Maintenance

Maintenance should consist of inspection to see that the float is free to move and not coated with any substance, which would change its weight or volume significantly. If this occurs, the float should be cleaned. This is easily accomplished without disturbing the installation. In addition, the stem may be wiped down to remove any build-up.

The only repair possible in the field is replacement of either the float or stem. Dents or nicks on the float are usually of no consequence to operation.

Mantentimiento

El mantenimiento debe consistir en una inspección para verificar que el flotador tenga libertad de movimiento y que no esté cubierto de ninguna sustancia que podría cambiar significativamente su peso o volumen. Si esto ocurre, deberá limpiar el flotador. Esto se logra fácilmente sin afectar la instalación. Además, el vástago puede limpiarse hacia abajo para quitar cualquier acumulación.

La única reparación de campo posible es el reemplazo del flotador o del vástago. Las abolladuras o melladuras en el flotador normalmente no tienen consecuencias para su operación.

Cautions

1. The pressure, temperature and electrical limitations shown for the specified level switches must not be exceeded.
2. The pressures and temperatures must take into consideration possible surges in the temperature and pressure of the system.
3. The liquids used must be compatible with the materials of construction. Specifications of materials will be given upon request.
4. Life expectancy of the switch varies with applications. Contact the factory if life cycle testing is required.
5. Ambient temperature changes can affect switch set points, since specific gravities of liquids vary with temperature. Consult factory for assistance.
6. Level switches have been designed to be shock and vibration resistant. For maximum life, both shock and vibration should be minimized. Consult factory for assistance.
7. Excessive contaminants in fluid may inhibit float operation, and occasional wipe down may be necessary.
8. Level switches must not be field repaired.
9. Physical damage to product may render product unserviceable.
10. Installation in a vessel made from magnetic materials may affect operation.

Installation

Operation is stated in the tank dry position.

ANSI Switches:
*Note: LV21-1101, LV21-1201, LV20-2101, and LV20-2201 are not reversible. The LV21-1101 and the LV20-2101 are Normally Closed. The LV21-1201 and the LV20-2201 are Normally Open.

Vertical Switches:
NC Operation: Arrow mounted vertically pointed down. NO Operation: Arrow mounted vertically pointed up. Installation:
El funcionamiento se define en la posición de tanque seco.

Interrupters Verticales:

Precauciones

1. Los límites de presión, temperatura y electricidad mostrados para los interruptores de nivel especificados no deben ser excedidos.
2. Las presiones y temperaturas deben tomarse en consideración posibles fluctuaciones cuando se toman en la temperatura y la presión del sistema.
3. Los líquidos usados deben ser compatibles con los materiales de construcción. Las especificaciones de los materiales se brindarán a petición.
4. La vida útil del interruptor varía según la aplicación. Comuníquese con la fábrica si requiere pruebas cíclicas de la vida útil.
5. Los cambios en la temperatura ambiente pueden afectar los puntos fíos del interruptor, dado que el peso específico de los líquidos varía con la temperatura. Consulte con la fábrica si requiere asistencia.
6. Los interruptores de nivel han sido diseñados para ser resistentes a golpes y vibraciones. Para una máxima vida útil, se debe minimizar la cantidad de golpes y vibraciones. Consulte con la fábrica si requiere asistencia.
7. El exceso de contaminantes en el líquido puede impedir la operación del flotador, y puede ser necesario un servicio de mantenimiento.
8. Los interruptores de nivel no deben ser reparados en el lugar de la instalación.
10. La instalación en un recipiente hecho de materiales magnéticos puede afectar la operación.
### Liquid Level Switch Details by Part Number

