

超 声 波 水 表 表 体

Ultrasonic Cold Water Meter Body

一、概述 OVERVIEW

超声波水表表体是作为超声波水表的信号产生部件，其作用是水表线路提准确、稳定、持续的超声信号。

我公司根据建设部颁布的《中华人民共和国城镇建设行业标准》（CJT434-2013）及其他相关规程，综合考虑了各地区对水表流量计量的不同需求，设计了满足户用型超声波水表表体，所搭配的流量传感器具有灵敏度高、性能稳定、使用可靠及功耗低等特点。

Acting as the signal transmitter of Ultrasonic Cold Water Meter, The water meter body is designed to supply precise, stable and continuous ultrasonic signal for heat meter circuit.

In accordance to the “Professional Standard on Urban Construction of The People's Republic of China” (CJT434-2013) and the relevant regulations, Audiowell designs the family used ultrasonic cold water meter body on the basis of comprehensive consideration of different demand in the world market. The ultrasonic flow sensors used have characteristics in high sensitivity, stable performance, low power consumption, and so on.

二、结构组成及原理 Structure and Principle

组成结构：由一对超声波流量传感器、一套管段组件组成。

Structure Composition: A pair of ultrasonic flow sensor and a brass pipe.

三、技术参数 Structure and Principle

1. 产品名称(Name):**HS0014-000**
2. 产品型号(Model):**RC15/HS-US0004-000-01**
3. 传感器性能参数(Electrical specification):

项目 Item	单位 Unit	标 准 Standard	测试条件 Test condition T=25℃
谐振频率 (Fs) Thick Resonant frequency	KHz	975±30	Agilent 4294A
谐振阻抗 (R) Resonant impedance	Ω	≤110	Agilent 4294A
静电容量 (Co) Static capacitance	pF	1350±20%	数字电桥 At 1000Hz/1V

4. 基表参数 Technical Parameter:

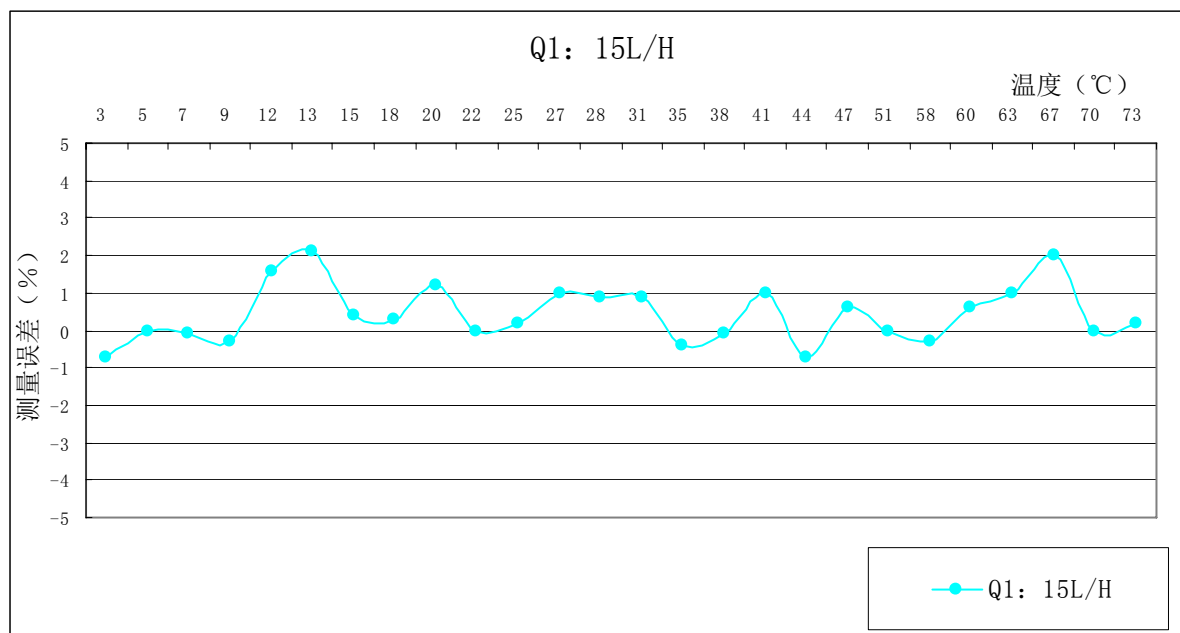
安装长度 L Installation Length	mm	110
连接螺纹 D Connecting Thread		G3/4
最大工作压力 Ultimate Pressure	MPa	1.6
工作温度 Working temperature	℃	0.1~50
安装位置 Installation Position	进水管 Water Inlet	
安装形式 Installation Mode	管螺纹连接 Pipe threaded joint	

