Part One, overview

XYH series hydrogen generator is an economic and practical laboratory hydrogen source products, compared with traditional laboratory hydrogen cylinders, security has greatly improved, lab to replace the cylinder is an excellent choice. Its peripheral facility requirements for the work environment is very simple, just a standard power supply can operate, and continuous production of high purity hydrogen. Instrument using alkaline electrolyte aqueous solution, the high pH alkaline solution can inhibit the growth of bacteria in the electrolyte membrane, can avoid electrolytic membrane pollution caused by the growth of microorganisms, and instrument electrolyte membrane to the requirement of water quality is not high, not poisoning due to water quality problems caused by the film.

Part Two, the principle of work

Instrument working principle is based on electrolytic method to produce hydrogen gas, with precious metal electrodes, using the latest XY membrane process technology, special electrolytic liquid on the separation pool cathodic electrolysis to produce high purity hydrogen and anode to produce oxygen, oxygen is released into the atmosphere, hydrogen purification, output after drying.

Program control instrument adopts high sensitivity pressure control system and flow automatic tracking system, the stability of pressure is less than 0.001 Mpa. Flow automatic tracking system according to the amount of hydrogen gas machine automatic tracking the size adjustment. When the equipment stop gases, the instrument will automatically stop producing gas, to eliminate the phenomenon of overpressure system and used to secure them

Part three, technical indicators

Gas flow rate, XYH - 500-500 ml/min

XYH - 300-300 ml/min

Output pressure: 0-0.4 Mpa (0.3 Mpa) the factory Settings:

Pressure fluctuations: + / - 0.001 Mpa or less

The gas purity: 99.999%

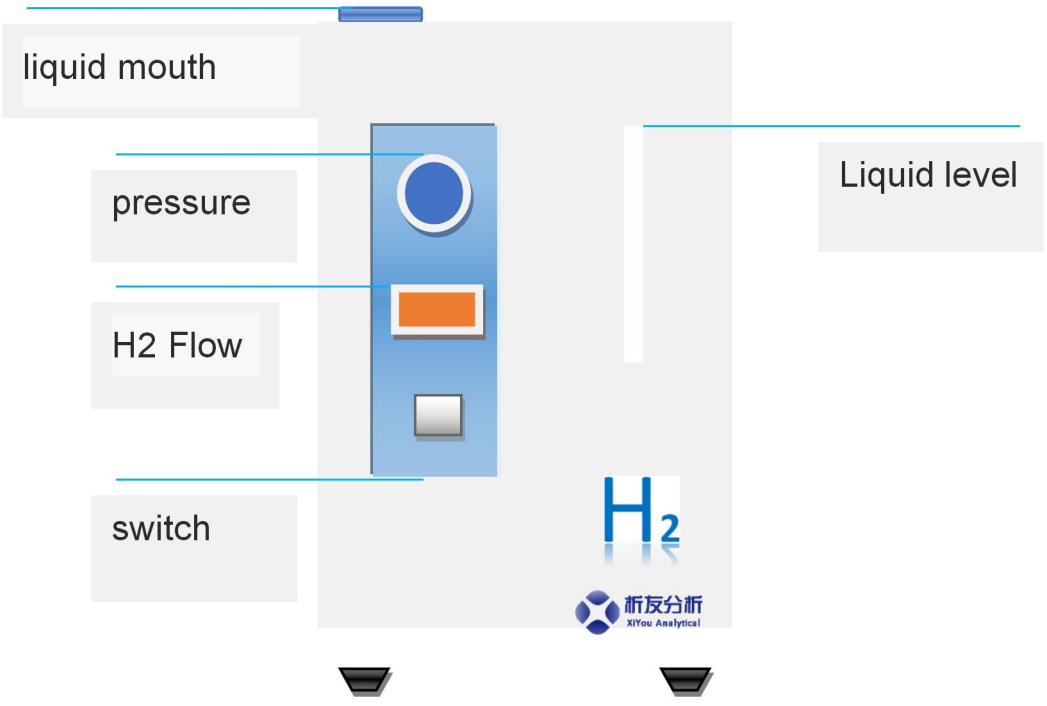
Output interface: 1/8 of an inch pipeline interface

