

1/2" NPT-F INLET/OUTLET PORT

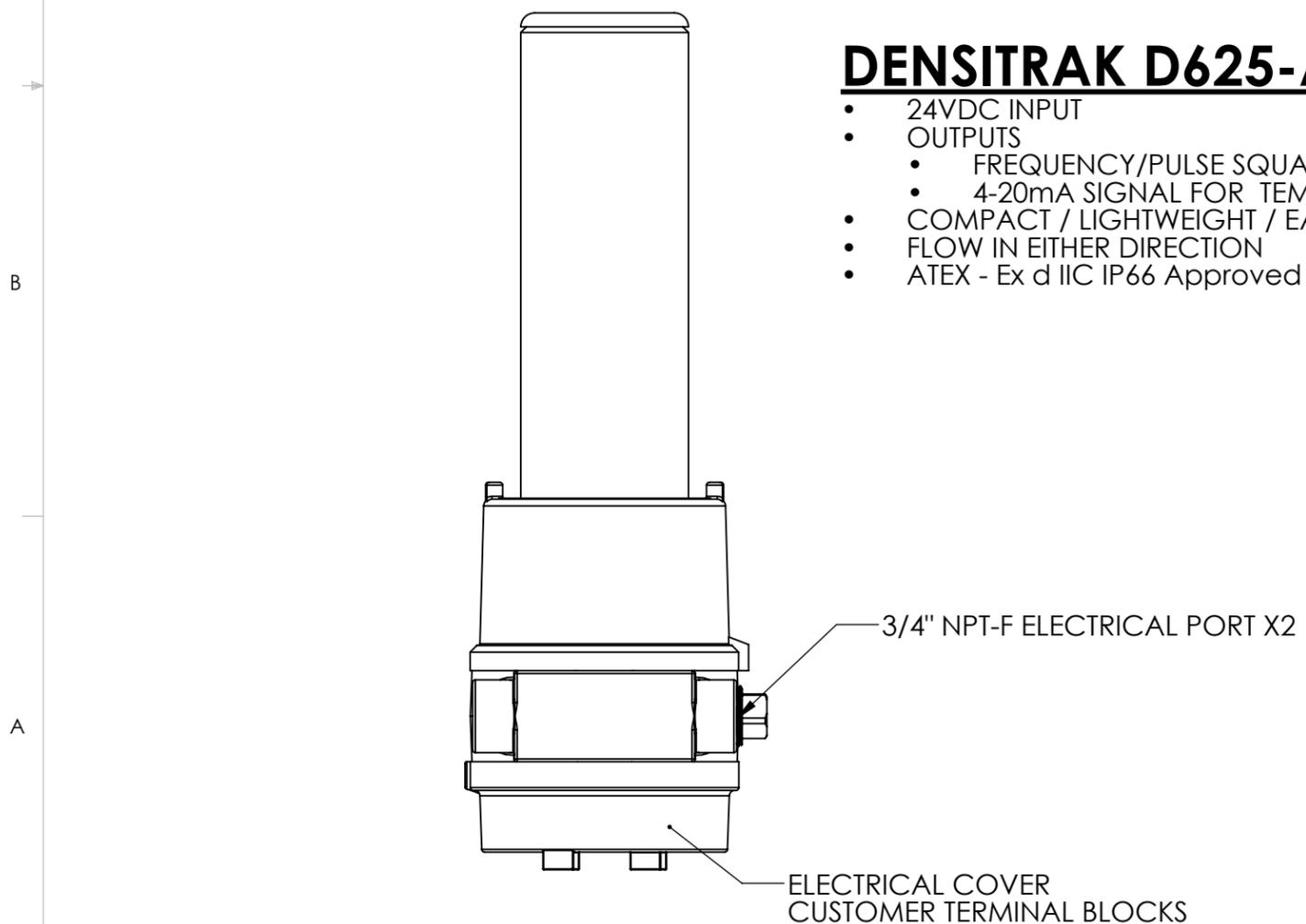
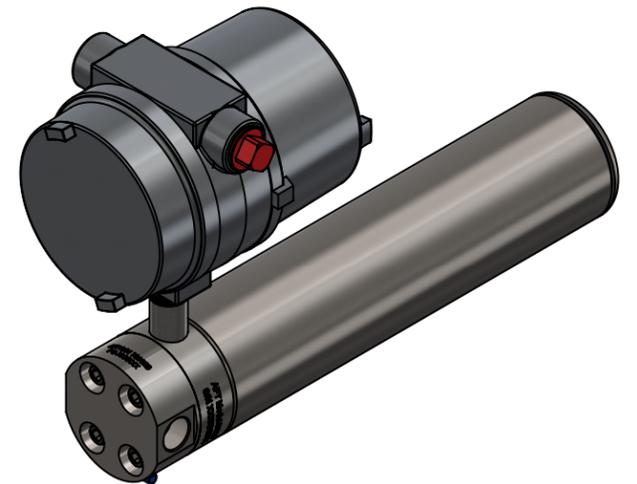
1/2" NPT-F INLET/OUTLET PORT

