

## SECTION 12.1 INTEGRINEX BASIC SETUP

### DESCRIPTION

The Integrinex BASIC level controller is equipped with a pressure transducer, alpha/numeric display, output Relays and terminal strips.

The front panel is equipped with a display and controls for the following functions: (refer to Figure 1)

Alpha/Numeric LCD Display: Displays wet well level, set points and setup parameters.

Output Status Colored LED's: P1 and P2 Illuminates Green when an output is on and a

pump is running. A1 and A2 Illuminates Red when an output is on and an alarm is present.

ENT Button [▶]: Press the [ENT ▶] button to enter into each menu and select and save a value.

ESC Button [◀]: Press the [◀ESC] button to back out of each menu and display the Process Display Screen.

Increment/Decrement Button [▼▲]: Changes level set points and setup parameter values.

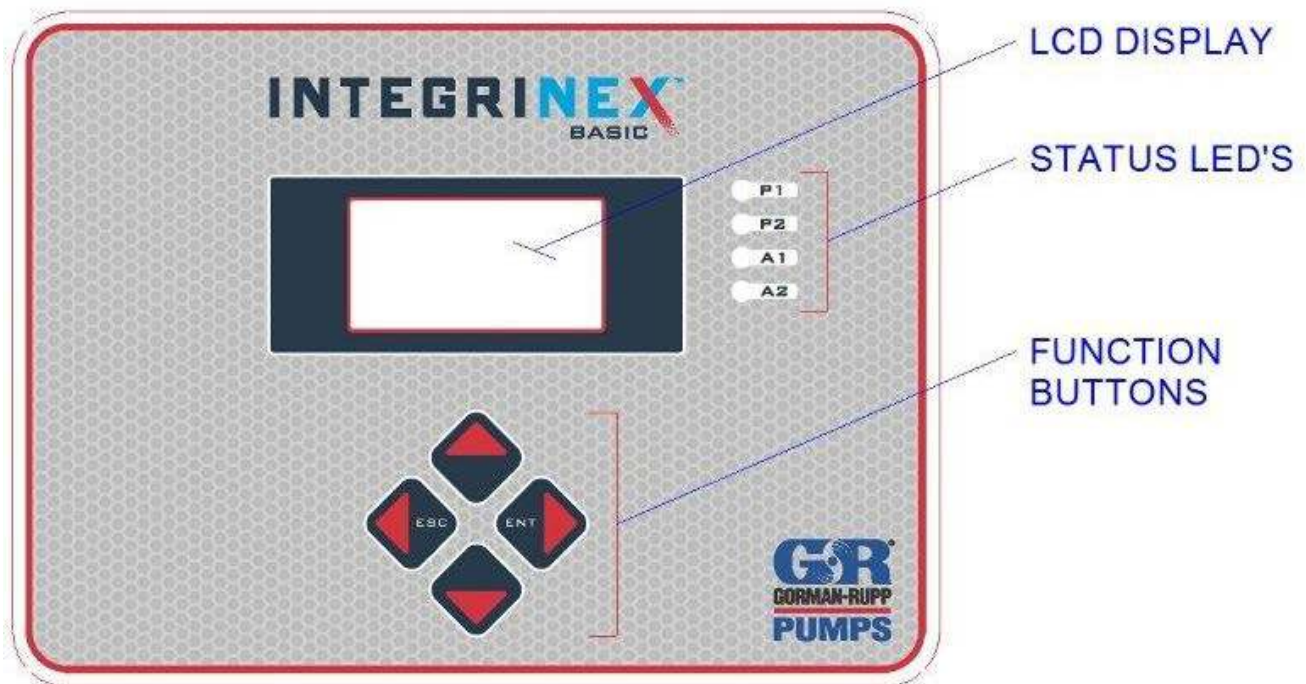


Figure 1, Front Panel

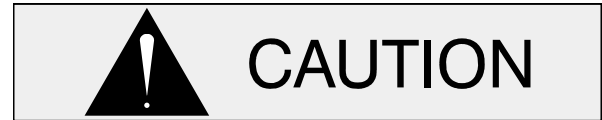
The back of the Integrinex BASIC includes the following: (refer to Figure 2)

Air Bubbler Transducer Input: Accepts tubing connection from air bubbler line.

Analog Input Terminal Strip: Accepts analog inputs from various level sensing instruments. (See Figure 4 through 7).

Digital Output Terminal Strip: Connects output relays to motor starters, relays and alarms.

Output Relays: Up to 4 mechanical output relays may be installed. Contacts accept either 120 Vac or a 12 to 24 Vdc.



**Refer to the control panel wiring diagram to determine proper output relay voltage.**

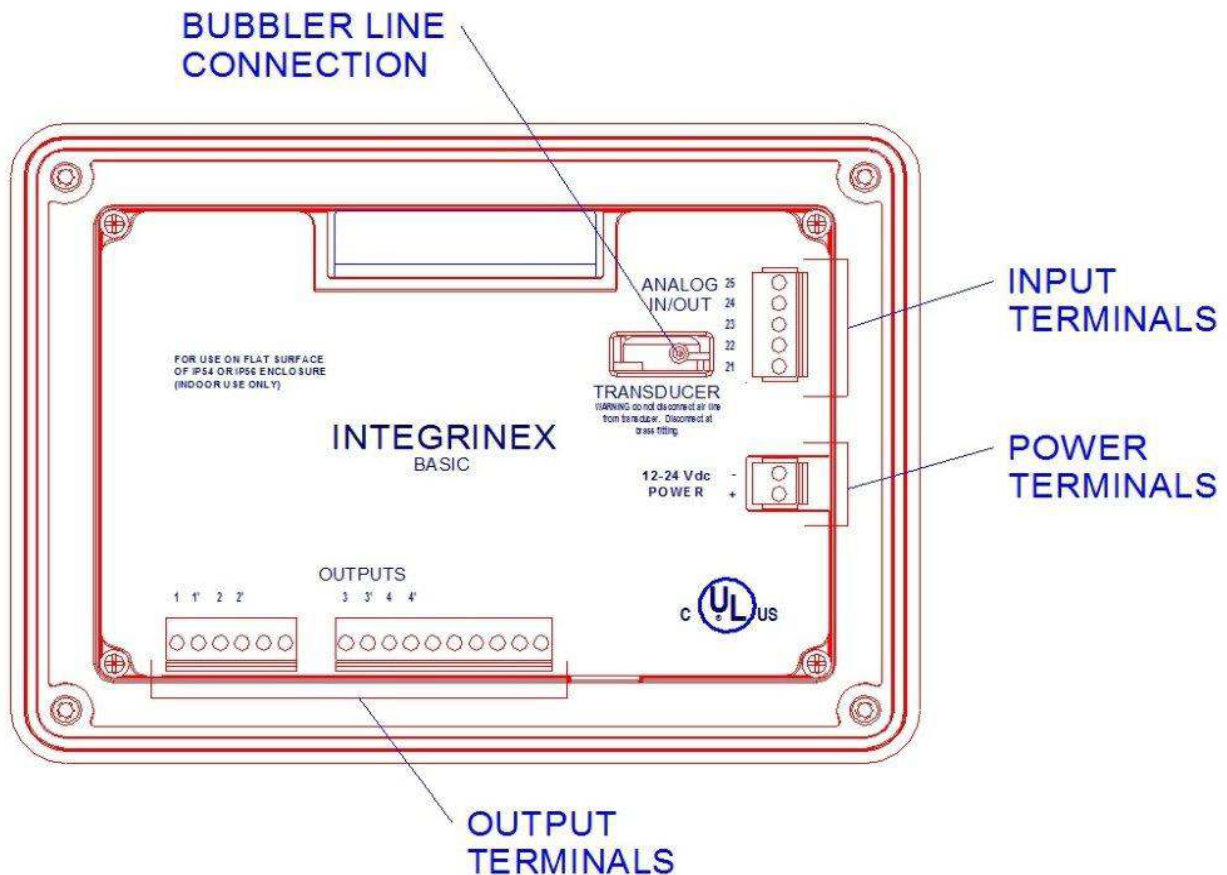








Figure 2, Back Panel

## OPERATOR ADJUSTMENTS

### Set points

1. Press the [ENT▶] button on the front of the Integrinex Basic controller to access the login screen. Enter the Access Code, refer to the Integrinex Setup section in Commissioning.
2. Use the up and down arrow keys (  ,  ) to access the LEVEL SETPOINTS. Press the [ENT▶] button on the front of the Integrinex Basic controller to select LEVEL SETPOINTS. Use the up and down arrow keys (  ,  ) to select desired ON and OFF set points.
3. Use the up and down Arrow keys (  ,  ) to adjust the set point levels. Press the [ENT▶] button to save set points.
4. Repeat steps 2, and 3 to set all other set point ON and OFF levels.

### NOTE

*Pump ON levels should be set at least 0.3 feet or more above the pump OFF levels. Closer settings may cause short cycling of the pumps.*

### NOTE

*The set points are independent and do not interact with other set points. The set point may be adjusted at any time without effecting pump operation. If pumps are operating when set points are changed, pumps need to complete that pumping cycle before new set points take effect.*

## COMMISSIONING

### NOTE

*LED indicators should not be active to commission Integrinex BASIC. Please remove active alarms before commissioning.*

### Enter Access Code

You must enter the access code to unlock setup. The valid access code is 0305.