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Materials (stem, float)</th>
<th>Max. Temp.</th>
<th>Mounting</th>
<th>Max. Pressure (PSIG)</th>
<th>Elec. Rating (Watts)</th>
<th>Approvals (see reverse for key)</th>
<th>Notes (see below for key)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV36-S201</td>
<td>316 SS</td>
<td>200˚C</td>
<td>1/4 NPT</td>
<td>30</td>
<td>100</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>LV21-1101</td>
<td>Polyprop.</td>
<td>105˚C</td>
<td>3/8-16 BH</td>
<td>50</td>
<td>15</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>LV21-1201</td>
<td>Polyprop.</td>
<td>105˚C</td>
<td>3/8-16 BH</td>
<td>50</td>
<td>15</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>LV20-2101</td>
<td>Teflon</td>
<td>150˚C</td>
<td>1/8 NPT</td>
<td>25</td>
<td>60</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LV20-2201</td>
<td>Teflon</td>
<td>150˚C</td>
<td>1/8 NPT</td>
<td>25</td>
<td>60</td>
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<tr>
<td>LH35-S201</td>
<td>316 SS</td>
<td>200˚C</td>
<td>1/2 x 1/2 NPT</td>
<td>300</td>
<td>30</td>
<td>2</td>
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<tr>
<td>LH25-1201</td>
<td>Polyprop.</td>
<td>105˚C</td>
<td>1/2 x 1/2 NPT</td>
<td>100</td>
<td>30</td>
<td>2</td>
<td>*</td>
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<tr>
<td>LH25-5201</td>
<td>Kynar</td>
<td>105˚C</td>
<td>1/2 x 1/2 NPT</td>
<td>100</td>
<td>30</td>
<td>2</td>
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<tr>
<td>LH29-1001</td>
<td>Valox 420 / PP 105˚C</td>
<td>X</td>
<td>50</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AV16-S243</td>
<td>316 SS</td>
<td>200˚C</td>
<td>X</td>
<td>200</td>
<td>60</td>
<td>1, 2</td>
<td></td>
</tr>
<tr>
<td>AV26-S243</td>
<td>316 SS</td>
<td>200˚C</td>
<td>X</td>
<td>200</td>
<td>60</td>
<td>1, 2</td>
<td></td>
</tr>
<tr>
<td>AV36-S243</td>
<td>316 SS</td>
<td>200˚C</td>
<td>X</td>
<td>200</td>
<td>60</td>
<td>1, 2</td>
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</tr>
<tr>
<td>AV46-S243</td>
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<tr>
<td>AV56-S243</td>
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<td>X</td>
<td>200</td>
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<td>1, 2</td>
<td></td>
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### Temperature Switches

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Materials (stem, float)</th>
<th>Mounting</th>
<th>Max Pressure (PSIG)</th>
<th>Electrical Rating (Watts)</th>
<th>Temp. Type</th>
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</thead>
<tbody>
<tr>
<td>LV36-S501</td>
<td>316 SS</td>
<td>1/4 NPT</td>
<td>200</td>
<td>60</td>
<td>RTD</td>
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<tr>
<td>LV20-1501</td>
<td>Polyprop.</td>
<td>1/8 NPT</td>
<td>100</td>
<td>30</td>
<td>RTD</td>
</tr>
</tbody>
</table>

### Notes:
* Also applies to models with slosh shields
1. The LV21-1101 and the LV20-2101 are Normally Closed.
   The LV21-1201 and the LV20-2201 are Normally Open.

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For full instructions, please download the full manual at www.flowline.com.
For complete product documentation, video training, and technical support, go to www.flowline.com.
For phone support, call 562-598-3015 from 8am to 5pm PST, Mon - Fri.
(Please make sure you have the Part and Serial number available.)

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Flowline warrants to the original purchaser of its products that such products will be free from defects in material and workmanship under normal use and service in accordance with instructions furnished by Flowline for a period, which is equal to the shorter of one year from the date of purchase of such products or two years from the date of manufacture of such products. Flowline’s obligation under this warranty is solely and exclusively limited to the repair or replacement, at Flowline’s option, of the products or components, which Flowline’s examination determines to its satisfaction to be defective in material or workmanship within the warranty period. Flowline must be notified pursuant to the instructions below of any claim under this warranty within thirty (30) days of any claimed lack of conformity of the product. Any product repaired or replaced under this warranty will be warranted only for the remainder of the original warranty period.

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