

PH WIFI TRANSMITTER / DATA SHEET

SS307-02-WIFI

Industrial pH Wi-Fi Transmitter

A compact Wi-Fi pH transmitter for water-quality monitoring, automatic or manual temperature compensation and reliable wireless data upload through an existing network.

Overview

- SS307-02-WIFI combines a pH/temperature acquisition circuit with 802.11b/g/n Wi-Fi communication.
- It uses an existing Wi-Fi network for local or cross-gateway data transmission and supports DNS and customer-server integration.
- It is suited to industrial wastewater, domestic wastewater, agriculture, aquaculture and other weakly acidic or weakly alkaline liquids.



pH Range 0–14.00 pH	Wireless 802.11b/g/n	Supply DC 10–30 V	Temperature 0–80 °C
Key Advantages • 802.11b/g/n Wi-Fi using an existing LAN or WAN network. • Automatic or manual temperature compensation. • Wide-voltage DC 10–30 V input. • Configurable server address, port, IP parameters, DNS and upload interval.		Application Scenarios • Industrial and domestic wastewater. • Agriculture and aquaculture water. • Remote environmental and process-water monitoring. • Weakly acidic or weakly alkaline, non-corrosive liquids. • Sites with an available Wi-Fi network.	

MEASUREMENT & CONNECTIVITY

Measurement and Wi-Fi Data Path

END-TO-END DATA FLOW

The selected pH electrode and optional temperature element connect to the transmitter. The transmitter samples the signal, applies the selected temperature-compensation mode and sends the measured values through the 802.11b/g/n network to a local platform, cloud platform or customer server.

Function	Default / available setting
Acquisition interval	2 s
Upload interval	10 s default; configurable from 1 to 65535 s
Wi-Fi standard	802.11b/g/n
Security	WEP, WPA-PSK or WPA2-PSK; WEP/TKIP/AES encryption
Network topology	Local-network communication and cross-gateway wide-area transmission
IP and DNS	Static IP, subnet mask and gateway configurable; dynamic DNS supported
Server destination	Target URL and listener port configurable; common default ports 2404 or 8020
Device scan name	WIFIOPEN plus the device address code
Configuration	Bluetooth configuration app; default operation password 12345678

MEASUREMENT PRINCIPLE

pH and Temperature Measurement

ELECTROCHEMICAL MEASUREMENT

The pH electrode produces a potential related to hydrogen-ion activity. The transmitter converts this signal to a pH value and can use the installed temperature element for automatic compensation. In manual mode, the configured temperature is used; the default manual value is 25 °C.

SYSTEM DATA

Technical Specifications

Item	Specification
Model	SS307-02-WIFI
Power Supply	DC 10–30 V wide-voltage input
Power Consumption	0.8 W typical
pH Measurement Range / Resolution	0–14.00 pH / 0.01 pH
pH Measurement Error / Repeatability	±0.15 pH / ±0.02 pH
Temperature Range	0–80 °C; flat desulfurization electrode: 0–60 °C
Temperature Resolution / Error	0.1 °C / ±0.5 °C
Temperature Compensation	Automatic or manual; manual default 25 °C
Transmitter Environment	–40–60 °C; 0–95% RH, non-condensing
Electrode Pressure	0.6 MPa
Electrode Cable / Life	5 m default; 10/15/20 m customizable; approximately 1 year
Communication	Wi-Fi 802.11b/g/n; WEP/WPA-PSK/WPA2-PSK; WEP/TKIP/AES
Measurement Timing	Acquisition 2 s; upload 10 s default, 1–65535 s configurable
Network Configuration	Static IP parameters, DNS and server URL/port configurable
Enclosure	Wall-mount enclosure; maximum 117 × 87 × 43 mm

PRODUCT SELECTION

Configuration Options

Option	Description
SS307-02-WIFI	Industrial pH transmitter with Wi-Fi data upload
Electrode	Composite, flat desulfurization, PTFE, plating/double salt bridge, glass or antimony
Temperature	With or without temperature compensation, according to the selected electrode
Network	802.11b/g/n; security and IP parameters configurable
Server	Local platform, cloud platform or customer server; URL and port configurable
Mounting	Wall, submerged or pipeline installation

SELECTION NOTE

Choose the electrode material, temperature option, Wi-Fi security/network plan, server destination and display option together. The standard package includes the transmitter, selected electrode, 12 V adapter, mounting hardware, pH buffer sachets and warranty materials.