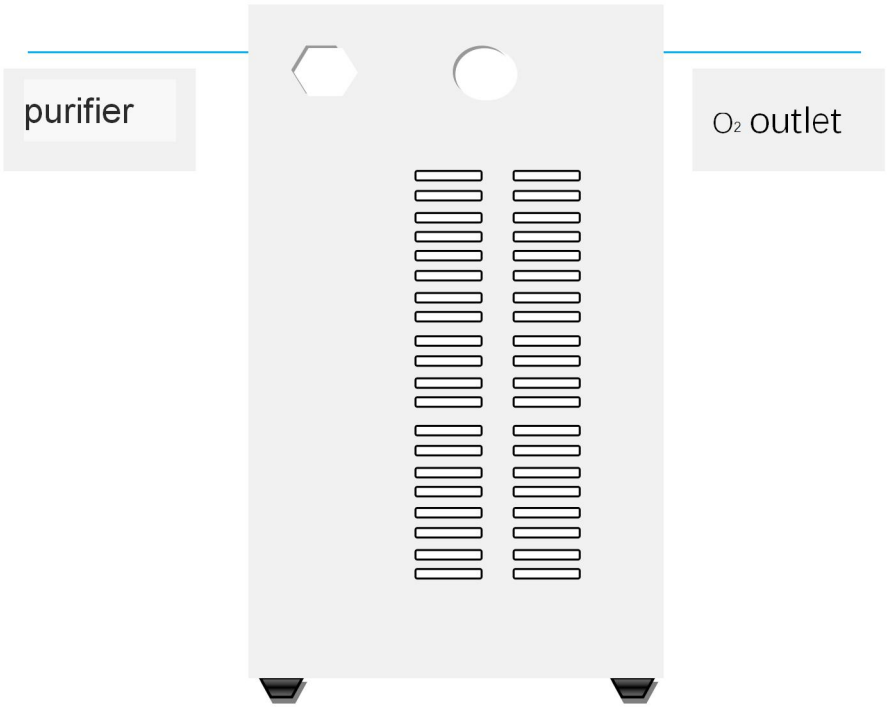
Power requirements: 200-200 vac, 50-60 hz

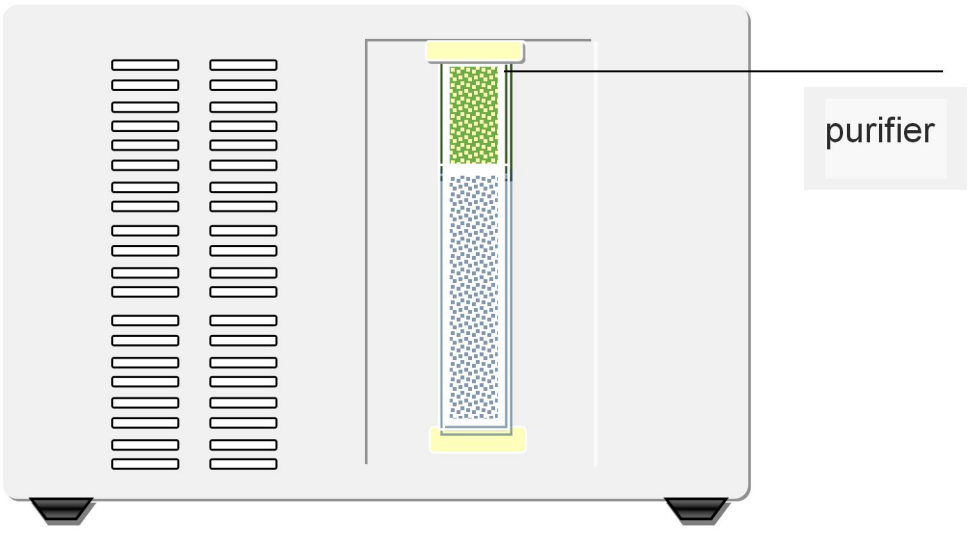
Dimension: 320 * 185 * 350 mm

10 kg net weight:

Part four, name of each part of the instrument







Part Five, the instrument installation and use

1, the instrument from the boxes, observation instrument damage of the surface of the presence of transportation, and check the goods quantity on the packing list whether is complete.

2, put place should meet the following requirements:

Good ventilation;

Away from the radiator or heating pipe heat source area;

No vibration, direct sunlight, dust and corrosive gas, dry environment;

Ambient temperature: 10 ℃ and 40 ℃;

Environmental relative humidity: 85% or less.

