

## SRM900 Magnetostrictive level gauge

**OVERVIEW**

The structural part of the magnetostrictive liquid level sensor is composed of a stainless steel tube (a measuring rod), a magnetostrictive wire (waveguide wire), a movable float (with a permanent magnet inside), and the like. When the sensor is operating, the circuit portion will excite a pulsed current on the waveguide wire that will generate a pulsed electromagnetic field around the waveguide wire as it propagates along the waveguide wire. A float is arranged outside the sensor rod, and the float can move up and down along the rod as the liquid level changes. There is a set of permanent magnetic rings inside the float. When the pulsed current magnetic field meets the magnetic ring magnetic field generated by the float, the magnetic field around the float changes so that the waveguide wire made of magnetostrictive material generates a torsional wave pulse at the position where the float is located. This pulse is along a fixed speed. The waveguide wire is transmitted back and detected by the detection mechanism. By measuring the time difference between the pulse current and the torsional wave, the position of the float, that is, the position of the liquid surface, can be accurately determined.

**BENEFITS**

High reliability: the magnetostrictive liquid level gauge adopts the waveguide principle and has no mechanical movable part.






High precision: high measurement precision, the resolution is better than 0.01% FS

Good safety: magnetostrictive liquid level meter has high explosion-proof performance, intrinsically safe explosion-proof, especially suitable for the measurement of chemical raw materials and flammable liquids

