

WATER QUALITY MONITORING / DATA SHEET

SS307-03

Integrated pH Transmitter

An integrated pH transmitter for continuous measurement of acidity in water and weakly corrosive process liquids. Automatic or manual temperature compensation, IP68 protection and configurable RS485 Modbus-RTU communication simplify installation and online monitoring.

Overview

- 0-14.00 pH measurement range with 0.01 pH resolution.
- Temperature measurement from 0-60 °C with 0.1 °C resolution.
- Automatic and manual temperature compensation can be selected for the process.
- RS485 Modbus-RTU interface with configurable address and baud rate.



Measured pH	Range 0-14.00 pH	Resolution 0.01 pH	Supply DC 7-30 V
Key Functions • Integrated one-piece design with simple installation and IP68 waterproof protection. • Automatic or manual temperature compensation for stable pH measurement. • Modbus-RTU communication with configurable address and baud rate. • Wide DC 7-30 V supply and 0.6 MPa pressure resistance.		Applications • Industrial wastewater and process-water monitoring. • Municipal and domestic wastewater monitoring. • Agricultural and aquaculture water-quality control. • Weak-acid and weak-alkali aqueous environments.	

SYSTEM DATA

Technical Specifications

Item	Specification
Supply Voltage	DC 7-30 V
Power Consumption	0.3 W
pH Measurement Range	0-14.00 pH
pH Resolution	0.01 pH
pH Measurement Error	±0.15 pH
Repeatability Error	±0.02 pH
Temperature Range / Resolution	0-60 °C / 0.1 °C; manual compensation default 25 °C
Temperature Measurement Error	±0.5 °C
Element Operating Temperature	0-80 °C
Protection / Pressure	IP68; 0.6 MPa
Cable Length	5 m standard; other lengths customizable
Electrode Service Period	Approximately 6-12 months

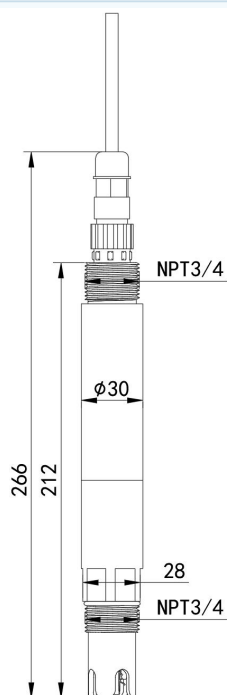
INTERFACES

Output and Communication Options

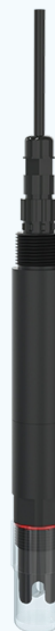
Option	Power	Description
RS485	0.3 W	Modbus-RTU; 8 data bits, no parity, 1 stop bit, CRC; 4800 bit/s default; 1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 configurable

HARDWARE

Transmitter and Electrode Dimensions



Integrated pH probe dimensions | 266 mm overall | Ø30 mm | NPT 3/4



Integrated pH probe | 266 mm overall | Ø30 mm | NPT 3/4

INSTALLATION

Submerged and Pipe Installation



Integrated probe assembly

Installation Requirements

- Submerged installation: connect the upper NPT 3/4 thread to a compatible waterproof tube and keep the cable outlet dry.
- Pipe installation: connect the NPT 3/4 thread to a compatible process port and keep the sensing end exposed to the sample.
- Immerse the sensing end fully in the sample and avoid contact with the tank wall or other metal parts.
- Keep the probe clean; rinse with water after use and avoid scratching the glass bulb.

SELECTION

Product Configuration

Item	Available configuration
Product code	SS307-03 integrated pH transmitter
Communication	N01 RS485 / Modbus-RTU

Item	Available configuration
Integrated electrode	201T standard composite; 202T flat desulfurization; 204T electroplating; 206T antimony
Installation	Submerged or pipe installation through NPT 3/4 threads
Cable length	5 m standard; other lengths customizable

Service note: calibrate with suitable pH buffer solutions (for example 4.01 and 9.18) when response drifts; the electrode service period is approximately 6-12 months in normal use.

CONTACT / SUPPORT

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