

NE250 DUPLEX PUMP VFD CONTROLLER

Rev 0.9



NE250 Features In Brief

- Duplex pump VFD control
- Duplex alternator
- Pump Sequencing.
- VFD Pump Control
- Transducer Level Control
- 2-Level Float Control

Product Specifications:

Power Supply Input: 120VAC @ 80VA

Power Supply Output: 24 VDC @ 250mA w/120VAC input.

Analog Input: 4-20mA (250-ohm load), 0-5/1-5VDC (configurable)

Analog Output: (2) 4-20mA (500-ohm load) speed commands

Calibration Adj.: scalable via display screen or Auto-scalable with transducer connected

Alarm Horn Outputs: Dry contact for 120VAC or 24VDC supply voltage

Dimensions: 8 1/2" high x 7 1/2" wide x 3 1/2" deep

Environmental: Operating temperature 32 to 122° F

Humidity: 20-90% non-condensing

Enclosure Rating: NEMA 1

◆ The **NE250** duplex pump VFD controller is economical, space-saving, and easily integrated into new pump stations or retrofitted into existing pump station control systems. The **NE250** is ideal for any pump system application where you want to effectively and efficiently control the level of the process. Whether you are working with water or wastewater the controller can be configured to fit your control system requirement.

◆ The **NE250** has an integral programmable logic controller (PLC) and human machine interface (HMI) unit in one. This combination gives you a user-friendly touchscreen interface along with a customizable program that can be tailored to match your control system needs.

◆ The **NE250** provides full-range, differential control of two pumps plus High and Low (Abnormal) level alarm in response to a 0-10 volt DC or 4-20mADC level-proportional signal as provided by an external sensor. The controller works with a wide range of available level sensors including submersible level transducers, ultrasonic level transmitters or any other sensor that produces a linear, level-proportional analog output.

◆ The **NE250** comes complete with a built-in duplex alternator allowing pump sequencing in fixed or alternating modes. Sequence selections allow equalization of pump usage or the ability to take a pump out of service. Pump sequence selection and level control are viewable and adjustable on the main display screen. Time-based alternation is also provided as an option.

◆ The **NE250** controller has built-in relay contact closure outputs rated at 5 amps @ 120VAC. The outputs are used to activate pump starting equipment and external alarm devices. Both output relays are programmable to be NO or NC to better suit your application.

◆ The **NE250** controller operates on 120VAC power and provides 24 VDC and 5VDC power for a level transducer. All wiring terminations are located on the back of the controller with removable compression-type screw terminal blocks capable of securing two 14 AWG wires.

◆ The **NE250** has been designed and engineered as an alternative for select functions of the IntraLink LC150 pump controller.

| NE CONTROLS | | | | | | | | | | | | | | | | WWW.NECONTROLS.COM (315) 299-5161 | | | | | | | | | |
|----------------------------------|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|--|----|----|----|----|----|----|----|----|---|
| NE250 DUPLEX PUMP VFD CONTROLLER | | | | | | | | | | | | | | | | SERIAL NUMBER | | | | | | | | | |
| FEATURES: | | | | | | | | | | | | | | | | CONTROL INPUTS RETURN TO INPUT COM | | | | | | | | | |
| WET WELL LEVEL CONTROL | | | | | | | | | | | | | | | | TRANSUDER CONNECTIONS (500 OHM LIMIT PER ANALOG OUTPUT) | | | | | | | | | |
| PUMP ALTERNATION | | | | | | | | | | | | | | | | | | | | | | | | | |
| LEAD/LAG PUMP CONTROL | | | | | | | | | | | | | | | | | | | | | | | | | |
| HIGH/LOW LEVEL ALARM OUTPUTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| VFD SPEED CONTROL | | | | | | | | | | | | | | | | | | | | | | | | | |
| ADJUSTABLE SETPOINTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| AIR BLAST -OR- HORN OUTPUT | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120VAC 50/60Hz 80VA | | | | | | | | | | | | | | | | | | | | | | | | | |
| FUSE 2 AMP SLO-BLO | | | | | | | | | | | | | | | | | | | | | | | | | |
| PUMP1 START | | | | | | | | | | | | | | | | | | | | | | | | | |
| PUMP2 START | | | | | | | | | | | | | | | | | | | | | | | | | |
| ALARM OUTPUTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| HIGH LEVEL FLOAT | | | | | | | | | | | | | | | | | | | | | | | | | |
| LOW LEVEL FLOAT | | | | | | | | | | | | | | | | | | | | | | | | | |
| HORN SILENCE | | | | | | | | | | | | | | | | | | | | | | | | | |
| INPUT COMMON +24VDC | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANALOG OUT 1 (+) | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANALOG OUT 1 COM | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIGNAL IN 0-5V (WHT) | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIGNAL IN 4-20mA | | | | | | | | | | | | | | | | | | | | | | | | | |
| +24VDC FOR 4-20mA | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMMON 0-5V (BLK) | | | | | | | | | | | | | | | | | | | | | | | | | |
| EXCITATION 0-5V (RED) | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANALOG OUT 2 (+) | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANALOG OUT 2 COM | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUND | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 6 | 7 | 8 | 9 | 12 | 13 | 14 | 15 | 16 | 26 | 27 | 28 | 33 | 33 | 34 | 35 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | G |