

FB LEVEL SENSORS

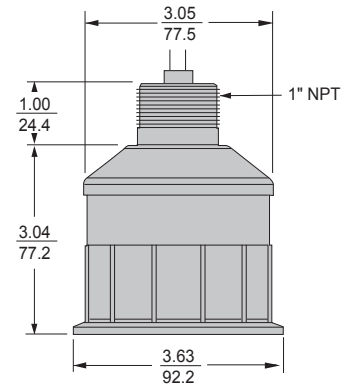
Description:

The FB series of height sensors are designed to operate with the Vantage 2200 series electronics for open channel flow or level measurements. The FB family of height sensors incorporate a piezo crystal and a temperature compensator within their housings. There is also a diode protection network designed to protect these components inside the housing.



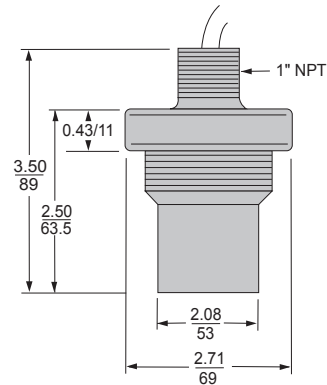
FB5 Sensor

Application: Flow and/or Level
 Range: 0-25 Feet (with minimum 1 ft offset region)
 Accuracy: +/- 0.02" or +/- 0.05% of target distance, whichever is greater
 Material: PVC Glass Filled Polyester
 Cable: 1 conductor, 3 shields (Belden 3124A) PVC coated
 Cable lengths: 30, 100, 200 ft standard. Special over 200 ft. up to 1000 ft. max.
 Operating frequency: 50KHZ
 Temperature: -40° F to 158° F (-40° to 70° C)



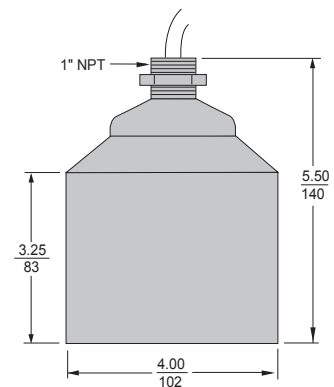
FB2 Sensor

Application: Flow and/or Level (Food Safe)
 Range: 0-16 Feet (with minimum 1 ft offset region)
 Accuracy: +/- 0.02" or +/- 0.05% of target distance, whichever is greater
 Material: Tefzel
 Cable: 4 conductor, 3 shields (Belden 8728) PVC coated
 Cable lengths: 30, 100, 200 ft standard. Special over 200 ft. up to 1000 ft. max.
 Operating frequency: 51KHZ
 Temperature: -40° F to 158° F (-40° to 70° C)



FB3 Sensor

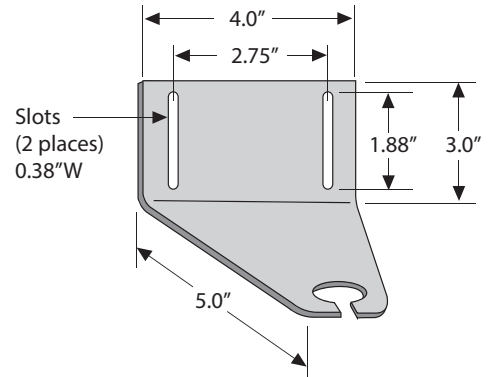
Application: Level
 Range: 0-50 Feet (with minimum 2 ft offset region)
 Accuracy: +/- 0.1" or +/- 0.1% of target distance, whichever is greater
 Material: ABS
 Cable: 4 conductor, 3 shields (Belden 8728) PVC coated
 Cable lengths: 100 ft standard, 300ft maximum.
 Operating Frequency: 30KHZ
 Temperature: -40° F to 158° F (-40° to 70° C)



FB LEVEL SENSORS

Sensor Bracket:

A Stainless Steel sensor bracket is provided with each FB sensor. Dimensions are shown to the right. Simply route cable through the end of the bracket and slide the 1 inch nipple through the hole in the bracket and tighten both nuts.



Sensor Bracket:

All primary devices (flume/weirs) will have a horizontal distance that is required. This dimension is usually upstream of the restriction in the device. (i.e. throat of flume, or crest of weir)

On both level and flow measurements, there is a minimum clearance from a wall or obstruction to the side of the sensor. (Refer to the drawing on the right.) This dimension is referred to as "A". "A" is calculated as follows:

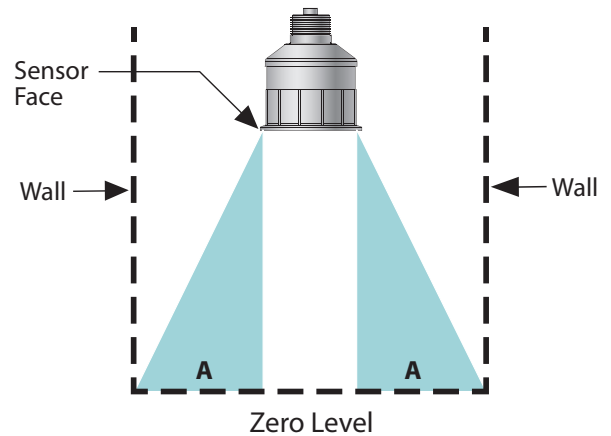
FB5 Sensor: A = 6 degrees or (0.09* Total Range)

FB2 Sensor: A = 5 degrees or (0.07* Total Range)

FB3 Sensor: A = 5 degrees or (0.09* Total Range)

Total Range = Distance from bottom of sensor to zero level in feet or inches.

Example: Using an FB5 with a Total Range of 10ft. $0.09 * 10\text{ft} = 0.9\text{ft}$. or 10.8in.ft. The sensor will need to be mounted as a minimum of 0.09ft or 10.8 inches away from any wall or obstruction..



System Diagram