Press [ENT▶] to display:

**Access Code:**

XXXX

(Digits are only displayed when [▲▼] is depressed)

1. Press [ENT▶] to accept the digit “0”. The cursor shifts to the next digit to the right.

XXXX

2. Press [▲] three times to change digit above cursor to a “3”.
3. Press [ENT▶] to accept the digit “3” and shift to the next digit to the right.

XXXX

4. Press [ENT▶] to accept the digit “0” and shift to the next digit to the right.

XXXX

5. Press [▲] five times to change digit above cursor to a “5”.
6. Press [ENT▶] to accept the digit “5” and the screen will display:

**Setup:**

**Units**

**Pump Count**

**Digital Outputs**

**Analog Input**

**Analog Calibration**

**Level Setpoints**

**Pump Sequencer**

**Timer Setpoints**

**Supervisor Password**

**Restore Defaults**

7. After setup adjustments have been made, setup may be password protected. The Integrinex Basic controller will return to the Normal Operation screen automatically after a short delay or immediately by pressing the [◀ESC] button twice.

## SETUP ADJUSTMENTS

### Units

PRESS [ENT▶] The screen will display:

**English  
Metric**

PRESS [▲ ▼] to toggle between options. PRESS [ENT ►] to accept change.

**Pump Count**

PRESS [ENT ►] The screen will display:

**Simplex (1 Pump)  
Duplex (2 Pumps)**

PRESS [▲ ▼] to toggle between Simplex and Duplex. PRESS [ENT ►] to accept change.

**Digital Outputs**

PRESS [ENT ►] The screen will display:

**Output 3  
Output 4**

PRESS [▲ ▼] to toggle between options and PRESS [ENT ►] The screen will display:

**Not Used  
High Level Alarm  
Low Level Alarm  
Level Trig Output**

PRESS [▲ ▼] to toggle between options. PRESS [ENT ►] to accept change.

**Analog Input**

PRESS [ENT ►] The screen will display:

**Internal Pressure  
External 0-5 V  
External 4-20 mA**

PRESS [▲ ▼] to toggle between options and PRESS [ENT ►] to accept change.

**Analog Calibration**

PRESS [ENT ►] The screen will display:

**Analog In Zero  
Analog In Span**

PRESS [▲ ▼] to toggle between options. PRESS [ENT ►] The screen will display.

**Zero Value**

Zero calibration sets the value displayed when the transducer is exposed to zero water (atmospheric) pressure. To set:

1. Apply zero pressure to the Integrinex BASIC input. Allow several seconds for the Integrinex Basic reading to stabilize.
2. Press [ENT ►] This saves the input value to display 00.0 Ft.

**Span Value**

Span calibration sets the value displayed when the transducer is exposed to a known water pressure (depth). To set:

1. Apply a known depth greater than 00.0 Ft to the Integrinex BASIC input, e.g. 12 feet of water. Allow several seconds for Integrinex BASIC reading to stabilize. Adjust the display to this same applied level using the [▲ ▼].
2. Press [ENT ►]. This saves the input value to display the span entered. In this example, 12.0 Ft.

**NOTE**

*Zero and span calibrations are only necessary to calibrate a new Integrinex Basic, or when replacing the transducer. Once calibrated, settings are stored in non-volatile memory.*

**Level Setpoints**

Each set point can be assigned for pump, alarm or not used. To set levels:

PRESS [ENT ►] The screen will display:

**Lead Pump  
Lag Pump  
High Water Alarm  
Low Water Alarm**

PRESS [▲ ▼] to toggle between options and PRESS [ENT ►] The screen will display:

**Stop = 2.0**  
**Start = 4.0**

1. Use the up and down Arrow keys [▲▼] to adjust the set point levels. Press [ENT▶] to save set points.
2. Repeat steps to set all other set point ON and OFF levels.

### Pump Sequencer

PRESS [ENT▶] The screen will display:

**None**  
**Tabular**  
**Pump 1 Lead**  
**Pump 2 Lead**

PRESS [▲▼] to toggle between options and PRESS [ENT▶] to accept change.

### Timer Setpoints

PRESS [ENT▶] The screen will display:

**Pump Start Delay**  
**Pump Stop Delay**  
**Alarm Input Delay**

PRESS [▲▼] to toggle between options and PRESS [ENT▶] The screen will display:

**??? Delay = 5 Sec**

1. Use the up and down Arrow keys [▲▼] to adjust the delay. Press [ENT▶] to save.
2. Repeat steps to set all other time delays.

