

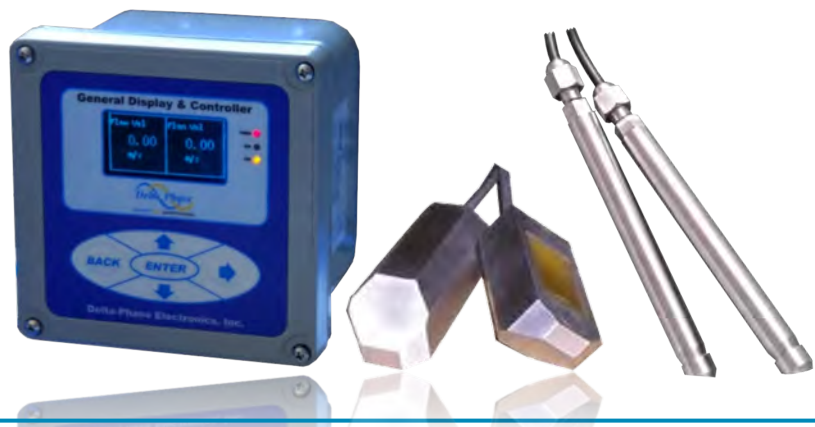
ULTRASONIC FLOW

ALPHA3000: ULTRASONIC TRANSIT-TIME FLOWMETER

DIGITAL TECHNOLOGY FOR OPTIMIZED MEASURES

TYPICAL APPLICATIONS

- Water, sea water, river water
- Industry process water
- Outlet of WWTP



The Alpha 3000 Transit-Time Flowmeter combines digital signal processing (DSP) with correlation detection methods. The Alpha 3000 is designed to work on clean and dirty fluids ranging from distilled products to multi-phase crude oil and water mixtures. Difficult applications include oil production, cryogenic and custody transfer. Available in single channel or multi-channel, this Transit-Time flow measurement instrument is configurable as a clamp-on or insertion model.

OTHER FEATURES INCLUDE:

- No moving parts to wear out
- Simple installation
- High accuracy
- The non-intrusive clamp-on transducer can be installed without flow interruption to ensure leak free measurements with zero pressure drop
- Insertion transducer can be installed with hot-tap alignment or spool piece for custody transfer applications

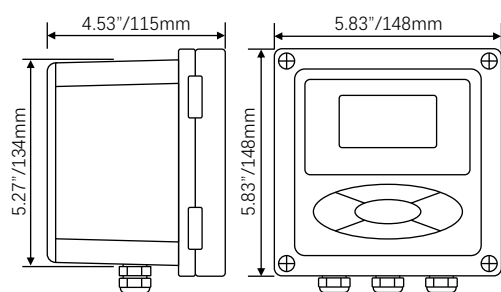
SPECIFICATIONS

Measure principle	Ultrasonic Transmit-Time method
Accuracy	To $\pm 0.5\%$ of velocity or ± 0.05 FPS (0.0152MPS) Typical on a calibrated system/digital output. (Depending on fluid conditions)
Flow Range	Up to ± 0.1 to 50 FPS (± 0.03 to 15m/s) Consult factory for higher range
Sensor Type	Standard Clamp-on Sensor for pipe size from 2" to 28" (50 to 700 mm); Small Clamp-on Sensor for pipe size from ½" to 4" (15 to 100 mm); Large Clamp-on Sensor for pipe size from 12" to 200" (300 to 5000 mm); Insertion sensor for pipe size greater than 4" (100 mm)
Sensitivity	0.001 FPS (0.3 mm per sec) at any flow rate including zero
Linearity	To $\pm 0.25\%$ of scale, digital output
Fluid	From clean liquids to multiphase liquids with gases. (Consult factory for multi- phase liquids with gases applications.)

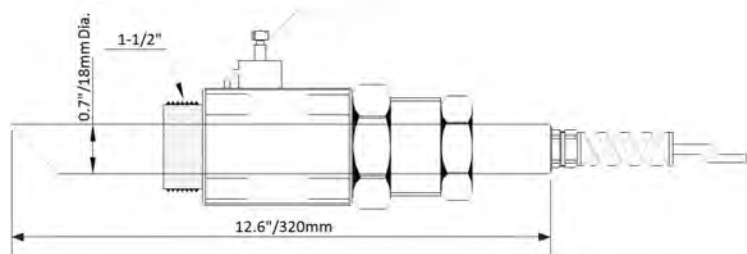
SPECIFICATIONS (CONTINUE)

Power Supply	18 to 36VDC or 90 to 240VAC 50/60Hz
Display	OLED screen, include present and total flow, velocity, signal strength, and Δt
Outputs	Analog: 4 to 20 mA, Max 600 Ω Two SPDT Relays for limit or system alarm, 5A@250VAC / 5A@30VDC
Digital Interface	RS485 Modbus RTU
Operating Temp.	-40 to 158 °F (-40 to 70 °C)
Humidity	0 to 100% R.H.
Encloser	Transmitter: polycarbonate material, IP66 Sensor: 316 Stainless Steel, PP, IP68

DIMENSION



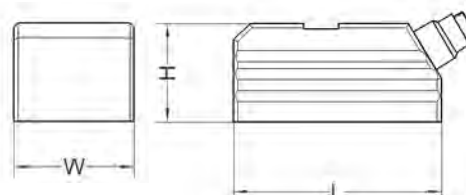
Transmitter



Insertion Sensor

	Standard	Small	Large
L	2.8/71	1.57/40	3.74/95
H	1.46/37	1/25	1.77/45
W	1.46/37	1/25	2.17/55

Clamp-on Sensor Sizes (in/mm)



Clamp-On Sensor

Specifications subject to change without notice.

ORDER CODE

Transmitter

Alpha3000	Single-Channel Ultrasonic Flow meter		
Alpha3200	Dual-Channel Ultrasonic Flow Meter (Consult Factory for 2 channels above up to 5)		
	Encloser		
	-	Standard Encloser	
	-Ex	Ex Proof Encloser	
		Power	
		-AC	220VAC
		-DC	24VDC
Alpha3000	-4	-AC	

Sensor

Alpha3000 Ultrasonic Transmit-Time			
	-XDR	A pair of Ultrasonic Flow Sensor	
		-	Standard Clamp-On Sensor
		-S	Small Clamp-On Sensor
		-L	Large Clamp-On Sensor
		-I	Insertion Sensor
			-C20
	-C30	30' Cable Length	
		-C50	50' Cable Length
			Max. length up to 1500 ft
Alpha3000	-XDR	-I	-C30



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