

BONT[®]

Bont Technologies GmbH

Industrial Online pH Meter BT100



Introduction

pH meter is precision meter for measurement of pH value of solution. With complete functions, stable performance, simple operation and other advantages, they are optimal instruments for industrial measurement and control of pH value. Various pH electrodes can be used in industrial online pH meter.

Features:

- LCD display, high-performance CPU chip, high-precision AD conversion technology and SMT chip technology, multi-parameter, temperature compensation, high precision and repeatability US TI chip; 96 x 96 world-class shell; world-famous brands for 90% parts
- The current output and alarm relay adopt optoelectronic isolating technology, strong interference immunity and the capacity of long-distance transmission.
- Isolated alarming signal output, discretionary setting of upper and lower thresholds for alarming and lagged cancellation of alarming.
- High-performance operational amplifier, low temperature drift, high stability and accuracy.

Technical Indexes

1. Measuring range	0 ~ 14.00pH, Resolution : 0.01pH
2. Precision	0.05pH, $\pm 0.3^{\circ}\text{C}$
3. Stability	$\leq 0.05\text{pH}/24\text{h}$
4. Automatic temperature compensation	0~10°C (pH)
5. Manual temperature compensation	0~80°C (pH)
6. Output signal	4-20mA isolated protection output, dual current output
7. Communication Interface	RS485 (selection)
8. Output control mode	ON/OFF relay output contacts
9. Relay Load	Maximum 240V 5A; Minimum 115V 10A
10. Relay Delay	Adjustable
11. Current Output Load	Max.750Ω
12. Insulation resistance	$\geq 20\text{M}$
13. Working Voltage	220V \pm 22V, 50Hz \pm 0.5Hz
14. Overall dimension	96(L) x 96(W) x 110(D) mm
15. Dimension of the hole	92 x 92mm
16. Weight	0.6kg
17. Working Condition	Ambient temperature : 0-60°C; Air relative humidity : $\leq 90\%$
18. Certification	16030374 0001

Except for the earth magnetic field, there is no interference of other strong magnetic field around.

Ordering Guide

1. To inform whether the electrode provided is dual or ternary complex.
2. To inform the length of the electrode cable (default as 5m).
3. To inform the installation type of the electrode : flow-through, immersed, flanged or pipe-based

Standard Configuration

One secondary meter, the mounting sheath of immersed (selection), one pH electrode, three packs of standard buffer solution (for pH4.00, 6.86 and 9.18 respectively).

Basic Principle of pH Electrode

In pH measurement, the used electrode is also known as the primary battery. The primary battery is a system, whose role is to transfer chemical energy into electrical energy. The voltage of the battery is called the electromotive force (EMF). This electromotive force (EMF) is composed of two half-batteries. One half-battery is called the measuring electrode, and its potential is related to the specific ion activity; the other half-battery is the reference battery, often called the reference electrode, which is generally interlinked with the measurement solution, and connected to the measuring instrument.

Technical Indexes

Model No.	BT100
Measuring Range	0-14pH
Compressive Strength	0.6MPa
Slope	≥96%
Zero point potential	$E_o = 7PH \pm 0.3$
Internal Impedance	150-250 MΩ (25°C)
Profile	3-in-1 Electrode (Integrating the temperature compensation and the solution grounding)
Installation Size	Upper and Lower 3/4NPT pipe thread
Connection	Low-noise cable goes out directly
Application	Application to various industrial sewage, environmental protection and water treatment

Distributor: