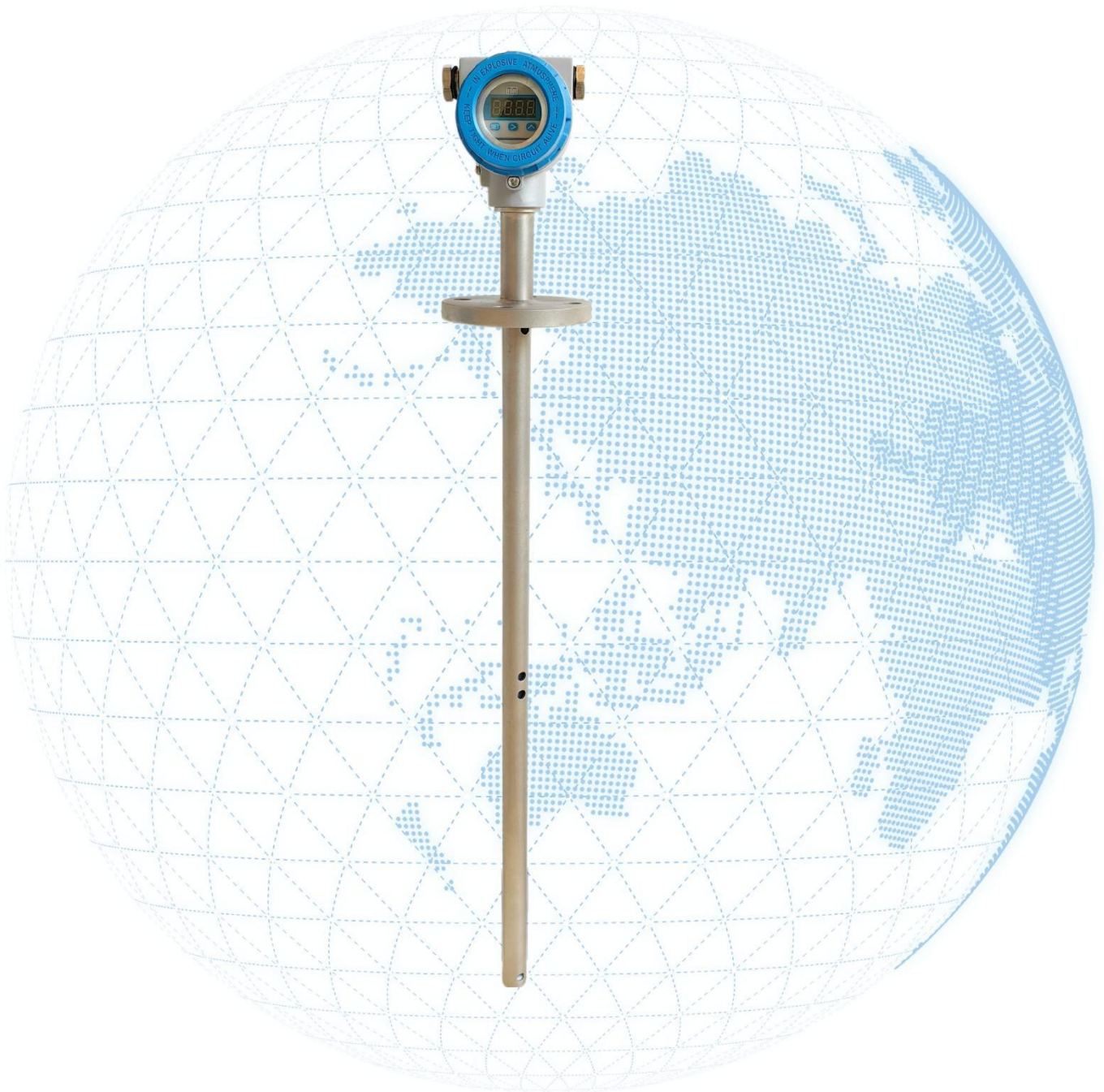


Product Manual | Capacitance Liquid Level Gauge



Working Principle:

HBY type capacitance liquid level gauge utilizes capacitance gotten from physical changes provided by the probe and the container to present a linear variation pattern as the content (liquid) level changes, then convert the variation into 4 ~20mA DC standard output signal. This type adopts the design of radio frequency with stable amplitude and is featured with good anti-interference and reliability, so it becomes easy and simple to measure the liquid level of the mediums under complex environments.