SHC SCREW X4

GROUND LUG

## DENSITRAK D625-A0-00-00 DENSITOMETER

- 24VDC INPUT
- OUTPUTS
  - FREQUENCY/PULSE SQUARE-WAVE OUTPUT (TO FLOW COMPUTER)
  - 4-20mA SIGNAL FOR TEMPERATURE (0C - 100C)
- COMPACT / LIGHTWEIGHT / EASY INSTALL OPTIONS
- FLOW IN EITHER DIRECTION
- ATEX - Ex d IIC IP66 Approved Cast Aluminum Electrical Enclosure



3/4" NPT-F ELECTRICAL PORT X2

ELECTRICAL COVER  
CUSTOMER TERMINAL BLOCKS

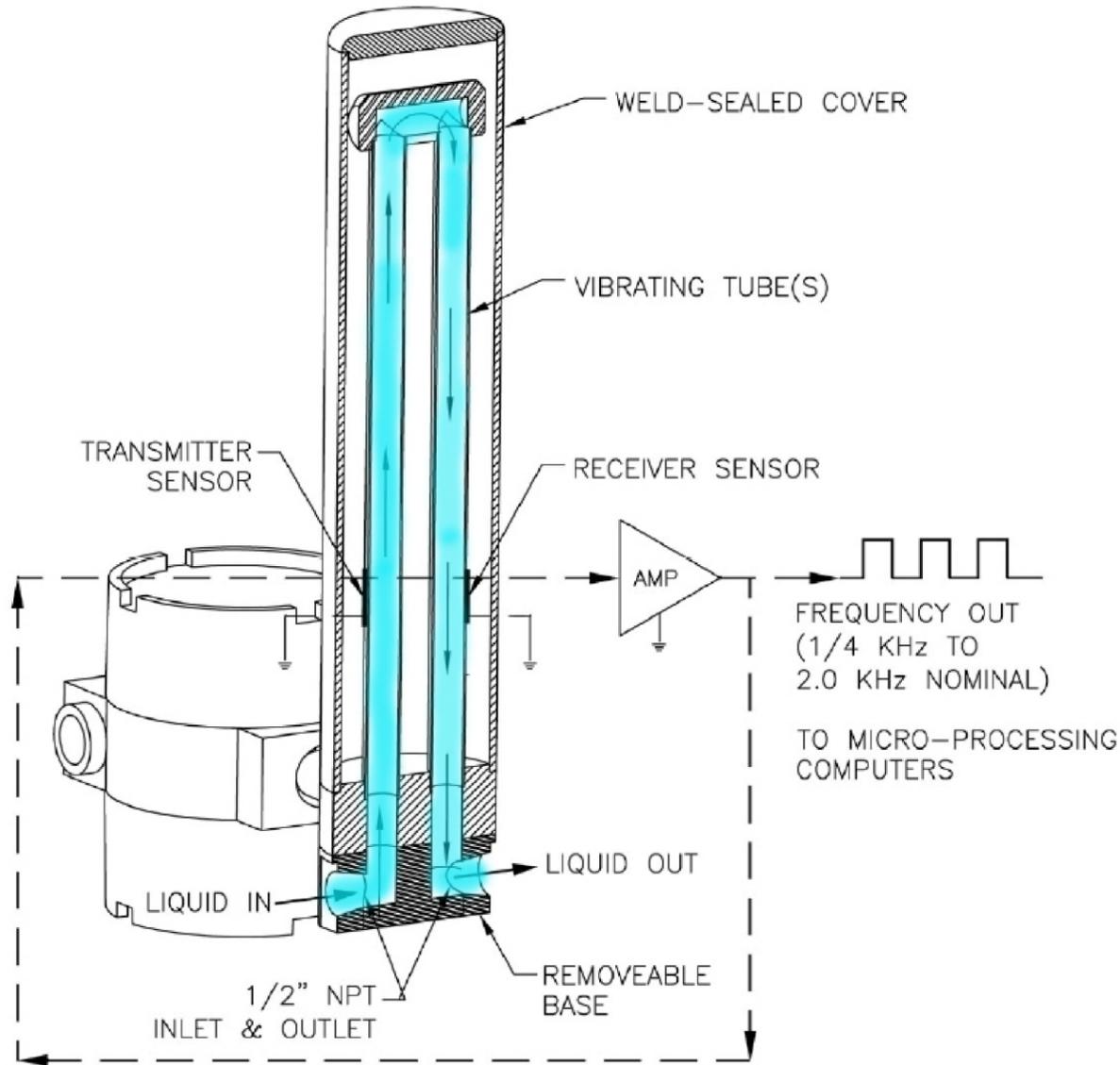
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES REMOVE ALL BURRS AND SHARP EDGES .005 - .015 TOLERANCES: ANGULAR: MACH ±1° BEND ±1° ONE PLACE DECIMAL ±0.1 TWO PLACE DECIMAL ±0.02 THREE PLACE DECIMAL ±0.005		NAME	DATE	 <b>Scottsdale, AZ, USA PH: 480-443-0168</b>
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994		DRAWN	PFH	
MATERIAL		CHECKED		TITLE: <b>DENSITRAK DENSITOMETER D625-A0-00-00</b>
FINISH		ENG APPR.		SIZE <b>B</b> DWG. NO. <b>201011</b> REV <b>NC</b>
DO NOT SCALE DRAWING		MFG APPR.		SCALE: 1:3 WEIGHT: <18LB SHEET 1 OF 2
<b>PROPRIETARY AND CONFIDENTIAL</b> <small>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ANALYTICAL FLOW TECHNOLOGIES, LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ANALYTICAL FLOW TECHNOLOGIES, LLC IS PROHIBITED.</small>		Q.A.		
		COMMENTS:		
		NHA:		