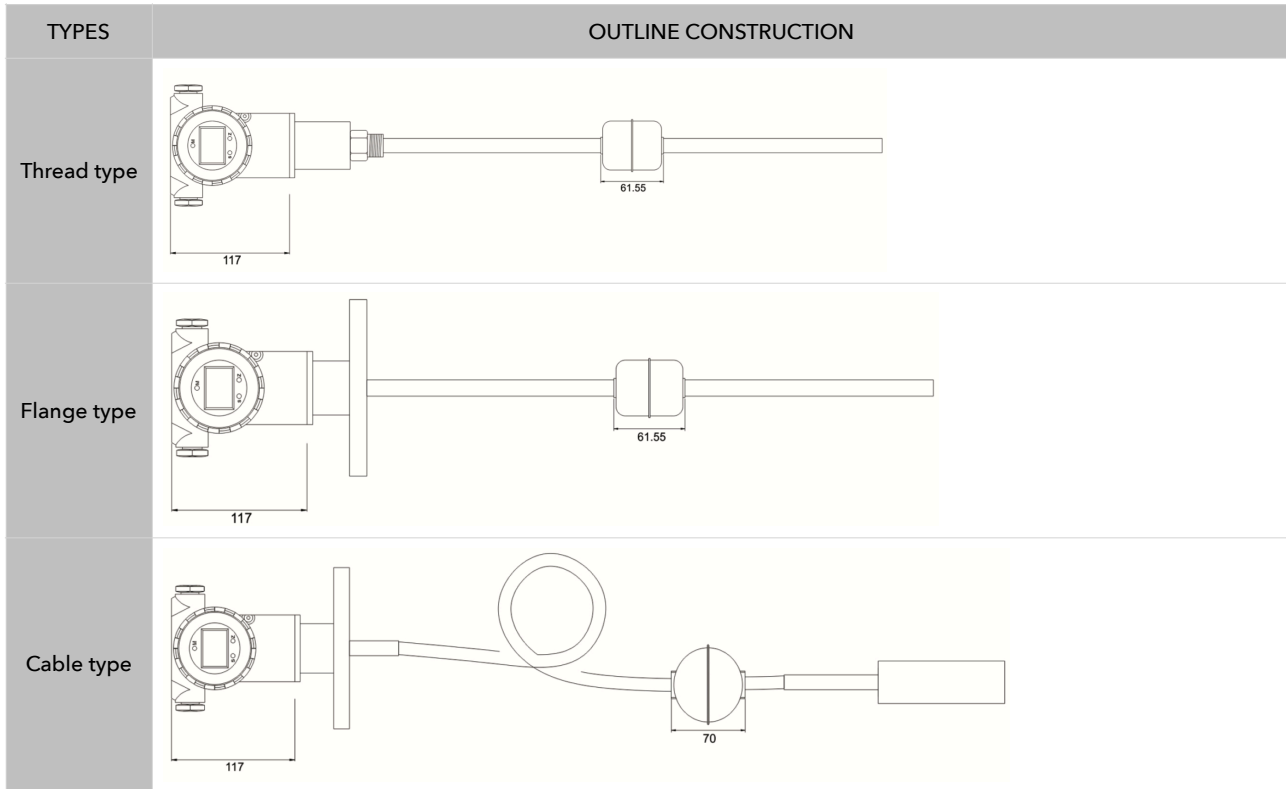
**SPECIFICATION**

ITEMS	PARAMETER
Power supply	24V±2.4V. DC
Working temperature	Electronic part: -30 °C ~ +80 °C, Rod part: -30 °C ~ +110 °C
Range	Hard rod: 150mm~7000mm, soft rod: up to 20000mm
Accuracy	0.1% F.S.
Output form	4~20mA; 0~5V; 0~10V; ±5V; ±10V; RS485
Linearity error	better than ±0.05% FS; sensor with a range less than 300mm, error less than 150 μm
Repeatability	better than ±0.002%FS
Output temperature drift	50ppm/°C
Product power consumption	≤ 50mA
Output ripple	≤ 20mV
Dead zone	Soft rod: upper dead zone: 100mm, lower dead zone: 300mm Hard rod: upper dead zone: 51mm, lower dead zone: 36mm, with black line logo (can be modified according to customer requirements)
With load capacity	4~20mA output; with load capacity ≤ 500 Ω; 0~5V, 0~10V output: minimum controller load ≥5kΩ
Rod material	0Cr18Ni9, 1Cr18Ni9Ti or user-specific customization
Electronic casing material	1Cr18Ni9Ti
Lead mode	1. Shielded cable connection, the default length is 1.5m (special size can be customized) 2. Aviation plug connection 3. Terminal connection;
Float material	0Cr18Ni9, 316, rubber
Installation form	threaded installation, connector installation, positioning ring installation, suspension installation or special customization
Type of explosion protection	ExdIIBT5, Exial IBT5, ExdI ICT5
Protection level	IP65

MODEL TYPES

 <p>ISO 9001 ATEX CE</p>	<p><b>304SS basic type magnetostrictive level transmitter</b></p> <p>Application: suitable for liquids          Voltage: DC24V (default)          Temperature: -30 ° C ~ +80 ° C          Pressure: -98Kpa~1Mpa          Output: 4~20mA/RS485          Accuracy: 0.1%          Default connection interface: G1" thread          Weight: 1.5Kg</p>
 <p>ISO 9001 ATEX CE</p>	<p><b>PP basic type magnetostrictive level transmitter</b></p> <p>Application: suitable for corrosive liquid          Voltage: DC24V (default)          Temperature: -30 ° C ~ +80 ° C          Pressure: -98Kpa~1Mpa          Output: 4~20mA/RS485          Accuracy: 0.1%          Default connection interface: G1" thread          Weight: 1.5Kg</p>
 <p>ISO 9001 ATEX CE</p>	<p><b>304SS rob type magnetostrictive level transmitter</b></p> <p>Application: suitable for liquids          Voltage: DC24V (default)          Temperature: -30 ° C ~ +80 ° C          Pressure: -98Kpa~4Mpa          Output: 4~20mA/RS485          Accuracy: 0.1%          Default connection interface: G1/5" thread or flange          Weight: 2Kg</p>
 <p>ISO 9001 ATEX CE</p>	<p><b>304SS cable type magnetostrictive level transmitter</b></p> <p>Application: suitable for liquids          Voltage: DC24V (default)          Temperature: -30 ° C ~ +80 ° C          Pressure: -98Kpa~3Mpa          Output: 4~20mA/RS485          Accuracy: 0.1%          Default connection interface: G1/5" thread          Weight: 3Kg</p>
 <p>ISO 9001 ATEX CE</p>	<p><b>Anti-corrosion cable type magnetostrictive level transmitter</b></p> <p>Wetted material: PTFE          Application: suitable for corrosive liquids          Voltage: DC24V (default)          Temperature: -30 ° C ~ +80 ° C          Pressure: -98Kpa~2Mpa          Output: 4~20mA/RS485          Accuracy: 0.1%          Default connection interface: thread or flange          Weight: 3Kg</p>

**TYPICAL DIMENSION**



**ORDER CODE**

Code:	A	-	B	-	C	-	D	-	E	-	F
SRM900	A	-	1	-	A	-	2	-	G	-	A

Types	Code A
SS304 basic type	A
PP basic type	B
SS304 rob type	C
SS304 cable type	D
Anti-corrosion cable type	E
Length	Code B
1000mm (standard)	1
Rod length 1000mm~3000mm optional	2
Cable lengthening split 1~20000mm optional	3
Voltage	Code C
220V AC 10%	A
24V DC ± 10%	D

Material	Code D
304 (standard)	1
316	2
anti-corrosion type, surface sprayed with PTFE	3
Process connection	Code E
G1" thread (standard)	G
1 " NPT thread	T
flange installation (specify flange specifications and standards)	F
customized	C
Other parameters	Code F
A normal temperature -°C	
B atmospheric pressure -Kpa	
C degree of protection: IP65	
D Flameproof rating: ExdIICT5	
E maximum temperature -°C	
F Maximum pressure Kpa or Mpa	