

ARP INSTRUMENTS, INC.

Soluble Salt Meter Model RPCT-07-001 *Unlimited Test Model*

The SSM is a patented design that provides a hand held, automated method for detection of soluble salts on surfaces. The SSM combines surface salt extraction and conductivity measurement in one tool, allowing convenient and ergonomic operation. The hand held design provides a self-contained, easily transportable, unit for soluble salt measurements. The SSM and supplied fluid dispenser allows for quick and accurate injection of deionized water, automatic extraction of surface salts, and conductivity measurement. The SSM is complete with a backlit LCD display and easy to follow on screen instructions. All readings are stored in the internal memory. This data can be downloaded to any PC and exported in Microsoft® Excel file format for use using the supplied software. Up to a 1000 measurements can be downloaded into any Coatings Technical.

The Soluble Salt Meter kit is supplied in a carry case and includes:



Soluble Salt Meter RPCT-07-001 for flat surfaces.
3ml fixed volume fluid dispenser
500 ml Container for deionized water
Flexible plastic tubing to interconnect SSM and dispenser
Universal AC adapter to charge the Li-ion battery of the SSM
CD with SSM link software and manual USB connection cable
250 ml of 84 $\mu\text{S}/\text{cm}$ validation fluid
Syringe to inject validation fluid into the SSM



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The SSM performs a measurement cycle in five easy steps:

- 1) Attach SSM to surface
- 2) Inject deionized water into SSM with one press of the dose bottle
- 3) Press "Start": SSM automatically agitates solution, takes a measurement, displays the result on the LCD screen and stores the data in memory.
- 4) Remove SSM and wipe remaining water from surface
- 5) Clean meter by flushing with deionized water

The Soluble Salt Meter (SSM) was developed specifically to replace the Bresle Patch and IMO test protocols. The SSM exactly duplicates the Bresle Patch process but with a higher accuracy and reproducibility. Measurements are automated and there are no consumables. The complete test sequence requires less than a minute. In comparison to the Bresle Patch the SSM: reduces sampling and inspection times per sample. Extracts surface salts more reliably for more accurate readings minimizes operator error through automatic metered water injection and electronic recording of measurements improves safety by eliminating the need for syringe with needles. The SSM does not leave a sticky residue on the substrate as with the Bresle Patch. The SSM is paperless and interfaces via USB with a PC or laptop computer.

Specifications

The SSM meets equivalent standards of ISO Standard 8502-9 for the field conductometric determination of water-soluble salts; The Bresle Method. The meter also meets the requirements of NACE SP0508-2008.

Measurement Area 1250 mm (circular) fixed footprint

Attachment Method Magnetic with silicone seal (no effect on surface quality; proven to seal over deep pits)

Water Injection Method Automated, with simple press of fixed volume dispenser

Dose 3 ± 0.05 ml

Measurement Process Steps

Measurement Range 0-100 μ S/cm

Resolution 1 μ S/cm

Measurement Accuracy ± 3 μ S/cm

Surface Temperature Range 5 - 50 °C (41 - 122 °F)

Temperature probe accuracy ± 0.3 °C (± 0.54 °F)

Readout

Memory Holds up to 1000 measurements

(10 batches of up to 100 measurements each)

Connectivity via USB with PC or laptop

Power Supply Lithium-ion rechargeable battery.

Supplied with 50-preprogrammed tests



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