



Part Number: US0012-000

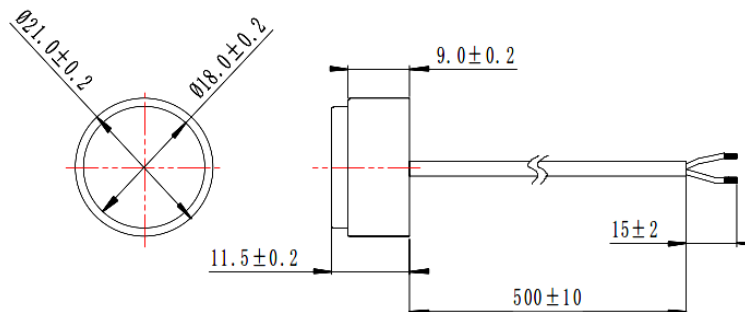
Model Number: T/R975-US0012L391-01

Overview

The transducer is the core element of the ultrasonic flow meters and level sensors. This Audiowell transducer uses the transit time principal where opposite sending and receiving ultrasonic flow sensors are used to transmit signals through the flow. The signal travels faster when moving with the flow stream than against the flow stream. The difference between the two transit times is used to calculate the flow rate.

Designed with a rugged metal case this transducer can be mounted with direct contact to the liquid. The robust design allows for the transducer to be resistant to water pressure affecting performance while decreasing any distortion caused by environmental factors. Its block construction makes for easy mounting and to solder. The lower power consumption allows for battery-operated applications. This is a water pressure resistant design, with very stable performance and high distortion resistance.

Appearance and Dimensions, Unit: mm



Electrical Specifications

Item	Unit	Standard	Test Condition T=25 °C
Thick Resonant frequency (Fs)	KHz	975 ± 30	Agilent 4294A
Resonant impedance (R)	Ω	≤ 110	Agilent 4294A
Static capacitance (C ₀)	pF	1150 ± 20%	Digital Bridge At 1000Hz/1V
Storage Temperature	°C	-25 ~ +55	
Operating Temperature	°C	+4 ~ +120	

TENTATIVE RELEASE:


This specification is based on design objectives and is strictly Preliminary and subject to change. Test data may exist, but this specification is subject to change based on the results of additional testing and evaluation. Application specific specifications will be produced for approval prior to production product being released.

<u>Part No.</u>	<u>Rev</u>	<u>Title</u>	<u>Sheet No.</u>
US0012-000	A2	Ultrasonic Flow Sensor	1 of 2

Notes:

1. Please take Anti interference into consideration when designing driving circuit.
2. Driving voltage is suggested to be lower than 5Vp-p.
3. Maximum pressure endurance is 3.5MPa.

Attention California Residents:

 **WARNING:** This product can expose you to chemicals including Lead, Chromium (hexavalent compounds) and Phthalates (DEHP) which are known to the State of California to cause cancer and birth defects or other reproductive harm." For more information, go to www.P65Warnings.ca.gov

Revision History:

Version	Date (MM/DD/YY)	DWN	Statement
A1	12/10/2014		Updated
A2	4/10/19		Specifications updated

TENTATIVE RELEASE:

This specification is based on design objectives and is strictly Preliminary and subject to change. Test data may exist, but this specification is subject to change based on the results of additional testing and evaluation. Application specific specifications will be produced for approval prior to production product being released.

<u>Part No.</u>	<u>Rev</u>	<u>Title</u>	<u>Sheet No.</u>
US0012-000	A2	Ultrasonic Flow Sensor	2 of 2