

Vantage WD-1 Windowed Spool

Technical Brief

The Windowed spool is a fabricated spool piece and is available in a windowed sensor design with a wide choice of end connections and materials of construction. Spool pieces are supplied with both sensors mounted and calibrated to the electronics. Windowed sensors transmit and receive ultrasonic pulses through an acoustic window which is in contact with the flow stream. The design allows sensor removal without de-watering of the line. The sensors and windows are constructed of Ultem thermoplastic material and carry a temperature rating of -30° to 150° F and a pressure rating of 150 psi. Spools with carbon steel bodies are epoxy coated. Accuracy is +/- 1% above 1 foot per second velocity.

Materials of construction:

Sensor: Ultem plastic
 Sensor Cable: Triax, PVC coated, Belden 9222

Window: Ultem 1000 Thermoplastic
 Max. Pressure: 150 psi

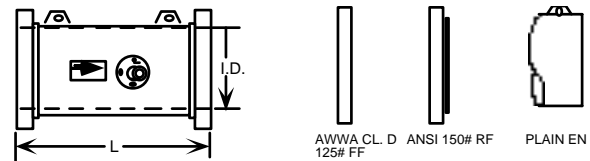
Sensor holder & hardware: 304 S/S

Spool Body: Standard, 3"- 6" 304 S/S
 8"- 48" Carbon Steel

Optional: 304 S/S, 316 S/S
 Flanges: Standard, Carbon Steel

End Connection: ANSI RF 150#, AWWA C1 D, Plain
 Options: End.

Internal Coatings: Conform to AWWA D102-97, C210-92 and ANSI/NSF STD 61



Size(In)	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
"L"	12	12	12	14	15	18	21	24	27	30	36	30	36	42	48

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
Increasers	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.

WD-1 System Diagram

