2210 Side Mounted Level Switch

2210 is a chambered horizontally oriented, float-operated level switch suitable for plant and OEM applications where open or closed contacts are required to signal the presence or absence of liquid at a discrete level. The float extension arm moves a magnet which actuates (de-actuates) an electromechanical switching element.

The 2210 may be used on a wider variety of applications and process conditions than any other single model of chambered level switch currently offered by SOR®. The flexibility in this design is critical to customers all over the world in a wide variety of industries.

The 2210 Horizontal Mechanical Level Switch is suitable for most point level applications.

- drip legs
- boilers
- de-aerators
- high pressure feed-water heaters
- storage vessels
- low pressure feed-water heaters

- Five-year warranty
- Low maintenance costs
- Compact chamber design
- NEMA 4X “Quick-Release” cover
- Withstands temperatures up to 750°F (399°C)
- Withstands pressures up to 1799 psig (124 bar)
- Socket weld and NPT process connections available
- ASME Section IX and AWS D2.1 qualified welding system
- Designed to ANSI/ASME B31.1 and B31.3 guidelines
- Stainless steel switching mechanisms
- All stainless steel wetted parts
- Quick worldwide delivery
- Only ASTM grade materials with certified mill test reports used
- CSA certified for Ordinary Locations in U.S. and Canada

**Safety Certified to IEC 61508 (SIL)**
SOR products are certified to IEC 61508 for non-redundant use in SIL1 and SIL2 Safety Instrumented Systems for most models. For more details or values applicable to a specific product, see the Safety Integrity Level Quick Guide (Form 1528).
# 2210 Side Mounted Level Switch Specifications

## Product Specifications

<table>
<thead>
<tr>
<th>Mounting</th>
<th>Differential (Dead Band)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>Horizontal mount only</td>
</tr>
<tr>
<td>Float Material</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Chamber Material</td>
<td>Stainless Steel or Carbon Steel</td>
</tr>
<tr>
<td>Maximum Process Pressure</td>
<td>at 100°F (38°C)</td>
</tr>
<tr>
<td>With S.S. Chamber</td>
<td>1799 psi (124 bar)</td>
</tr>
<tr>
<td>Process Temperature Range*</td>
<td>(-40 to 750°F)</td>
</tr>
<tr>
<td></td>
<td>(-40 to 399°C)</td>
</tr>
</tbody>
</table>

### Electrical
- Switch type: SPDT or DPDT snap switch
- Contact rating: (See page 3)
- Contact material: Silver Plated
- Housing material: Aluminum
- Conduit connection size: 1" NPT
- Minimum Specific Gravity: 0.60 SG
- Agency Listing: CSA Certified (US & Canada)
- Ordinary Locations: Certificate available
- Design Code: ANSI B31.1 or ANSI B31.3
- Weight: With Chamber 22 lbs. (10 kg)

* Dependent on switch selection

**Maximum Operating Pressure Ratings**

<table>
<thead>
<tr>
<th>Chamber Designation</th>
<th>Chamber Description</th>
<th>Pressure at Listed Temperature in psig (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>100°F (38°C)</td>
</tr>
<tr>
<td>A</td>
<td>S40 Carbon Steel (includes float)</td>
<td>1435 (99)</td>
</tr>
<tr>
<td>C</td>
<td>S40 Stainless Steel (includes float)</td>
<td>1799 (124)</td>
</tr>
</tbody>
</table>

** Maximum operating pressure is limited by the float or chamber, depending on the temperature.

For exact material description, see page 3.
**How to Order**

Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component
- Reference tables, charts and additional information are provided throughout the catalog to help you make your selections.

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**Notes:**
- “X” in model number indicates a special requirement.
- For other variations please consult factory.
The 2210 unit allows for a smaller chamber size making it more compact and economical than most traditional vertical chambers. Although the 2210 is more compact, it provides the rugged reliability customers have come to expect from SOR.

The design starts with a high pressure float counter-weighted with a magnet. The magnet is coupled with another magnet inside the housing which is attached to the switching mechanism. The key is that the two magnets are separated by a pressure retaining wall of non-magnetic material. The magnets interact with each other as the float goes up and down, providing a safe and reliable system you can depend on for the most critical of applications. The 2210 features a NEMA 4X, Quick-Release cover. Approximately 1¼ turns are needed to remove/replace the cover for service or maintenance.

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.