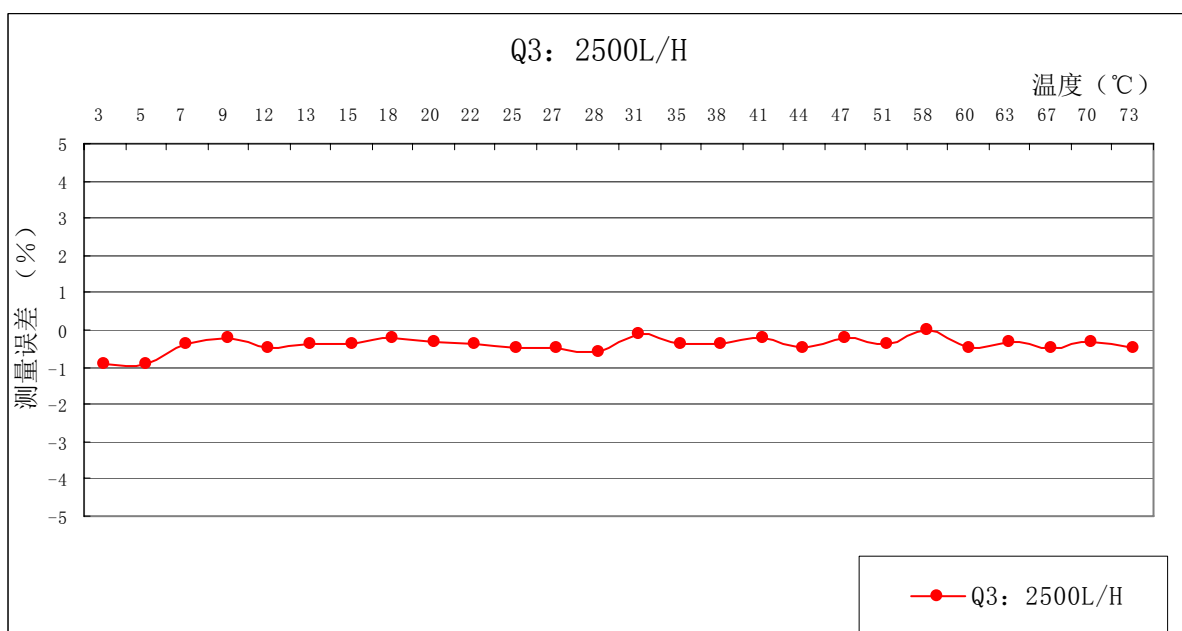
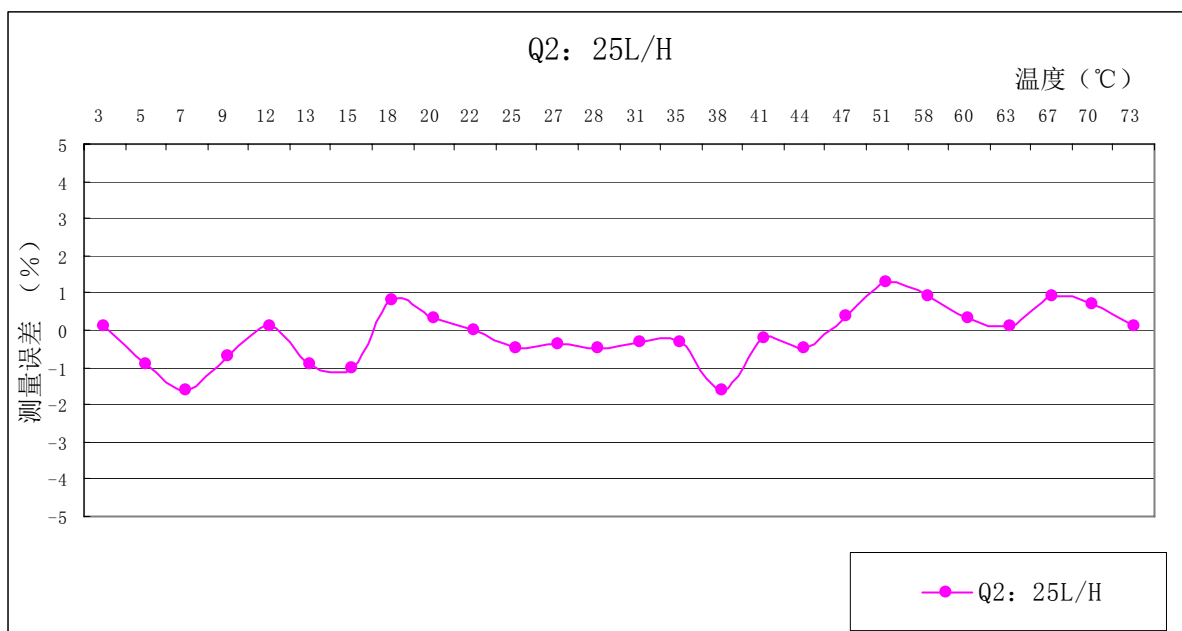
5. 测量精度 Measuring precision:

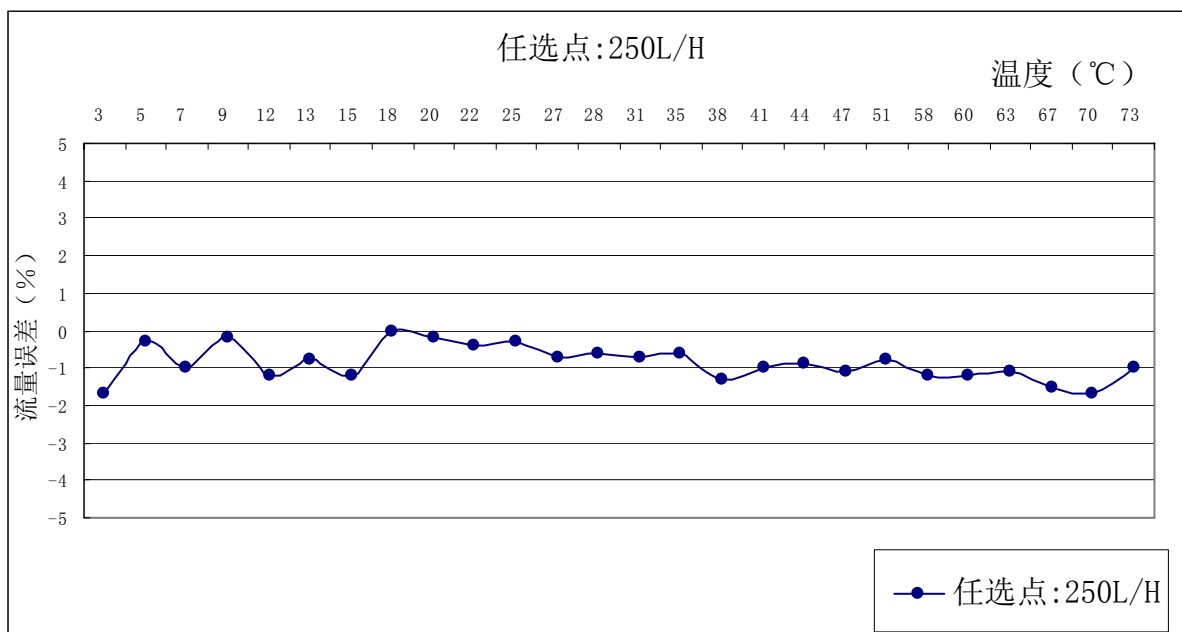
1) 测量精确度 Accuracy of measurement:

测试流量点 Flow point	测量精度 Measuring precision
Q1	±2.5%
Q2	±2.5%
Q3	±1%

2) 测量误差随温度变化曲线 The cure of measurement error with the temperature change:



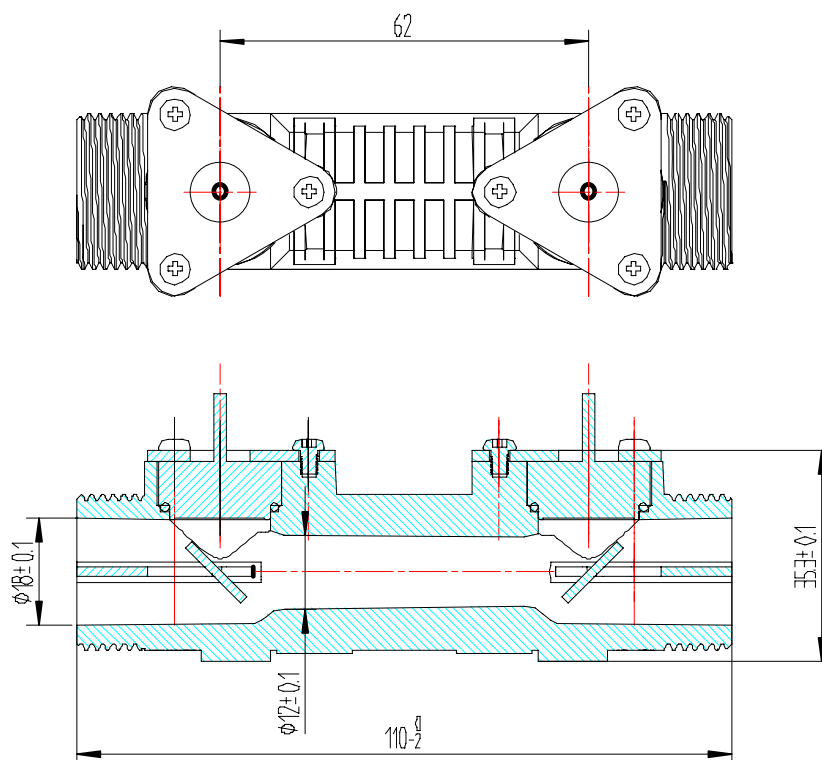




6.

6. 产品外观尺寸 Appearance and dimensions:单位 (mm)

二维结构图 2D structural drawing, 单位 (mm)



7. 产品装配清单 Product List:

NUM	名称 Name	数量 Quantity
1	合金压片 alloy slice	2
2	传感器 sensor	2
3	密封圈 seal ring	2
4	M3 螺钉 M3 screw	6
5	塑料管 plastic pipe	1
6	反射柱 reflection pillar	2

8. 注意事项 Note:

- 1) 存储条件: -20 °C~+55 °C。(Storage Condition:-20 °C~+55 °C.)
- 2) 设计驱动电路时请考虑信号干扰。(Please take Anti interference into consideration when designing driving circuit.)
- 3) 驱动电压建议小于 5Vp-p。(Driving voltage is suggested to be lower than 5Vp-p.)
- 4) 最大耐压 3.2MPa。(The burst pressure is 3.2MPa.)
- 5) 测量精度误差曲线基于与我司线路板搭配使用情况, 对于其它线路板搭配时, 误差不做保证。(For the NO.5, The cure of measurement error is based on our PCB, We can't ensure that it is right when you use others.)

9. 修订记录 Revision history:

文件修订记录 File revision history			
修订时间 Revsion time	修订版本 Version of revision	内部 ECR 编号 The number of ECR	修订内容 Contents of revision
2015/3/30	/	/	新建规格书

制作/日期 Accomplished by/Date		确认/日期 Approved by/Date	
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