# DENSITRAK D625-A0-00-00 DENSITOMETER

## Technical Specifications:

ANALYTICAL FLOW TECHNOLOGIES D625 Product Specifications Chart

Density Operating Range	0.40 – 2.00 grams/cubic centimeter [gr/cm <sup>3</sup> ]
Maximum Density Span	0.70 gr/cm <sup>3</sup> (range can be extended with reduction in accuracy)
Density Resolution	0.00001 gr/cm <sup>3</sup>
Meter Accuracy	0.0001 gr/cm <sup>3</sup>
Repeatability	Better than 0.01% (full scale)
Operating Temperature	Standard: 32°F to 212°F [0°C - 100°C] Optional: -58°F to 302°F [-50°C - 150°C]
MAX Temp. Differential	ΔT <sub>max</sub> = 90°F [50°C]
Operating Pressure	Range: 0 to 2,220 PSI [0 – 149 bar] ANSI Flanged same as flange rating at 100°F Hydrostatic Test: 1.5 times line pressure
Flow Rate	MIN: .25 Gallons per Minute (GPM) MAX: 30 GPM
Frequency Signal Output	Nominal 0.30 kHz to 3.0 kHz
Temperature Sensor	3 Wire 100Ω Pt CLASS A RTD
Power Requirement	VOLTAGE: 24 V <sub>DC</sub> CURRENT: 450 mA nom.
Materials of Construction	Standard Wetted Parts: 316/316L Stainless Steel, HASTELLOY® C276 Non-Wetted Parts: 304 Stainless Steel
Electrical Classification	Designed to meet NEC/CSA Class 1, Div. 1, Group C & D, CE Mark Housing Approved: CSA, FM, EExd, UL RoHS Compliant. ATEX / IECEx / CE CERTIFIED
Physical Dimensions	SEE DRAWING on PAGE 1 Shipping Weight: Approx. 16-20 pounds



## DENSITRAK D625-A0-00-00 Theory of Operation

The liquid density meter uses the spring mass principle for measuring the fluid density. A portion of the measurement tube is energized (transmit sensor) to vibrate and to maintain its natural resonant frequency by using an electrical feedback driving system. A change in the vibrating mass, (as a result of change in the fluid density) shifts the resonant frequency which is interpreted by the receive sensor. The signal is then output to the density processing unit (or FLOW COMPUTER).

An ANALYTICAL FLOW TECHNOLOGIES density processing unit (SPUD) (or FLOW COMPUTER) uses algorithms that incorporate temperature (integrated into the meter), pressure (via an external pressure transmitter 4-20mA output) and the shift in frequency to determine the density of the measured fluid.

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INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994		CHECKED	
MATERIAL		ENG APPR.	
FINISH		MFG APPR.	
NONE		Q.A.	
DO NOT SCALE DRAWING		COMMENTS:	
NHA:		 Scottsdale, AZ, USA PH: 480-443-0168 TITLE: DENSITRAK DENSITOMETER D625-A0-00-00	
SIZE	DWG. NO.	REV	
<b>B</b>	201011	NC	
SCALE: 1:3	WEIGHT: <18LB	SHEET 2 OF 2	

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