

## V30 CLAMP-ON SENSORS

### Description:

The Vantage clamp-on style sensors are designed to operate in conjunction with Speedrail mounting rails and chains. Two configurations are available.

**V30S: Pipe sizes 1 inch to 3 inch.**

**V30L: Pipe sizes 4 inch and larger.**

Material and specifications are the same for both styles of sensors. The only difference between the V30L and the V30S sensors are the physical size. (See dimensions in the picture to the right)

### Material of Construction:

Housing: Black Anodized Aluminum.  
 Shoe: Ultem®  
 Connector: Anodized Aluminum 1/2" NPT.  
 Sensor Cable: Triax with PVC coating (Belden 9222)  
 50 ft. standard, 1000 ft. maximum.

### Temperature:

Standard: -30° F to 150° F  
 High Temp. (Optional): -30° F to 300° F

### Operating Frequency:

1280 Khz or 640 Khz

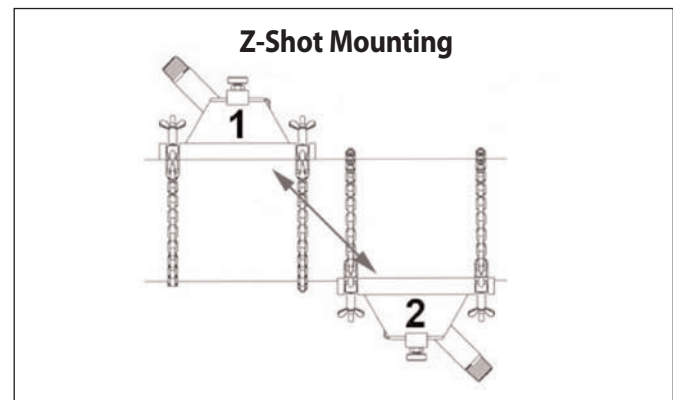
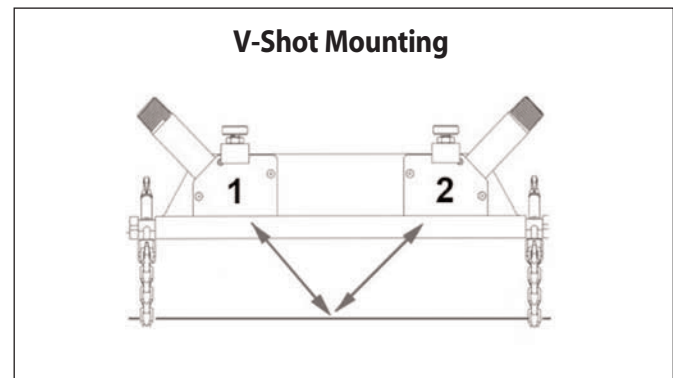
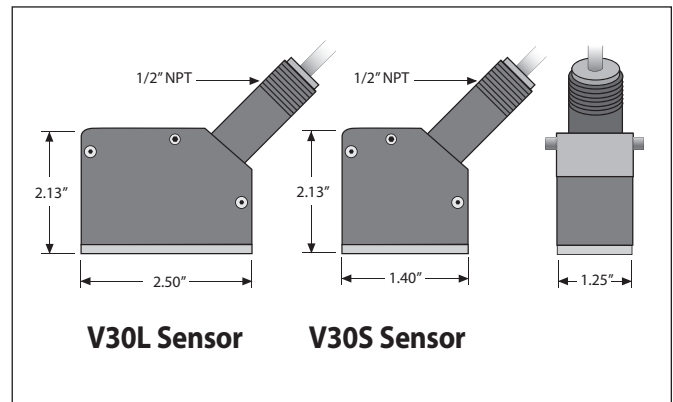
### Speedrail Mounting

The Speedrail mounting for the Vantage sensors was specifically designed to make installation of the sensors and rail system easy and simple for the installer. No extra tools are required for installation other than connecting the conduit to the sensor.

The V-Shot holder will have one rail with two mounting chains. The Z-Shot holders will have two rails and two chains per rail. The Z-Shot holders will also be supplied with a Z-Shot Locator to assist in sensor orientation of upstream vs. downstream sensor placement.

### Materials and Construction:

Rating: Anodized Aluminum  
 Hardware: 304 Stainless Steel  
 Mounting Chain: 304 Stainless Steel



## V30 CLAMP-ON SENSORS

### Vantage Series 4000

#### Clamp-On Sensor Installation

There are two styles of clamp-on sensors. The V-Shot and the Z-Shot sensor rails will accommodate both style of sensor.

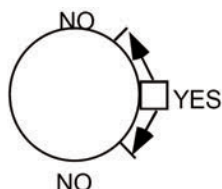
**It is important to note, that the meter will need to be programmed for the specific sensor style utilized..**

#### Where do I place my sensors in relation to upstream and downstream conditions?

Ultrasonic transit-time flow meter accuracies are based upon well developed velocity profiles. Upstream disturbances, such as pumps or tees and elbows, will affect the velocity profile. Below are recommended straight runs to assure meter accuracies.

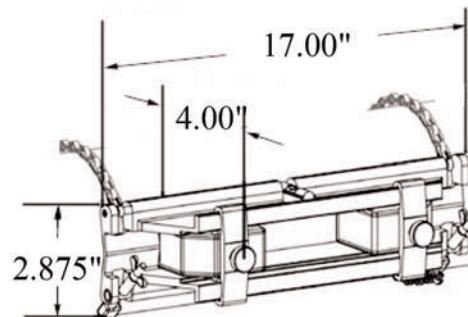
Device	Upstream from meter (in pipe diameters)	Downstream from meter (in pipe diameters)
Tees & elbows	10-15	2-3
Reducers	10	2-3
Increases	20	2-3
Valves (fully opened)	10-15	2-3
Valves (modulating)	20-25	2-3
Pumps	20-25	2-3

The sensor/sensor holders should always be placed on the sides of the pipe as shown on the left and never on the top or the bottom of the pipe.



#### V-Shot Rail Dimensions

One rail on side of pipe



#### Z-hot Rail Dimensions

Two sensor rails, one on either side of pipe.

