

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.

Configuration

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.

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). Match the sensor output to the board input expectations, which may involve setting DIP switches on the Nodes to 0-10V input or 4-20mA instead of 0-20mA.

NOTE: 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 User Configuration Software](#) to change the **Units** on Input 4 from **0-20mA** to **4-20mA** for the Node.

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.

Tank Monitoring Depth, Offset and Alarm Settings

REQUIRED : Click on the numeric entry box to set the tank depth and offset (if applicable) in inches(0-120) or mm(0-3000).
OPTIONAL : Click on the numeric entry box to set the warning and alarm thresholds in % full (0-100%).

	Tank Depth (inches)	Offset (inches)	Low Low Alarm %	Low Warning %	High Warning %	High High Alarm %	Analog Input #4	0V/4mA distance	10V/20mA distance
Tank #1	84.0	0.00	0	0	110	110		8.0	84.0
Tank #2	120.0	0.00	0	0	110	110			
Tank #3	120.0	0.00	0	0	110	110			
Tank #4	120.0	0.00	0	0	110	110			
Tank #5	120.0	0.00	0	0	110	110			
Tank #6	120.0	0.00	0	0	110	110			
Tank #7	120.0	0.00	0	0	110	110			
Tank #8	120.0	0.00	0	0	110	110			

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Nodes #9-16 Settings
Change Units: Metric (mm)

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