3, before starting to prepare:

Compound electrolyte: dissolved in 500 ml of distilled water (type 300 is: 120 g, 500:150 g), potassium hydroxide, stay solution into the tank after cooling, adding distilled water to the scale level. (inlet is located in the top of the instrument, liquid injection after remove the cover. Work shall ensure that instrument "O2" mouth open, such as instruments to stop working for 15 days, please take out the electrolyte)

4, self-checking instrument:

A, the instrument output cap screw, connect the power cord, open the power supply. Instrument flow is shown as: 500 ml/min (XYH - 300 of 300 ml/min). Output pressure slowly rising, while after reaching the set value (0.3 MPa), flow down, finally is shown as "000", apparatus qualified self-inspection. If display Numbers greater than zero, please use soap to check output, see if nut tightening.

B, after completing the above operation, shutdown and nut will be output. (please keep for instrument self-check) using pipeline through to gas equipment (or gas purification plant). Open the power supply equipment.

C, the instrument should be paid attention to when using the flow according to whether agree with gas gas equipment, such as flow

according to the dosage is bigger, the gas appliances should stop leak detection. (at this point to check whether there is leakage phenomenon and join or gas equipment resolved).

Part Six, instrument, etc

1, low requirement to the supporting facilities, to work in a 220 v ac power.

2, the operation is simple, open the power supply to generate hydrogen.

3, stable output pressure, figures show that gas flow, eye-catching intuitive.

4, simple maintenance, instrument for the first time after alkaline use, only need to add distilled water in electrolytic cell on a regular basis. Replaced periodically drying tube, without having to remove the cabinet.

5, high safety, instrument equipped with two levels of over voltage protection, when pressure is more than set value, the instrument automatically cut off the circuit to stop producing gas. Equipped with gas liquid separator in the gas path, ensure that liquid will not go to the gas phase in the system. To ensure that the use of alkaline liquid as the air supply security of the electrolyte.

Part Seven, instrument maintenance and operating considerations

1, the drying tube should be replaced periodically, when drying tube color silica gel 50% of discoloration occurs, should replace the inner packing. In ways: shut off the power, and gas emptying system (pressure drop to zero). Will purge line according to the direction of

the arrow, screw down to unscrew the purge line end cover, replace the silica gel desiccant.

2, packing processing method: color silicone baking in 120 ℃ oven for 12 hours; Molecular sieves in 250 ℃ to 300 ℃ in the muffle furnace burning of 24 hours.

All three should be paid attention to, change the desiccant will absorbent cotton into the pipe, to ensure that had no effect on the seals, to ensure that can be sealed after the end cover and tighten.

4, when installation according to the direction indicated by an arrow tighten, boot after using soap leak detection, and ensure the seal.

5, dry is not allowed to do STH without authorization winding on the surface of the pipe thread sealing tape, otherwise it will result in the crack of the drying tube, not seal.

6, instrument working electrolyte of energy consumption, should be used according to the situation, adding distilled water on a regular basis, ensure the liquid level between the upper and lower scale.

7, electrolyte suggest change once every six months, replacing the electrolyte, first drew instrument of waste alkali liquor, add distilled water, open the instrument, make the system electrolytic cleaning system about 5-10 minutes, taking distilled water, then add the new electrolytic lye.

8, instrument display value flow is according to the load in the pool of electrolytic current shift, in shock, there may be a slight change to display values in + 10 changes within the normal range, but can still be stable output flow supply.

Eight, instrument common faults and ruled out

phenomenon	reason	Check	troubleshooting
Instrument can't start	1, the circuit is not connected 2, switch power supply damage	1, check the circuit 2, measuring cell voltage (DC2.3 V or so)	1, repair circuit 2, change of switch power supply.
The output pressure exceeds set pressure 0.1 MPa	1, the tracking system light barrier. 2, damage of tracking system.		1, adjust the light barrier 2, change tracking system.
Pressure reach the set value, flow display bigger than actual usage.	1, gas path system leakage. 2, separation pool against leakage		1, see note 1 2, separation pool can't repair, please contact the dealer or our factory.

Note 1: when the instrument pressure reach the set value, the first observation of flow meter, such as flow display is slightly greater than usual, the basic point of leak can be concluded that pneumatic system. Handling: shut off the power, gas path, use hydrogen export seal nut sealed tightly, open power supply, the pressure can achieve value,

and whether the flow according to achieve "000". If can display back to zero, the flow shows the instrument itself there is no leakage, please check after gas outlet pipe, and the gas equipment whether leak. If not display back to zero, shows that instrument exists leakage point, please use soap to check whether there is a dry pipe and all interface leakage phenomenon. If not checked out drying tube leakage, please get in touch with production units, in order to obtain technical support.