

GoSense π -Stat ID™ Mobile pH/ISE Sensor Node

PRELIMINARY

FEATURES

- Designed for Potentiometric Sensors
- pH or Ion Selective Electrode Input
- Contactless Data Transfer to Mobile Device
- Communicates by NFC to Smartphone
- ISO 15693 RFID Compliant Air Interface
- Integral Temperature Sensor
- Guard Electrode Input for Zero-Drift
- Micro-Power CMOS Potentiostat with Zero-Drift Instrumentation Amplifier
- Programmable Data Logger with Out-of-Limits Function
- 10-bit ADC and 8 kb EEPROM Memory
- Credit Card Size

TYPICAL APPLICATIONS

- pH Measurement & Logging
- Mobile & Wearable Sensor Applications
- Intelligent Packaging Solutions
- Smart Medical Diagnostics
- Field Based Measurements
- Short-Range Contactless Sensing
- Auto-ID Applications
- Wireless Sensor Networks
- Transport Logistics and Quality Control
- Food Biotechnology
- Environmental Monitoring
- Internet of Things (IoT) Applications

DESCRIPTION

The GoSense π -StatID™ is a wireless sensor node for use with potentiometric sensors and contains a built-in data logger. The π -StatID™ communicates with RFID readers and NFC-v enabled mobile devices such as Smartphones and tablets.

The integrated potentiostat in the GoSense π -StatID™ provides all necessary conditioning for an externally connected potentiometric sensor. The zero-drift input stage is especially designed for use with high impedance electrodes, such as glass pH electrodes and ion selective electrodes.

The GoSense π -StatID™ provides a complete electrochemical instrument, data logger and seamless mobile interface that enables the simple connection of potentiometric sensors to the web.

The GoSense π -StatID™ has a read range of up to 2.5 cm with NFC-v Smartphones or up to 1.5 m with ISO15693 RFID card readers.



SPECIFICATION SUMMARY

Measurement range: ± 300 mV bipolar or 600 mV unipolar (equivalent to 10 decades, or 10 pH units)

Input impedance: typically 100 G Ω || 3 pF

Data Logger:
real-time clock (RTC)
non-volatile memory for 750 samples
programmable out-of-limits function

Operating temperature: - 20 to + 60 °C

Temperature sensor accuracy: ± 0.5 °C

Potentiostat: potentiometric input, single channel

Air interface:
RFID ISO15693 and cool-Log™ compliant
NFC-v compatible

Power Supply
Derived from NFC/RFID reader or internal battery

Battery: 3V lithium coin cell (CR1216 or CR2032)

Size: 80 x 50 x 10 mm

Weight: ≈ 10 g

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