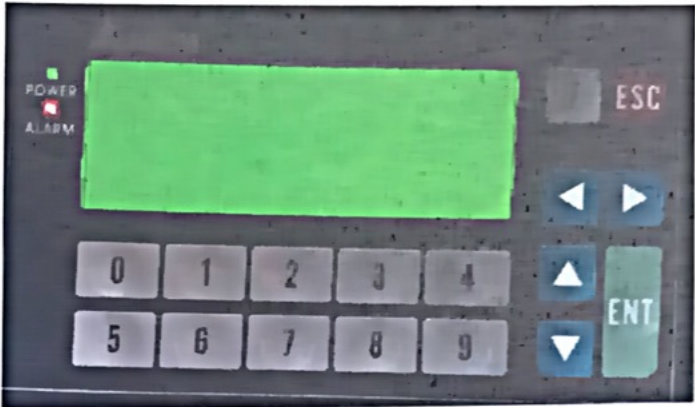
Status Analog In:

- CH0:** B1 Pressure sensor
- CH1:** B2 Pressure sensor (Level)



Status analog out

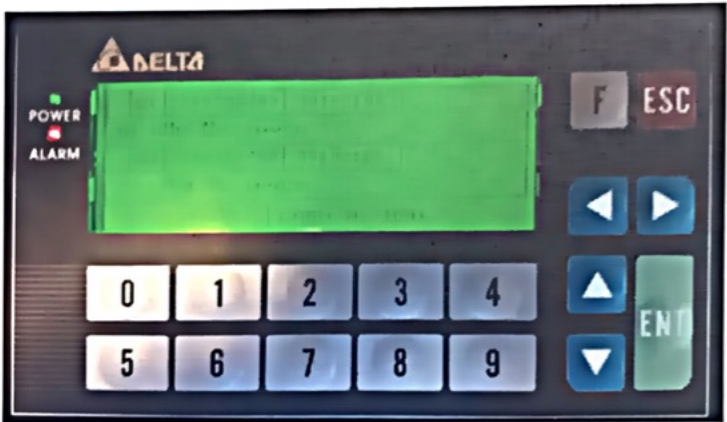
CH4: Control signal Pump P1
CH5: Control signal Pump P2



Larm A-Larm

A-alarm pressure sensor B1

01: B1 HH Pressure.
02: B1 LL Pressure.



A-alarm Dry running Power factor (COS fi)

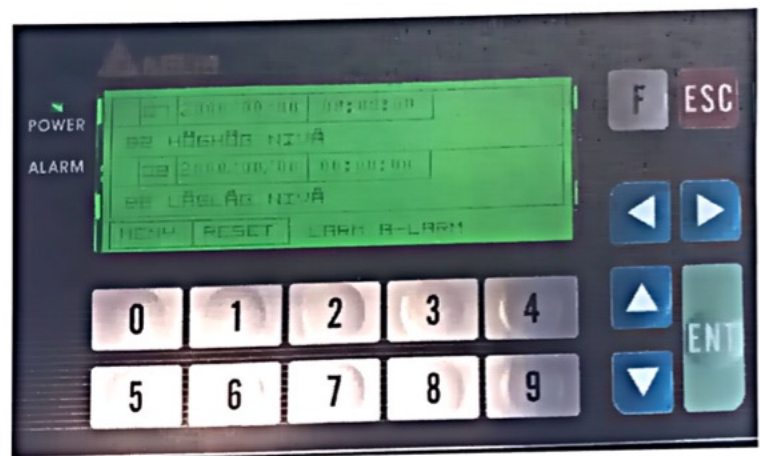
03: Pump P1 LL Power factor.
04: Pump P2 LL Power factor



06: Pump P2 fault.



08: Sensor B2 LL- Level.



10: Pump P1 Mod-Bus communication.



A-Larm

11: Pump P2 Mod-bus communication



B-alarm pressure sensor B1

- 15: H-Pressure
- 16: L-Pressure



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