Measure Larger Tanks with the Tank Level Solutions Kit and an Analog Sensor

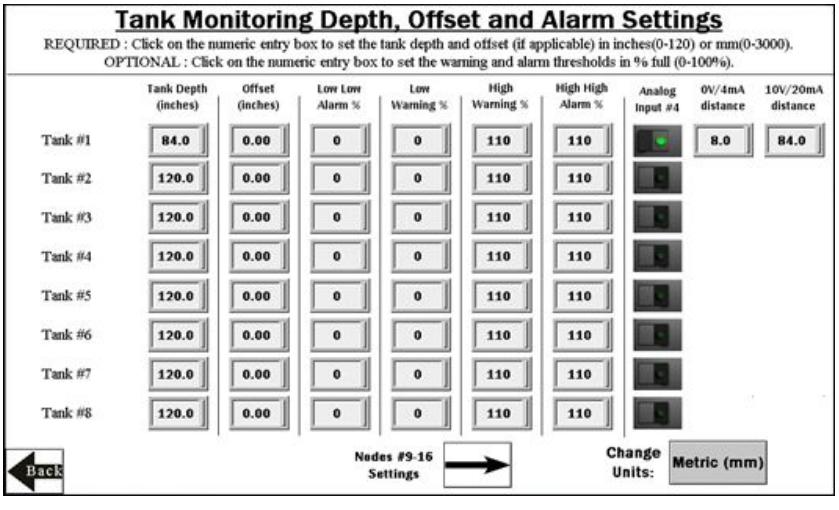
Measure Larger Tanks Using an Analog Sensor

Banner's Tank Level Monitoring Solutions Kit v2.0 or newer has a new feature that allows the use of any 0-10V, 4-20mA, or 0-20mA output sensor to measure distance. The standard devices (K50U or Q45UAC) used with the kit have a distance limitation of 3 meters. By supporting any analog input, the Solutions Kit can now be used to measure tanks of any depth.

Because the Solutions Kit is preconfigured, the analog input must come through a wireless Performance Node on that Node's I/O point 4. Compatible radios include the Performance P1, P5, PB1, or PB2.

1. Wire the analog signal.
   - When using the P5 Node, wire the analog signal into Analog IN 4 (I/O point 4).
   - When using the P1, PB1, or PB2 radios, wire the analog signal into Analog IN 2 (I/O point 4).
2. Match the sensor output to the board input expectations. This may involve setting DIP switches on the Nodes to 0-10V input or 4-20mA instead of 0-20mA.

   The P1 Node does not have a DIP switch to change to 4-20mA from the default 0-20mA and therefore requires using the DX80 Performance Configuration Software to change the **Units** on Input 4 from 0-20mA to 4-20mA for the Node.
3. After the sensor is wired to the selected DX80 Node and properly configured, run the binding procedure between the Node and the Solutions Kit. Use the settings in the Tank Setup screen on the HMI of the Tank Level Monitoring Solutions Kit.



4. Turn the rocker switch ON in the Analog Input #4 column for the appropriate Node.
5. Set the distance in inches for the minimum sensing distance of the sensor.
6. Set the distance in inches for the maximum sensing distance of the sensor.
7. Set the minimum and maximum distances in millimeters if the **Change Units** button has been used.

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