WAVELET SALTWATER DISPOSAL WELL (SWD) KIT

SUMMARY

Underground injection into saltwater disposal wells (SWDs) is the preferred methodology for the management of flow-back and produced water. Remote monitoring provides SWD operators with valuable data that can be used to increase efficiency, reduce operating costs, and improve profitability.

The Saltwater Disposal Well Kit offers comprehensive solutions for the remote monitoring of virtually all SWD surface equipment and processes. A flow meter input and current transformer enable operators to assess pump operations and gain insights about volumes unloaded per truckload. Level sensors support tank storage and injection management. Water quality sensors provide data on parameters such as pH, conductivity, and total suspended solids (TSS) for water fingerprinting.

FEATURES

- Seamless Data Generation
- Modular Applications
- Third-Party Software Integration
- Secure Bidirectional Communication

APPLICATIONS

- Reduce Unplanned Downtime
- Water Fingerprinting & Volumetrics
- Facility Management & Automation
- Ticket Audits & Automated Invoicing

SENSOR SPECIFICATIONS

A. Conductivity Sensor

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>0 – 2,000,000 μS/cm</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10°C to 200°C (14°F to 392°F)</td>
</tr>
</tbody>
</table>

B. pH Sensor

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>-2 to 14 pH</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>±0.01 pH</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-5°C to 70°C (23°F to 158°F)</td>
</tr>
</tbody>
</table>

C. TSS Sensor

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>0 – 2,000 mg/L (0 – 2,000 ppm)</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.05% of full span</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>0 – 10.3 bar (0 – 150 psi)</td>
</tr>
<tr>
<td>Process Temperature</td>
<td>-10°C to 110°C (15°F to 230°F)</td>
</tr>
</tbody>
</table>
D. AC Current Transformer (Primary 100A, Secondary 5A)

- **Input Current**: 0 – 100 Amp AC
- **Overload**: 160 Amp AC
- **Rated Frequency**: 50/60 Hz
- **Rated Voltage**: 0.66 kV
- **Accuracy**: ≤ 1.5% of span
- **Operating Temperature**: -15°C to 45°C
- **Temperature**: (5°F to 113°F)

E. Guided Wave Radar Level Sensor

- **Range**: 75 m (246 ft)
- **Rod Probe**: 2,000 mm L x 8 mm ø (78.7 in. L x 0.31 in. ø)
- **Process Fitting**: G¾ PN40
- **Process Temperature**: -40°C to 200°C (-40°F to 392°F)
- **Process Pressure**: -1 bar to 40 bar (-14.5 psi to 580 psi)
- **Accuracy**: ±2 mm (±0.08 in.)

**ACCESSORY SPECIFICATIONS**

D1. Three-Phase Power Analyzer (used with D.)

- **Power Supply**: 10-40 VDC or 18-28 VAC - 50/60Hz
- **Voltage Input**: Direct connection up to 500V RMS max. (40-70Hz)
- **Accuracy**: Voltage: ±0.5% RDG; Current ±0.5% RDG; Active & Reactive Power: ±0.5% RDG
- **Operating Temperature**: -10°C to 60°C (14°F to 140°F)


Wavelet Saltwater Disposal Well (SWD) Kit includes:
- Wavelet Device & Activator
- 4G (LTE), 3G, 2G Global SIM Card
- Internal Lithium Battery
- Installation Hardware
- External Power Connector
- WA00155 4-Port Serial Cable Splitter
- A. SE00033 Inductive Conductivity Sensor, 7 m (22-ft) Cable
- B. SE00049 General Purpose pH and Temperature Sensor, 10 m (33-ft) Cable
- C. SE00050 Total Suspended Solids Sensor, 30 cm (12 in.) Insertion Style, 1"x7/8" Pipe Fitting, 6 m (20-ft) Cable
- D. SE00094 AC Current Transformers (Primary 100A, Secondary 5A), Split Core 2.4 cm (0.9 in.) Window, 1 m (3-ft) Cable
- D1. WA00134 Three-Phase Power Analyzer
- E. SE00100-S Guided Wave Radar Level Sensor - Crude Oil, NGL, Water, and Chemicals, 75 m (246-ft) Range, Oil-Water Interface Detector, 15 m (50-ft) Cable