



HI1048S

pH Electrode with Clogging Prevention System (CPS™) and Screw Connector

Categories: Hanna Instruments, Lab Equipment

Description

The HI1048S is a glass body, refillable, sleeve junction pH electrode with a screw connector. This electrode features a double junction reference, Hanna's Clogging Prevention System (CPS) technology and spherical glass sensing bulb made with general purpose glass. This pH electrode is ideal for wine must and juice due to their high solids content that would clog a standard general purpose pH electrode.

- Clogging Prevention System (CPS™) Technology
- Double Junction Design
- Refillable Electrode

The HI1048S uses general purpose (GP) glass, spherical bulb, glass body, sleeve junction with CPS™ technology, double junction and is refillable with 3.5M KCl,

making it ideal for wine must, juice, and other samples with a high solids content.

General Purpose Glass Formulation

- General Purpose (GP) glass, as the name implies, is a standard glass formulation that is used for general use.
- A pH electrode with GP glass will have a resistance of 100 megaohms at 25°C and is suited for measuring pH of samples that are at ambient temperatures.
- The HI1048S is suitable to use with samples that measure from 0 to 80°C.

Spherical Glass Tip

- The spherical shaped tip design allows for a wide area of contact with the measured sample.
- This permits a faster electrode response with a higher degree of stability.

CPS Sleeve Junction

- Clogging Prevention System (CPS) technology is an innovation in for the improvement of pH measurements in samples that have a high solids content.
- Conventional pH electrodes use ceramic junctions that can clog quickly when used in samples that have a high solids content such as wine must or juice.
- When the junction is clogged, the electrode does not function.
- CPS technology utilizes the porousness of ground glass coupled with a PTFE sleeve to prevent clogging of the junction.
- The ground glass allows proper flow of the liquid, while the PTFE sleeve repels solids.
- As a result, pH electrodes with CPS technology take up to 20 times longer to be fouled as compared to conventional electrodes.

Double Junction Reference

- A double junction electrode has an internal compartment surrounding the reference wire.
- Silver ions are present in the electrolyte of the internal compartment, which houses the Ag/AgCl reference wire; the electrolyte outside this compartment is silver free.
- The double junction design means that virtually no silver from the electrode enters the sample.
- This design allows measurement in applications where silver ions in the sample are undesirable or for samples that contains sulfides that can cause the silver to precipitates and clog the junction.
- Clogging of the junction will result in drift and erratic readings.

Refillable

- The HI1048S is a refillable probe.
- Since it is a double junction pH electrode, the fill solution is the HI7082 3.5M KCl.
- This solution does not contain any silver as with single junction electrode fill solutions.

Glass Electrode Body

- The glass body is ideal for laboratory use. The glass is resistant to many harsh chemicals and is easily cleaned.
- The glass body also allow for a fast transfer of heat to the internal reference electrolyte.
- The mV generated by the reference cell is temperature dependent.
- The faster the equilibrium the steadier the reference potential.

Screw Connector

- The HI1048S has a screw connector.
- Screw connectors attach directly to the meter and can also be made interchangeable with other meters by using a Hanna BNC extension cables.

SPECIFICATIONS

Body Material	:	glass
Reference	:	double, Ag/AgCl
Junction / Flow Rate	:	open, CPS technology
Electrolyte	:	3.5M KCl
Range	:	pH: 0 to 12
Max Pressure	:	0.1 bar
Tip Shape	:	dome (dia: 8 mm)
Diameter	:	12 mm

Body Length / Overall Length	:	120 mm / 175.5 mm
Temperature	:	0 to 80°C (32 to 176°F) – GP
Temperature Sensor	:	no
Matching Pin	:	no
Amplifier	:	no
Digital	:	no
Cable	:	coaxial; 1 m (3.3')
Connection	:	Screw cap
Applications	:	juice, must, wine