



D-2 Incorporated

Stick Handheld Fuel Conductivity Product Brochure

> Part Number: JF-1A-ST Revision Date: 26-JAN-22 Drawing Number: 448-000



Handheld Stick Conductivity Meters provide extremely accurate and easy to use results for field measurement applications.

Advantages of the Stick Handheld Sensors

- 1. Very easy to use, one button design stick handheld for field conductivity and temperature measurement.
- 2. Most durable and ergonomic design in the industry. Perfect for use in harsh environments.
- 3. ASTM D2624 equivalent by ASTM D6708.
- D-2 Highest Available Accuracy due to AC Measurement Technology.
- 5. Provides digital reading of conductivity, temperature, date and time of sample.
- AC Measurement technology allows for measurement of conductivity in any sample container, no need to relax fuel.
- Large one button design allows for easy operation and use with gloves on, even winter gloves.
- 8. Long Life Batteries, that can be bought locally and replaced easily. Allows you to carry extra batteries same size as AAAs into the field.
- 9. Custom ranges available consult factory.

- 10. Same Technology as our Industry Leading precision JF-1A-HH handhelds that are listed in ASTM D2624 with the best precision in the field backed up by the research report in the ASTM Method.
- 11. Support from D-2 Inc, including a oneyear limited warranty on the equipment. As long as you are using the handheld, we are here to provide support and offer expertise on the readings you are getting in the field.
- 12. IRD Data link for calibration and verification, no Need to open the unit.
- 13. Extended Operation Temperature Range allowing a wide range of user measurement locations, from col -20° C to 55°C.
- 14. Calibrated in D-2's ISO 17025 Certified Calibration Facility
- 15. Full validation calibration simulator available from the factory. USB Driven, full verification over 5 points.



Conductivity Sensors use our Patented AC Measurement technology rather than DC Measurement technology, here is why:

The D-2 Stick conductivity AC measurement sensor (JF-1A-ST) offers improved accuracy and easier operator use. AC measurement is more accurate than the competition due to the elimination of DC measurement errors. A DC sensor never reaches measurement equilibrium, hence, the need to estimate an answer based on a time interval of measure. The application of a DC voltage forms a battery between the two electrodes of the sensor, at first a large 'in-rush current occurs, the current then slows as polarization voltage builds on the two measurement electrodes, in the end zero current flows as the charges on the electrodes has formed an infinite impedance. So, a DC sensor must guess when the current flow is representative of the fluid ability to conduct, any, flow or changes in temperature dramatically effect this time dependent measure. In out AC (Patented) measure the voltage is continuously varying from one electrode to the other, no polarization occurs and the measure is flow insensitive, as we can make many measures over any number of cycles, we can obtain very high precision.

The Stick conductivity the most accurate, easiest, and most durable design for taking conductivity and temperature of fuel in the field. Making the Stick Conductivity handheld ideal for any fuel kit applications across the fuel industry. The small diameter allows the sensor to measure directly in standard 1 liter fuel sampling containers, with no need for transfer, possible contaminating the measurement.

To see how a DC Meter compares to our AC Handheld, please see Graph from ASTM Research Report RR-D02-1680 Above.

Typical Specifications:

Accuracy: Listed in ASTM D2624 Temperature: -30°C to 55°C Storage Temperature -35°C to 60°C

Resolution: 0.1 pS/m and 0.1 °C Sensor Tip: 316 SS/PEEK/VITON

Patented AC Measurement Technology

Measurement Range: 0-2,000 pS/m

Operational: -30C to 55°C

Accuracy Temperature +/- 0.5°C

IRD Data IN/OUT

Stick Handheld Images



JF-1A-HH-ST has revolutionized the field of conductivity measurement applications.



Digital Output for PS/M Readings.

The stick handheld outputs the conductivity reading automatically on the internal naturally bright OLED screen, as shown in this image displaying the value, screen can be read from full darkness to bright sunlight.



Field Proven, Highly Durable Accurate Technology

The Stick Handheld uses the same technology as our field proven and tested JF-1A-HH handhelds that are also the most accurate technology in the field. We took that technology and made it even more durable and compact. No, we have this version, in an extremely durable stick design.



Stick Handheld Temperature Readings

The Handheld Stick has an extremely accurate fully

digital temperature sensor built in. Conductivity is a function of temperature and therefore accurate temp is important to determine the conductivity of the fuel. The sensor is fully conductivity over the industry widest operational range, ideal for harsh environment measures.



D-2 Incorporated Direct Customer Support

Fully Supports all of our equipment with direct technical support. We are an ISO 9001 Quality Certified Manufacturer. All of our equipment and services are covered by our one-year limited warranty.

Stick Handheld Conductivity Sensor

JF-1A-ST

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