TKWL-130系列磁致伸缩液位计

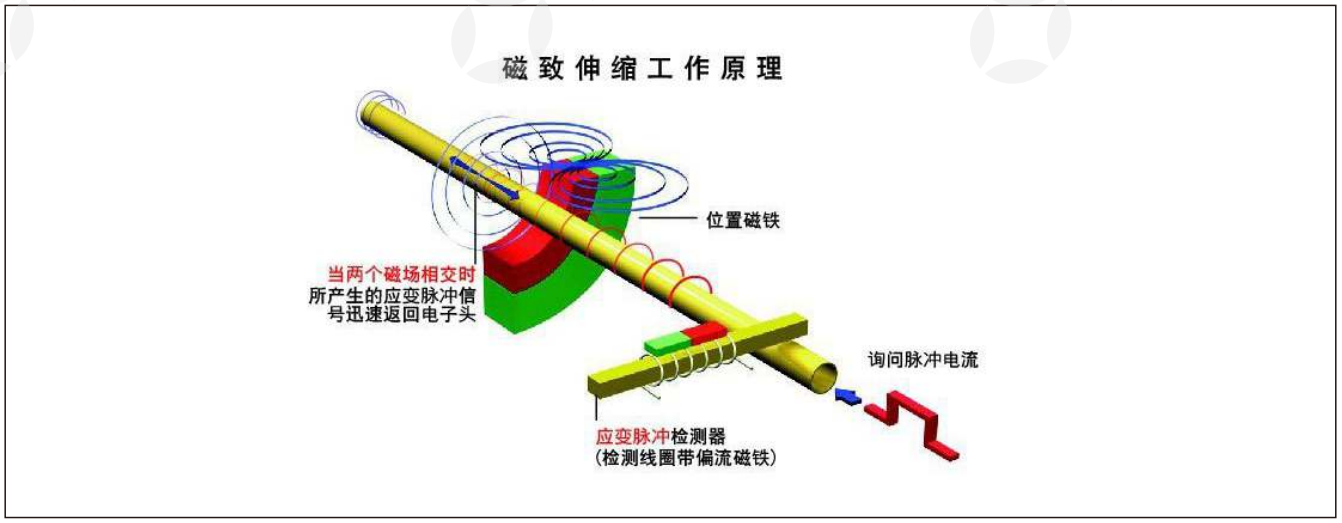
TKWL-130 Magnetostriction Liquid Level Meter

一、工作原理

磁致伸缩液位计的传感器工作时，传感器的电路部分将在波导丝上激励出脉冲电流，该电流沿波导丝传播时会在波导丝的周围产生脉冲电流磁场。在磁致伸缩液位计的传感器测杆外配有一浮子，此浮子可以沿测杆随液位的变化而上下移动。在浮子内部有一组永久磁环。当脉冲电流磁场与浮子产生的磁环磁场相遇时，浮子周围的磁场发生改变从而使得由磁致伸缩材料做成的波导丝在浮子所在的位置产生一个扭转波脉冲，这个脉冲以固定的速度沿波导丝传回并由检出机构检出。通过测量脉冲电流与扭转波的时间差可以精确地确定浮子所在的位置，即液面的位置。

Overview

When the sensor of the magnetostriction liquid level meter works, the circuit of the sensor will stimulate the pulse current on the waveguide wire, which will produce pulse current magnetic field around along the waveguide wire. Outside the sensor's measuring bar is equipped with a floater, which can move up and down along with the changes of the liquid level. Inside the floater there is a group of permanent magnetic ring. When the pulse current magnetic field meets with the magnet ring's magnetic field produced by the floater, the magnetic field around the floater will change, thus making the waveguide wire made out of magnetostriction materials produce a torsional wave pulse in the position of the floater. This pulse returns at fixed speed along the waveguide wire and is detected by the detection institution. By measuring the time difference between the pulse current and the torsional wave, we can accurately confirm the position of the floater, i.e. the position of the liquid level.



二、特点

- 非接触式测量；
- 高精度、高稳定性、高可靠性；
- 使用寿命长；
- 多种信号输出方式选择；
- 具有反向极性保护功能；
- 防雷击、防射频干扰；
- 结构精巧、环境适应性强；
- 不需定期重标和维护；
- 可监测带压或不带压液罐的液位；
- 隔爆、防腐（可选）；
- 安装方便。

Features

- Non-contact measurement
- High accuracy, high stability, high reliability
- Long service life
- Multiple signal output mode selection
- Reversed polarity defensive function
- Lightning protection and anti-radio-frequency interference
- Exquisite structure, strong environmental adaptation
- No need of regular rescaling and maintenance
- Able to monitor the liquid level of pressure or non-pressure fluid tanks
- Explosive-proof and corrosion prevention (optional)
- Easy installation

三、应用范围

- 工业现场液位测量与控制；
- 油罐液位测量；
- 食品饮料液罐控制；
- 大坝水位监控；
- 化工过程液位控制；
- 制药罐液位控制；
- 饮用水和污水处理等。

Application scope

- Liquid level measurement and control on the industrial fields
- Liquid level measurement of oil tanks
- Control of food and beverage containers
- Water level monitoring of dams
- Liquid level control of chemical process
- Liquid level control of pharmaceutical tanks
- Drinking water and wastewater treatment