### Supervisor Password

PRESS [ENT▶] The screen will display

**0305**

PRESS [▲▼] to toggle between numbers to make changes to the desired password. PRESS

[ENT▶] to accept first digit change. Repeat steps to make all changes and PRESS [ENT▶] to accept new password.

### Restore Defaults

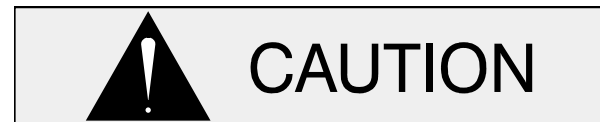
PRESS [ENT▶] The screen will display:

**Are You Sure?**

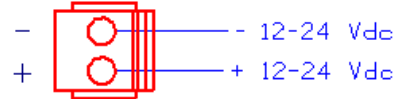
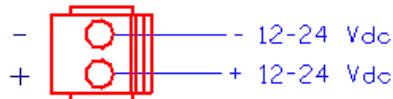
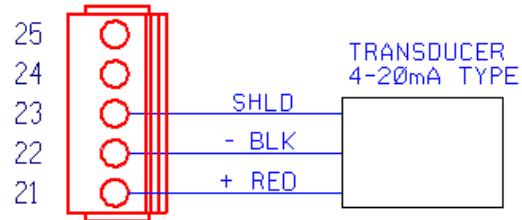
[◀] = NO      YES =[▶]

PRESS [ENT▶] to Restore to factory defaults.

PRESS [◀ESC] to Return to active settings.



**When setup values are changed, they are temporarily stored in volatile memory. To save these new settings to non-volatile memory, it is important to press [ENT▶] then [◀ESC] to return to the Process Display Screen.**

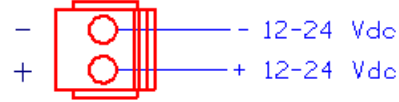
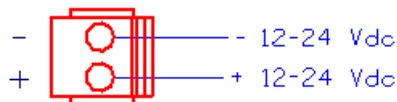
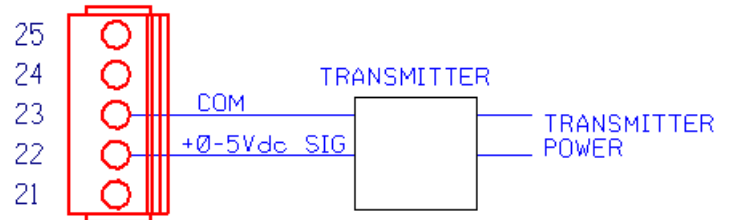
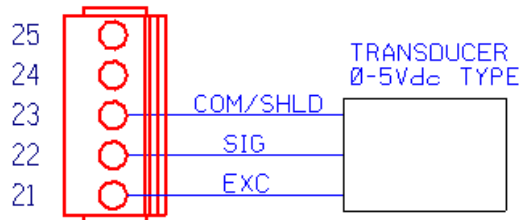


CONFIGURE ANALOG IN  
"INTERNAL TRANSDUCER"

CONFIGURE ANALOG IN  
"EXTERNAL 4-20mA"

**Figure 3, Air Bubbler Input,  
Power by Integrinex**

**Figure 4, 4-20 mA Input,  
Power by Integrinex**

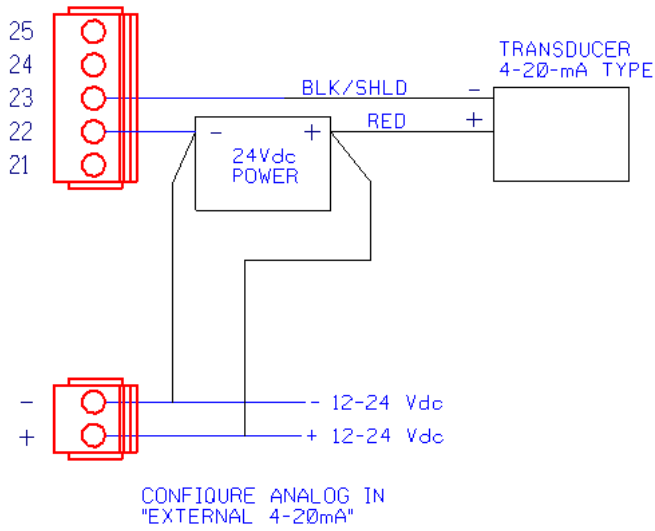


CONFIGURE ANALOG IN  
"EXTERNAL 0-5Vdc"

CONFIGURE ANALOG IN  
"EXTERNAL 0-5Vdc"

**Figure 5, 0-5 Vdc Input,  
Power by Integrinex**

**Figure 6, 0-5 Vdc Input,  
4-Wire Transmitter**



**Figure 7, 4-20 mA Input,  
Powered Externally**