Salt-in Crude Analyser
ASTM D3230; IP 265

Standard Test for Salts in Crude Oil – Electrometric method
Key Features

- Salt concentration values displayed automatically
- No need for mixing of salt standards
- Pre calibrated for immediate use for ASTM D3230
- User calibration modes allow verification using user standards
- Typical test time of less than 30 seconds
- Moisture proof membrane touch screen with large keys
- Fully portable, all items contained in aluminium carry case
- Supplied with beaker and sensor support stands
- Interchangeable plug-in sensor
- Battery or mains power supply

The presence of salts (chlorides) in crude oil provides a serious problem to drilling, pumping and refining processes. It is also of concern during transport. Excessive salt levels may cause corrosion problems and clogging of pipelines, refining and catalytic processes.

Salt content of crude oil is variable and can be affected by production practices and from handling during distribution, accurate determination of the salt content of crude oil provides data that assists with desalting operations.

ASTM D3230, IP 265 and equivalent test methods require the calibration of a suitable electrometric salt meter using standards of known conductivity against which measurement of the sample can be taken.

Principles of Operation

The Seta Salt-in-Crude Analyser (99700-5) is a robust and portable instrument for determining the chloride (salt) content of crude oils in full conformity to ASTM D3230, IP 265 and equivalent test methods.

The Seta Salt-in-Crude Analyser is pre-calibrated and automatically displays salt concentration measurements in g/m3 or lbs/1000bbl (pounds per thousand barrels), this avoids the need to mix salt calibration standards and makes testing a simple and fast procedure.

The Seta Salt-in-Crude Analyser has 3 test modes:

- **ASTM/PRECAL** - pre-calibrated for use in conformity to ASTM D3230
- **ASTM USER** - allows user calibration of ASTM values (ie: display values can be verified and/or recalibrated by the user against salt solutions of known conductivity)
- **IP USER** - allows user calibration according to IP 265 values

Measurements can be displayed or exported to pc or to a LIMS network. The instrument is suitable for bench top or hand-held operation and operates from battery or mains voltage.

The Salt-in-Crude Analyser is housed in a robust ABS case with moisture proof membrane switch panel, service is limited to changing the battery. An interchangeable spare sensor is available.

Applications for the Salt-in-Crude Analyser

- Refineries
- Pipelines
- Terminals
- Laboratories
- Inspection Companies
- Oil platforms
SaltCheck Verification Tool (99703-0)

A set of 3 ‘SaltCheck’ verification modules is supplied in a convenient storage case. The modules are calibrated to show equivalent salt values of:
- 0 g/m³
- 30 g/m³
- 190 g/m³

Instrument verification is easy - simply switch the instrument on and place the sensor into each ‘SaltCheck’ module to confirm that the correct reading is being displayed. Saltcheck is supplied with a certificate of verification.

Ordering Information

- 99700-5 Salt in Crude Analyser
- 99703-0 SaltCheck’ verification tool
- 99700-502 Probe & Sensor
- 99700-403 Power supply
- 99700-404 Stands (pair for beaker and sensor assembly)
- 99700-301 Beaker (pack 10)
- 99701-0 Instrument bench stand

Technical Specification for Analyser 99700-5

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Product No.</td>
<td>99700-5</td>
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<tr>
<td>Conductivity Range</td>
<td>0.0 to 151 lbs/1000bbbl (Res: 0.1 lbs/1000bbbl)</td>
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<tr>
<td></td>
<td>0.0 to 430.0 g/m³ (Res: 0.1 g/m³)</td>
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<tr>
<td>Temperature Range</td>
<td>-20º to 150ºC (res: 0.1ºC)</td>
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<tr>
<td>Weight</td>
<td>1.6kg</td>
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<tr>
<td>Power</td>
<td>9 volt dc battery or mains adaptor (110/120/220/240V, 50/60Hz adaptor supplied)</td>
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<tr>
<td>Size (HxWxD)</td>
<td>20 x 7 x 3.5cm</td>
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SUPPLIED WITH: mains voltage transformer, beaker & sensor support stands, carry case, mains adaptor, software, RS232 cable & instruction manual