

Vantage HS3 Hotshot Sensors Technical Brief

The HS3 hot shot sensor is designed to be used on reinforced concrete (RCP) or concrete cylinder pipes (RCCP) or any pipe material that is not conducive to the transmission of acoustic energy. It may also be used in raw sewage applications so the user can clean the tips of the sensors if necessary because of pipe wall build up. The HS3 hot shot sensors will be supplied with 1-1/2" ball valves and tail piece assemblies. It will be necessary to provide either weldolets or tapping saddles to hot tap the pipe to use the HS3 hotshot sensors. Eastech Badger will provide a template to assure the proper sensor separations on the pipe before the taps are performed.

Material of Construction:

HS3 Sensor: PVC
 Sensor cable: Triax (Belden 9222) with PVC coating.
 Max. Temp.: -30° F to 150° F
 Max pressure: 150 psi

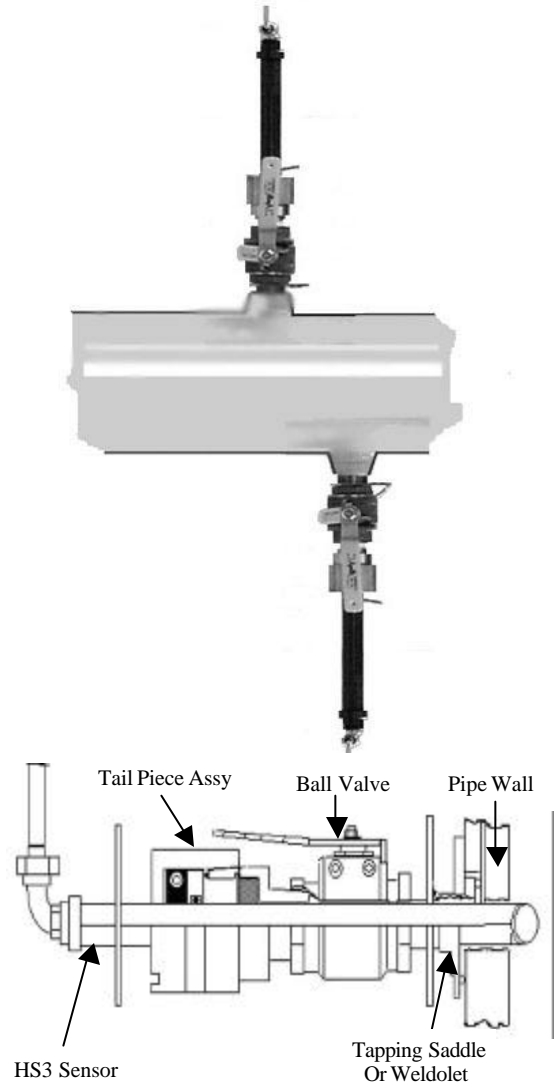
Valve: 1-1/2" Ball Valve, Bronze
 Nipple: 1-1/2" male NPT, Brass
 Tail piece Assy: Brass

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

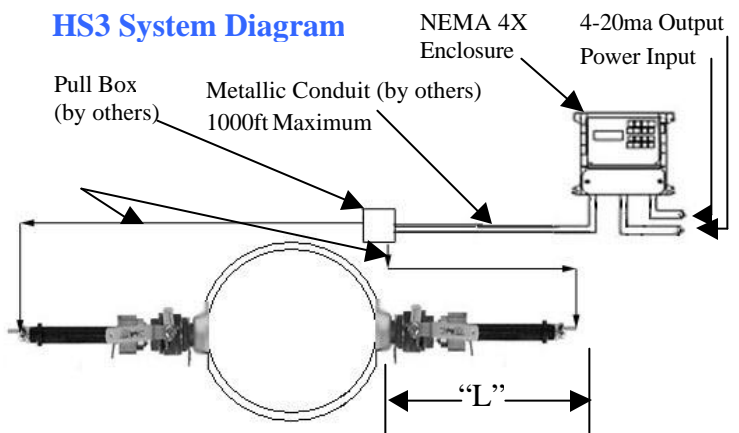
The ultrasonic transit time flow meter accuracies are based upon well developed velocity profiles. Below is recommended straight runs to assure meter accuracies.

Device	Upstream	Downstream
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

In vertical runs, the flow should always be up and never down.



HS3 System Diagram



“L”= 36.00 inches (minimum clearance required for insertion and removal of HS3 sensors. This dimension will be on both sides of the pipe.)