四、技术参数

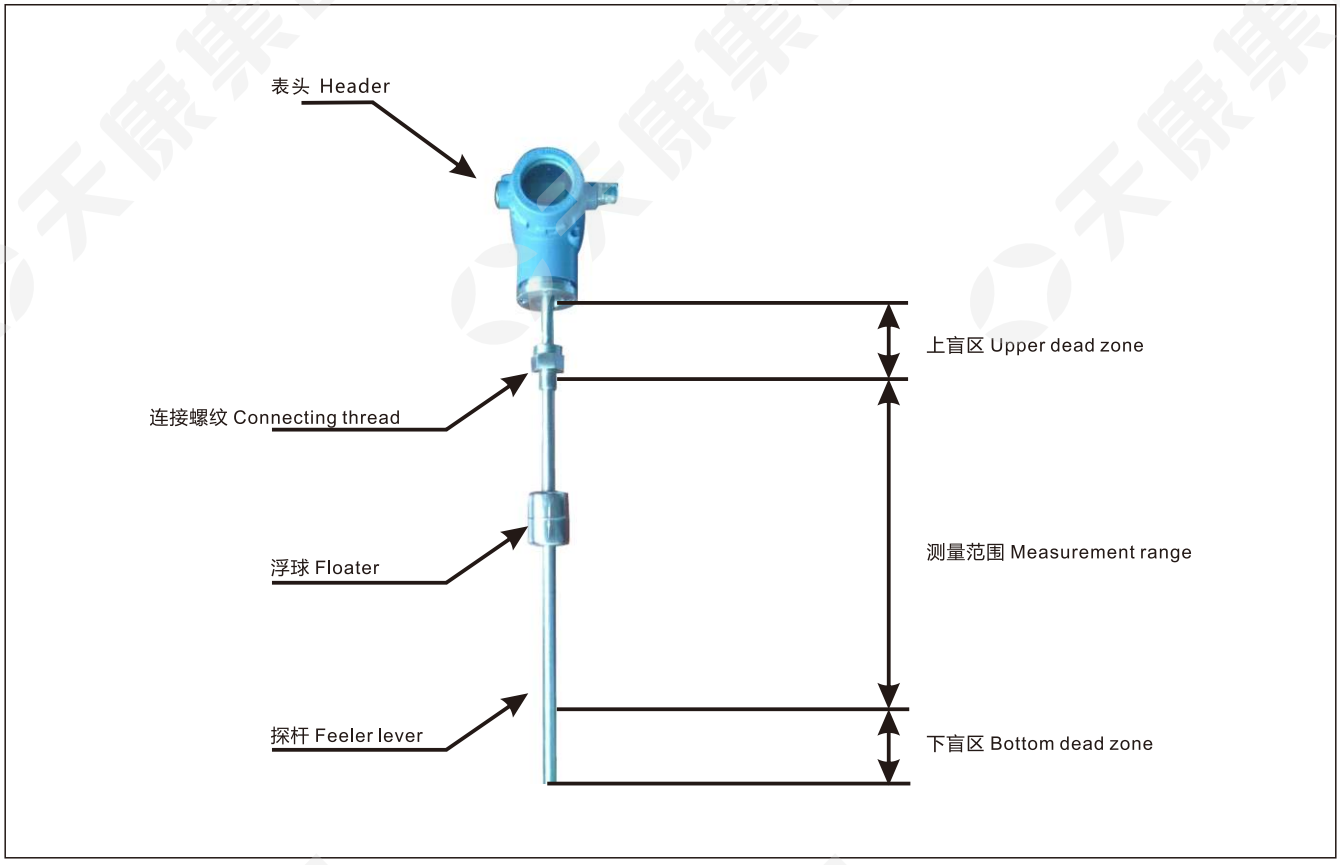
供电电源：24V±2.4V.DC；
工作温度：-40~160℃；
量程范围：用户定制80~6000mm量程范围内产品；
输出形式：4~20mA；
线性误差：±0.05%FS，最高精度1mm。

Technical parameters

Power supply: 24V±2.4V.DC
Operating temperature: -40-160℃
Range ability: Users' customized products within the range of 80-6000mm
Output form: 4-20mA
Linear error: ±0.05%FS, highest accuracy 1mm

五、产品结构

Product structure



TKWL-130系列磁致伸缩液位计订购信息
Order Information of TKWL-130 Magnetostriction Liquid Level Meter

TKWL-130										
安装方式 Installation method 顶装 Top installation A 侧装 Side installation B 其他安装方式 Other installation methods Z										
	触液材质 Fluid contacting materials 304 1 316L 2 304+PTFE 3 316+PTFE 4 其他特殊材质 Other special materials Z									
		过程连接 Process connection 无固定装置 No fixed device O 固定法兰 Fixed flange 法兰标准 Flange standard 固定螺纹 Fixed thread 螺纹规格 Thread specification 其他 Others Z								
			数字显示表头 Digital display header 无显示 No display B0 液晶显示 Liquid crystal display B1							
				接线盒形式 Junction box form 普通型 Ordinary type S 隔爆ExdⅡBT4-6 Explosive-proof ExdⅡBT4-6 D 本安ExaⅡCT4-6 Explosive-proof ExdⅡBT4-6 E					
					测量范围 Measurement range					
						插深 Inserting depth				
							工作压力 Operating pressure			
								工作温度 Operating temperature		
									介质密度 Medium density	

注：产品标配HART通信，4~20mA输出，如需其他通信方式或输入，订货前请说明。
Note: The product's standard configuration is HART communication and 4-20mA output.
If other communication modes or inputs are needed, please illustrate before ordering.