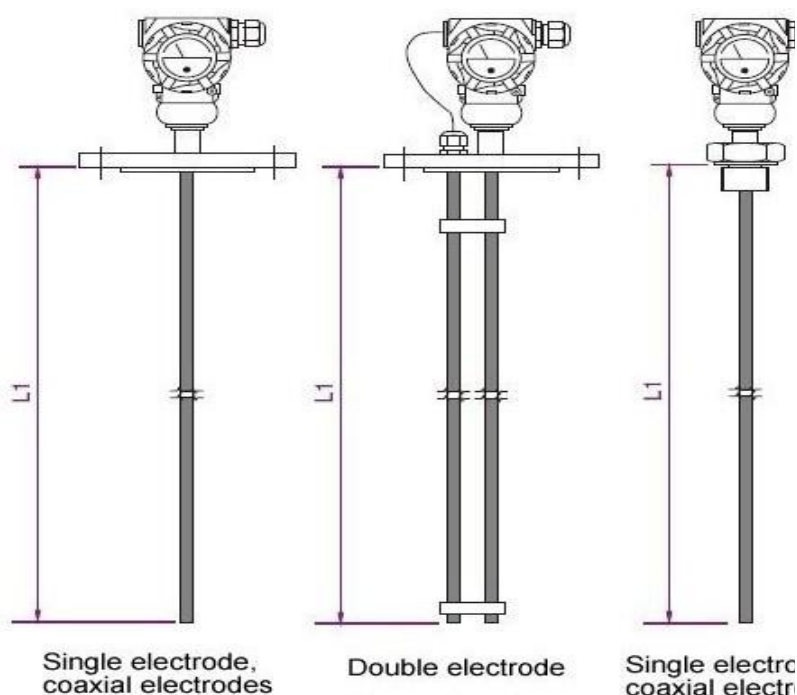
Features:

1. Continuously measuring the level of almost all strong and weak corrosive mediums.
2. High work temperature, $-190 \sim +250^{\circ}\text{C}$.
3. High work pressure, $-0.1 \sim 32\text{MPa}$.
4. Almost independent of effects such as pressure, temperature, humidity etc. on measurement.
5. High anti-interference, stability and reliability.
6. Explosion-proof design.
7. Customization.

Application:

HBY series capacitance liquid level gauge could continuously measure all strong or weak corrosive medium or non corrosive medium. This series products have been extensively and successfully used in many fields, such as petroleum, chemical industry, fertilizer, metallurgy, nature gas, generate electricity, Sewage treatment and food etc.

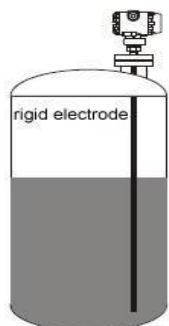
Dimension:



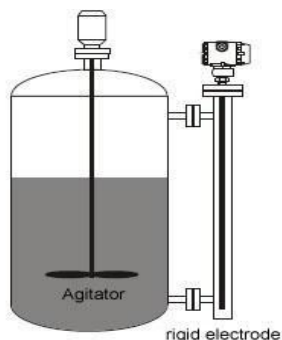
Technical parameters:

Electrode:	Single electrode(metal tank); double electrode(nonmetallic tank)
Type of electrode:	1. Steel less rigid electrode
	2. Steel less flexible electrode
	3. PTFE jacket rigid electrode
	4.PTFE jacket flexible electrode
Measuring range:	rigid electrode:0~3m (or customize)
	Flexible electrode:0~60m (or customize)
Accuracy class:	0.5, 1.0, 1.5, 2.0
Transmitting:	> 1000m
Signal output:	2 wire 4~20mADC
Loading resistance:	0~600 Ω
Pressure (bar):	6, 10, 25, 64,~320
Operating temperature:	-190 ~ 200 °C
Environment temperature:	-50~ +80 °C
Relative Humidity:	≤85%
Maximum grain:	≤2mm
Process connection:	1. Flange: DN20~DN150 2. M27*2 thread 3. Customize
Electrical connection:	M20*1.5 female thread
Explosion-proof:	ExbIICT6Gb

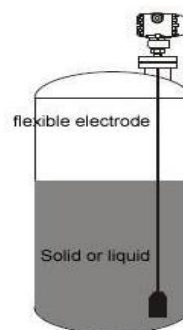
Installation:



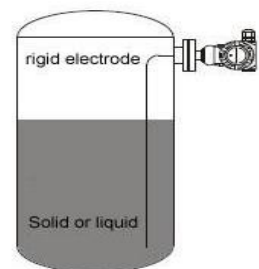
Top mounted



Bypass installation



Top mounted



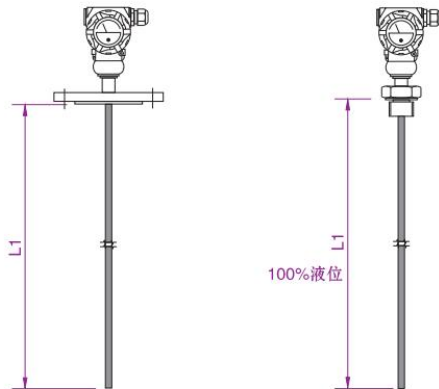
Angle installation

Selection:**How to order:**

1. Installation type							
51	52	53	54	55	56	320	
304+PTFE	Double electrode	Coaxial electrode	304 electrode	F4 flexible electrode	316L electrode	Ammonia dedicated	
2. Process connection							
33		Flange: DN/RF, M, MF optional (DN25/RF for standard)					
M33*2 thread		Note: Flange standard: PN ≤ 160, HG/T 20562-2009; PN ≥ 160, HG/T 20615-2009					
3. Flange material							
P1-304	P2-316L	P3-321	P4-1Cr18Ni9Ti	P5-0Cr18Ni9Ti	P6-00Cr17Ni14Mo2		
PP - Polypropylene			T-Ti	F - 304+PTFE	X-Customization		
4. Operating temperature							
A		B		C		D	
-40~100℃		-40~150℃		-200~100℃		-200~200℃	
						350℃	
5. Operating pressure							
B	D	E	F	G	H	R	K
10	25	40	63	100	160	260	320
6. Display							
No mark: N/A		M1: Needle meter		M2: LED		M3: LCD (HART)	
7. Measuring range L1							
<input type="checkbox"/> - Directly write the value (mm, rigid electrode ≤ 4m, flexible electrode ≤ 30m)							
8. Medium							
Y		J		G		T	
Liquid (no bubble)		Slurry(not adhere)		Solid (diameter ≤ 2mm)		Customize	
9. Permittivity (Dielectric constant)							
Value of permittivity							
10. Explosion - proof							
N				e			
N/A				Exd II CT6Gb			
HB Y - 1 2 3 4 5 6 7 8 9 10							

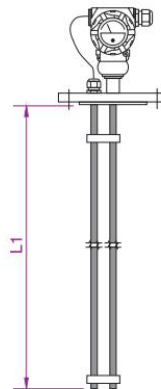
Structure:

Single Electrode
HBY51
304+PTFE



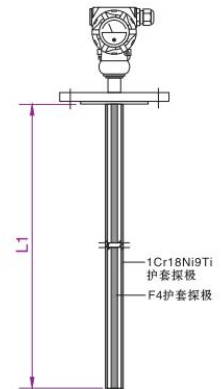
Suitable for metal containers, conductive medium

Double Electrode
HBY52
304+PTFE

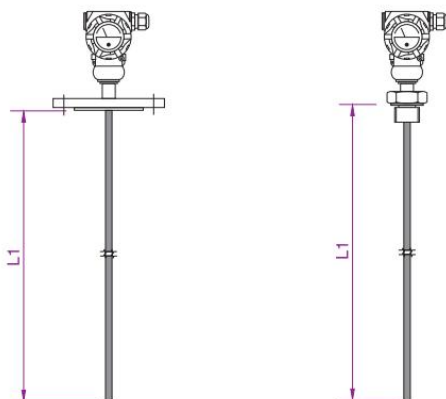


Suitable for non-metallic containers, conductive medium

Coaxial Electrode
HBY53
304+PTFE

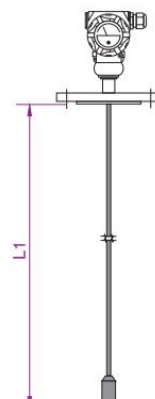


Single Electrode
HBY54
304 or 316L



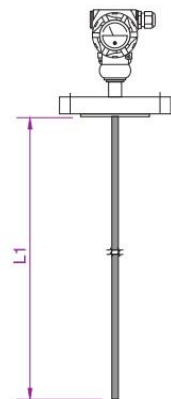
Suitable for non-metallic containers
and non-conductive medium

Flexible Electrode
HBY55
304 or 316L



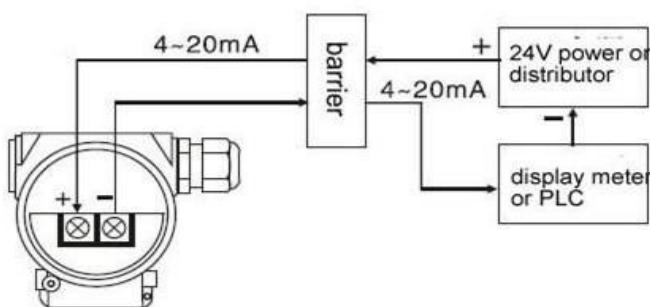
Suitable for metal containers, conductive
or non-conductive medium

Single Electrode
HBY302
Ammonia Dedicated

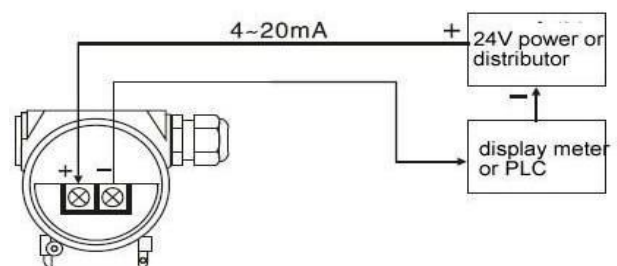


Electrical connections:

Explosion proof sites



Non explosion proof sites





Chengdu JSH New Material CO., LTD.

WEB : www.instrava.com

Email : info@instrava.com

Whatsapp



Wechat



Manufacturer 1 : Zigong City, Sichuan Province, China

Manufacturer 2 : Chengdu City, Sichuan Province, China