

Pipeline Model PSA-AV

Area Velocity Smart Sensor

FlowAV

Measured by the Quality of Your Data.



Proven Technology with Innovations

The Pipeline Model PSA-AV is an integrated area velocity flow sensor. It combines proven pressure depth and continuous wave Doppler velocity technologies with innovative sensor level signal processing performed within the sensor. This combination results in vastly improved sensor accuracy and stability.

Velocity and Level Technology

The PSA-AV uses Progressive Spectral Analyzer technology (PSA-Patent Pending), which improves the quality of the signal, the accuracy of the readings, and reduces the power consumption. The pressure level sensor has a 100% piezoresistive ceramic pressure sensor which is being used for the first time at this price in the sewer flow metering industry.

Signal Processing in the Sensor

The sensor processes the data within inches of the real-world signal it is sensing. The sensor delivers the processed measurements to the logger over industry standard RS-485 serial communication using Modbus Communication Protocol (an industry standard communication protocol).

Proven Technology:

- Stable pressure depth technology
- Continuous wave Doppler velocity

Innovations:

- Progressive Spectral Analyzer (Patent Pending)
- Sensor Level Intelligence - SLI (tm)
- Integrated wireless communication
- 100% ceramic piezoresistive crystal construction
- Sensor level signal processing
- Minimal power consumption
- USB communications cables available

TECHNICAL SPECIFICATIONS

Pipeline Model PSA-AV



MANUFACTURED
IN THE USA

GENERAL	
Type	Combined Doppler Velocity and Pressure Depth with temperature compensation
Material	Epoxy encapsulated PVC housing
Dimensions	0.9 by 1.85 by 6.0 in. (H x W x L)
Cable	Black polyurethane jacket with vent tube
Cable Diameter	0.250 in. +/- 0.005 in.
Cable Length	35 feet (custom lengths available)
Connector	Bulgin 9-pin circular, IP67
Vent Tube	Nylon 0.055 in. ID by 0.085 in. OD
Power	+9 to +16 Vdc, 250 mA
Communications	Two-wire, RS-485
Communications Protocol	Modbus RTU
Velocity Spectrum	Progressive Signal Analysis (Patent Pending)
Mounting Screws	Two #6-32 by 1/2 in., ss fl at tapered

VELOCITY SENSOR	
Method	Dopler ultrasound, twin PZT disks
Transducer Type	Ceramic Disks
Minimum Depth	0.90 in.
Range	-5 to 20 ft/s
Accuracy	+/-2% of reading
Operating Temp	32 deg F to 160 degF

DEPTH SENSOR	
Method	Pressure Sensor, 500 mBar
Transducer Type	Ceramic Piezoresistive
Range	0 to 15 feet
Max Allowed Leve	45 feet
Accuracy	+/-0.25% full scale +/-1% of reading from 32 def F to 160 deg F
Compensated Range	32 deg F to 86 deg F

