

# Industrial pH electrode(SKU:FIT0348)

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## Introduction

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- This pH combination electrode is made of sensitive glass membrane with low impedance. It can be used in a variety of PH measurements with fast response, good thermal stability. It has the good reproducibility, difficult to hydrolysis, and basically eliminate the alkali error. In 0 to 14pH range, the output voltage of the electrode is linear. The reference system which consists of the Ag/AgCl gel electrolyte salt bridge has a stable half-cell potential and excellent anti-pollution performance. The ring PTFE membrane is not easy to be clogged, so the electrode is suitable for long-term online detection.

- This product is only a part. Its usage is same with the **pH meter (SKU:SEN0161)** , and the Industrial one is suitable for long-term monitoring.

## Applications

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The electrode is suitable for all kinds of printing, circuit board factory, wastewater containing chromium and other industrial and domestic sewage pH monitoring.

## Specification

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- Length (with protective cover): 17.7cm
- Diameter: 2.74cm
- Wire Length: 5m
- Connector: BNC
- Measuring Range: 0-14pH
- Measuring Precision:  $\leq 0.02\text{pH}$
- Suitable Temperature: 0-60°C
- Response Time: 10sec
- Drift:  $\leq 0.02\text{PH}/24\text{hours}$
- Resistance of Sensitive Membrane:  $\leq 200 \times 10^6 \Omega$
- Slope:  $\geq 95\%$
- Electrode's Equipotential Point:  $7 \pm 0.5\text{PH}$

## pH Electrode Characteristics

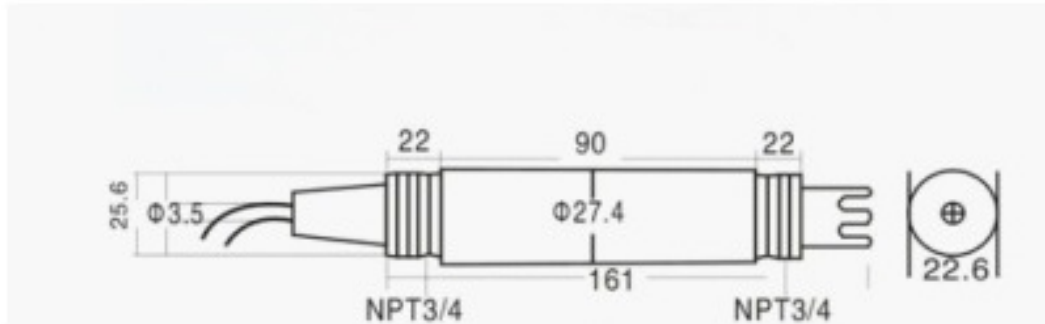
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The output of the pH electrode is Millivolts, and the relationship between pH value and output voltage is shown as follows (25 °C):

VOLTAGE (mV)	pH value	VOLTAGE (mV)	pH value
414.12	0.00	-414.12	14.00
354.96	1.00	-354.96	13.00
295.80	2.00	-295.80	12.00
236.64	3.00	-236.64	11.00
177.48	4.00	-177.48	10.00
118.32	5.00	-118.32	9.00
59.16	6.00	-59.16	8.00
0.00	7.00	0.00	7.00

## Dimensional Drawing

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## Use and Maintenance

- Electrode must be known before the measurement standard buffer solution PH value calibrated to improve the measurement accuracy , PH value of the buffer to be reliable, and the closer the measured value , the better , generally no more than three PH.
- Sensitive glass bubble ball electrode tip is not in contact with a hard object , any breakage and hair will rub the electrode failure.
- Electrode receptacle must be kept clean and dry height , if tarnished available medical cotton and ethanol to wipe and dry , definitely prevent the output ends of a short circuit , otherwise it will lead to inaccurate measurements or failure.
- Measurements should be taken before the bubble inside the glass bulb rejection to , otherwise it will cause measurement errors , measurement, should stir the electrode in the test solution still placed to accelerate response.
- Both before and after measurements and clean the electrode with deionized water to ensure measurement accuracy , the viscosity was measured in a sample , the electrodes need to use deionized water to remove the solvent.
- Passivated electrode will produce long-term use , the phenomenon is sensitive to low gradient , slow response , inaccurate readings , then you can lower end of the electrode bulb with 0.1M solution soak for 24 hours ( preparation 0.1M dilute hydrochloric acid : 9ml hydrochloride diluted with distilled water to 1000ml), then use 3Mkcl solution soak for

several hours to restore performance.

- Glass bulb liquid surface contamination or blockage  
 , but also make the electrode passivation , at this  
 time , should be based on the nature of the  
 pollutant , the appropriate cleaning solution.
- Electrode cycle is about a year, after aging should  
 be promptly replaced with new electrodes.