INSTALLATION & OPERATION

Installation, Wiring and Operation

Connection	Function / guidance
PH–	pH electrode negative; connect the black electrode wire
PH+	pH electrode positive; connect the transparent electrode wire
PT– / PT+	Temperature element; two temperature wires may be connected in either order when fitted
Power	Use a DC 10–30 V supply or the supplied adapter within its rated range

Connection	Function / guidance
Wi-Fi network	Connect to the configured 802.11b/g/n network; set IP, gateway, DNS and server parameters
Connector protection	Lock the connector before operation; keep the cable gland and Wi-Fi connection dry

- Mount the transmitter in the selected position; keep the enclosure, cable gland and wireless connection above standing water.
- After power-on, allow about 1–3 minutes for initialization, then check the local receiver or platform data.
- Use the Bluetooth configuration app to scan WIFIOPEN plus the address, enter password 12345678 and set the network, server URL/port and upload interval.
- Confirm Wi-Fi coverage and security settings before installation. For a customer server, configure the destination URL or IP address and listener port.
- Rinse the electrode with pure water, store it in soaking solution and calibrate before use or at least every 3 months.
- Avoid liquids outside the selected electrode's compatibility range; protect the sensing element from impact and scratching.

PLATFORM SUPPORT

The Wi-Fi transmitter can feed a local monitoring platform, an environmental cloud platform or a customer server. Typical platform functions include real-time WEB monitoring, upper and lower limit alarms, history export, permission management, data storage and software updates.

SERVICE & WARRANTY

The transmitter is covered by a 24-month warranty under normal use and includes lifetime service support. The pH electrode is a consumable component; its service life is typically about one year and it is not covered by the transmitter warranty.

MECHANICAL DATA

Transmitter Enclosure and Electrode Dimensions

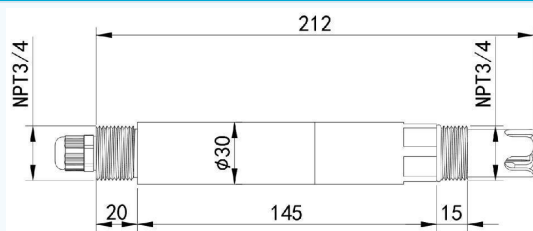


Wall-mount enclosure: maximum 117 × 87 × 43 mm

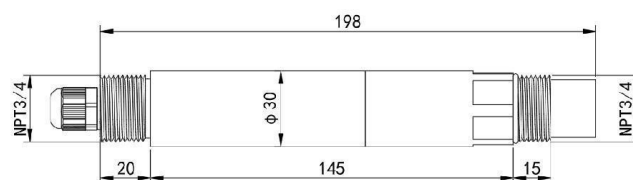
Mechanical notes

- Use the supplied expansion plugs and screws for wall mounting where suitable.
- NPT3/4 connection for most industrial electrode variants.
- PG13.5 connection for the glass variant.
- Keep cable connectors, the cable gland and the Wi-Fi connection dry and locked.
- For submerged or pipeline installation, position the sensing end in the representative flow and avoid bubbles.

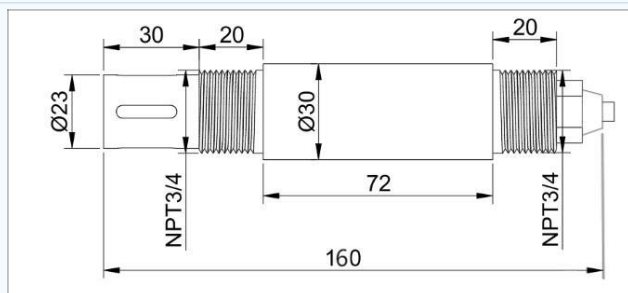
Representative electrode dimensions are shown below in millimetres. The final selected electrode determines the applicable drawing.



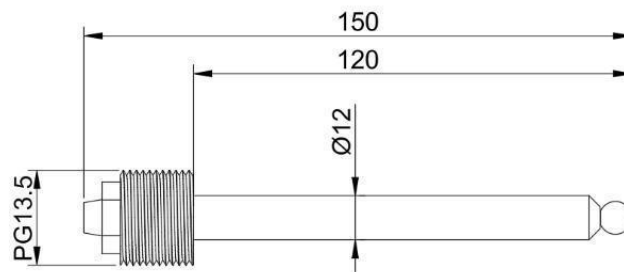
Composite, plating or antimony variants: 212 mm; Ø30; NPT3/4



Flat desulfurization variant: 198 mm; Ø30; NPT3/4



PTFE variant: 160 mm; Ø30; NPT3/4



Glass variant: 150 mm; Ø12; PG13.5

CONTACT / SUPPORT

SpeSense Technologies Inc.

Add: No. 9 Yuhe Road, Guitang Subdistrict, Yuhua District, Changsha City

Tel: +86-15386478166

Email: info@spesense.com

Web: www.spesense.com



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