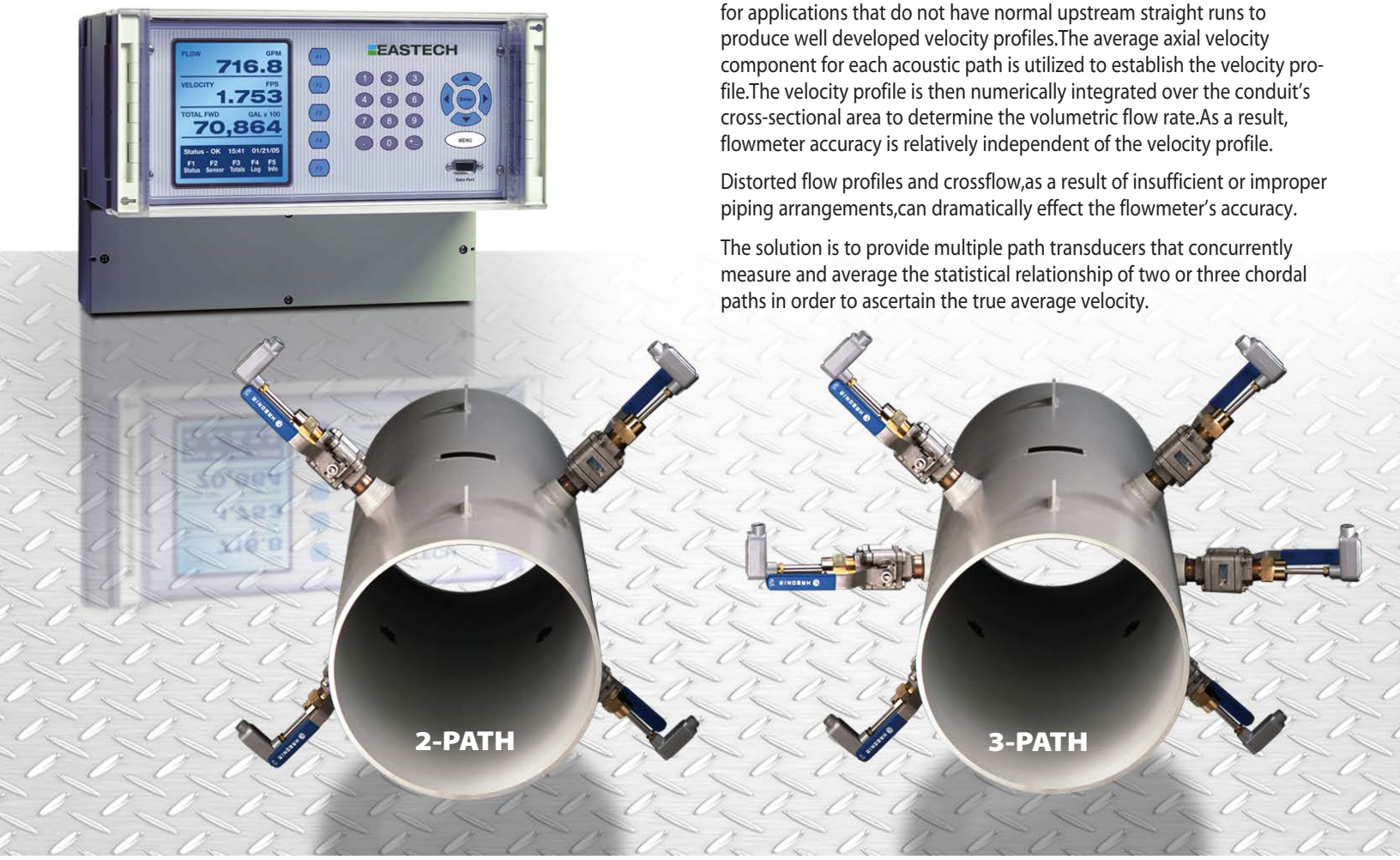
VANTAGE 4700

Multipath Flowmeter



MULTIPATH CONFIGURATIONS

Two and three path diametrical sensor configurations are recommended for applications that do not have normal upstream straight runs to produce well developed velocity profiles.The average axial velocity component for each acoustic path is utilized to establish the velocity profile.The velocity profile is then numerically integrated over the conduit's cross-sectional area to determine the volumetric flow rate.As a result, flowmeter accuracy is relatively independent of the velocity profile.

Distorted flow profiles and crossflow,as a result of insufficient or improper piping arrangements,can dramatically effect the flowmeter's accuracy.

The solution is to provide multiple path transducers that concurrently measure and average the statistical relationship of two or three chordal paths in order to ascertain the true average velocity.

ADVANCED ELECTRONIC METERS

Daily Averages: Daily summary allows viewing of the previous eight days.This includes times,dates,and totals.

Logger Graph: In addition,a bar graph may be visually displayed on the Vantage 4700.The graph will display the stored logger data in pre- programmed time intervals.

Data Retrieval: Logger data can be collected by using a laptop computer or an optional modem installed within the enclosure.

NIST TRACEABILITY

Prior to shipment,every flanged flowmeter under 14"is individually tested,calibrated and certified at our in-house Flow Metrology Lab.All flowmeter calibrations are directly traceable to standards established by the National Institute of Standards and Technology (NIST).

SPECIFICATIONS / ORDERING GUIDE

Design	System Accuracy	Rangeability	Linearity	Repeatability
Multipath	+/- 0.5% over a specified flow range with sufficient paths to accurately determine true average velocity	Site Dependent	+/- 0.5%	+/- 0.25%

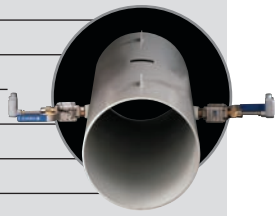
APPLICATIONS

- **WATER**: Influent/effluent, distribution flows, water wells
- **WASTEWATER**:Lift stations, WWTP influent/effluent, clarifier effluent, primary clarifier sludge flows
- **INDUSTRIAL PROCESS**: In plant monitoring, transportation lines, power plant cooling water, HVAC
- Turnouts, aqueduct flow

SENSOR SPECIFICATION

The Hot Shor sensor is ideal for applications involving raw sewage, since the sensor can be removed in the field for cleaning due to pipe wall build-up of the media.

Construction	PVC & Stainless Steel
Sensor collar	Brass
Sensor nipple	Brass, 2.0" male NPT
Ball valve	2.0" Bronze, 300PSI
Cable	Triax w/ PVC coating
Temp. Range	-30° to 150°F
Pressure rating	300 PSI Max



ENCLOSURE	
Standard	IP66 / Nema 4, 4X polycarbonate
Optional	Explosionproof, Aluminum Class I ,Grps. C & D, Class II, Grps. E, F, G. Div. 1 & 2
Accessories	Heater and thermostat, Door Lock and Modem
TEMPERATURE	
Standard	-4° to 158°F (-20 to 70°C)
With Heater	-40° to 158°F (-40 to 70°C)
OUTPUTS	
4-20 mA	Analog isolated into 800 ohms max, monitored to detect open circuits. RFI and gas discharge surge protection and two fuses.
Relay Alarms	3 standard, SPDT relays (socketed 3.0A @ 120VAC / 24VDC
SERIAL PORTS	
RS-232	1200-38400 Baud, Modbus RTU protocol
RS-485	Optically isolated, Modbus RTU protocol
Network Protocols	Modbus, Profibus or DeviceNet
DC Power Out	12 VDC. 100mA maximum
DISPLAY	
Backlit LCD	160 x 128 pixel graphical
POWER	
Wattage	12 (Single Path), 12 (Multipath)
Voltage	100 to 240 VAC, 50/60 Hz / 12 to 24VDC @ 300 mA.
DATA LOGGING	
Memory	Non-volatile flash memory, storage of up to 32768 records.

METER	SENSOR PATHS	SENSOR STYLE	PIPE SIZE	SPOOL BODY	END CONNECT	SENSOR CABLE	OPTIONS
47	Two **20**	Hot Shot **H**	Specify Size (inches)	Carbon Steel **CS**	Flanges Carbon **CS**	30 ft. **W**	Heater & Thermostat **B**
	Three **30**			304S/S **4S**	304S/S **4S**	50ft. **X** 100ft. **Y**	Keylock **C**
				316S/S **6S**	Plain End **PE**	200ft. **Z**	Splice Kit **D**
						Over 200ft (Specify)	Modem. **M**

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