Model L6  
\textit{Flotec}® Float Switch

\textbf{Specifications - Installation and Operating Instructions}

\textbf{SPECIFICATIONS}

\textbf{Service:} Liquids compatible with wetted materials.

\textbf{Wetted Materials:}
- \textbf{Float:} Solid polypropylene or 304 SS.
- \textbf{Lower Body:} Brass or 303 SS.
- \textbf{Magnet:} Ceramic.

\textbf{External Float Chamber (Tee):}
Matches lower body choice of brass or 303 SS.

\textbf{Other:} Lever Arm, Spring, Pin, etc.: 301 SS.

\textbf{Temperature Limit:}
- -4 to 220°F (-20 to 105°C) Standard, MT high temperature option.

\textbf{Pressure Limits:} See next page.

\textbf{Enclosure Rating:} Weatherproof and Explosion-proof. Listed with UL and CSA for Class I, Groups A, B, C and D; Class II, Groups E, F, and G. (Group A on stainless steel body models only).

\textbf{Electrical Connections:} UL models: SPDT, DPDT switch options.

\textbf{Weight:}
- Without external float chamber, 1.75 lb (.8 kg) with external float chamber.

\textbf{Specific Gravity:} See next page.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline
\textbf{Example} & \textbf{L6} & \textbf{EP} & \textbf{B} & \textbf{S} & \textbf{3} & \textbf{B} & \textbf{MT} & \\
\hline
\textbf{Series} & \textbf{L6} & & & & & & & \\
\hline
\textbf{Construction} & \textbf{EP} & & & & & & & \\
\hline
\textbf{Upper Body Material} & \textbf{B} & \textbf{S} & & & & & & \\
\hline
\textbf{Lower Body Material} & \textbf{B} & \textbf{S} & & & & & & \\
\hline
\textbf{Circuit (Switch) Type} & \textbf{S} & \textbf{D} & & & & & & \\
\hline
\textbf{Line Size} & \textbf{3} & \textbf{4} & \textbf{5} & \textbf{6} & & & & \\
\hline
\textbf{Tee and Float Options} & \textbf{0} & \textbf{A} & \textbf{B} & \textbf{C} & \textbf{H} & \textbf{L} & \textbf{S} & \\
\hline
\textbf{Switch Options} & \textbf{MT} & \textbf{MV} & & & & & & \\
\hline
\textbf{Options} & \textbf{AT} & \textbf{CSA} & \textbf{I  } & \textbf{E  } & \textbf{KC} & \textbf{GL} & \textbf{C} & \textbf{T} & \\
\hline
\end{tabular}

\textbf{L6EPB-B-3-B-MT level switch; brass upper housing, brass lower housing, brass tee with polypropylene spherical float, SPDT snap switch, and high temperature option}

Attention: Units without the “AT” suffix are not Directive 94/9/EC (ATEX) compliant. These units are not intended for use in atmospheres in the EU.

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INSTALLATION
Unpack switch and remove any packing material found inside lower housing or float chamber.

Switch must be installed with body in a horizontal plane and arrow on side pointing down.

If switch has an external float chamber (tee), connect it to vertical sections of 1˝ NPT pipe installed outside vessel walls at appropriate levels. If unit has no external float chamber, it must be mounted in a 1˝ NPT half coupling welded to the vessel wall. The coupling must extend through the wall.

Inspect and clean wetted parts at regular intervals.

ELECTRICAL CONNECTIONS
Connect wire leads in accordance with local electrical codes and switch action required. N.O. contacts will close and N.C. contacts will open when liquid level causes float to rise. They will return to “normal” condition on decreasing liquid level.

Black = common, Blue = N.O. and Red = N.C.

For units supplied with both internal ground and external bonding terminals, the ground screw inside the housing must be used to ground the control. The external bonding screw is for supplementary bonding when allowed or required by local code. When external bonding conductor is required, conductor must be wrapped a minimum of 180° about the external bonding screw. See below. Some CSA listed models are furnished with a separate green ground wire. Such units must be equipped with a junction box, not supplied but available on special order.

EC-Type Certificate IECEx and KC Installation Instructions:
Cable Connection
The cable entry device shall be certified in type of explosion protection flameproof enclosure “d”, suitable for conditions of use and correctly installed. For Ta ≥ 65°C cable and cable gland rated ≥ 90°C shall be used.

Conduit Connection
An Ex d certified sealing device such as a conduit seal with setting compound shall be provided immediately to the entrance of the valve housing. For Ta ≥ 65°C wiring and setting compound, in the conduit seal, rated ≥ 90°C shall be used.

MAXIMUM PRESSURE CHART

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Float</th>
<th>Pressure Rating psig (kg/cm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L6EPB-B-S-3-A</td>
<td>Cylindrical SS</td>
<td>200 (13.8)</td>
</tr>
<tr>
<td>L6EPB-B-S-3-B</td>
<td>Polypropylene</td>
<td>250 (17.2)</td>
</tr>
<tr>
<td>L6EPB-B-S-3-C</td>
<td>Round SS</td>
<td>350 (24.1)</td>
</tr>
<tr>
<td>L6EPB-B-S-3-H</td>
<td>Round SS</td>
<td>250 (17.2)</td>
</tr>
<tr>
<td>L6EPB-B-S-3-O</td>
<td>Polypropylene</td>
<td>1000 (69)</td>
</tr>
<tr>
<td>L6EPB-S-S-3-A</td>
<td>Cylindrical SS</td>
<td>200 (13.8)</td>
</tr>
<tr>
<td>L6EPB-S-S-3-C</td>
<td>Round SS</td>
<td>350 (24.1)</td>
</tr>
<tr>
<td>L6EPB-S-S-3-L</td>
<td>Round SS</td>
<td>350 (24.1)</td>
</tr>
<tr>
<td>L6EPB-S-S-3-O</td>
<td>Polypropylene</td>
<td>2000 (138)</td>
</tr>
<tr>
<td>L6EPB-S-S-3-S</td>
<td>Polypropylene</td>
<td>2000 (138)</td>
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</table>

WETTED MATERIALS CHART

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<tr>
<th>Model</th>
<th>Brass</th>
<th>Bronze</th>
<th>Ceramic</th>
<th>Polypropylene</th>
<th>301SS</th>
<th>303SS</th>
<th>304SS</th>
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<tr>
<td>B-S-3-C</td>
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<td>B-S-3-H</td>
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<tr>
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</table>

Note: ATEX, IECEx and KC units only: The temperature class is determined by the maximum ambient and or process temperature. Units are intended to be used in ambient of -20°C ≤ Tamb ≤ 75°C. Units may be used in process temperatures up to 105°C providing the enclosure and switch body temperatures do not exceed 75°C. The standard Temperature Class is T6 Process Temp ≤ 75°C.

Refer to Certificate No: IECEx DEK 11.0039 for conditions of safe use for IECEx compliant units.

All wiring, conduit and enclosures must meet applicable codes for hazardous areas. Conduits and enclosures must be properly sealed. For outdoor or other locations where temperatures vary widely, precautions should be taken to prevent condensation inside switch or enclosure. Electrical components must be kept dry at all times.

CAUTION: To prevent ignition of hazardous atmospheres, disconnect the device from the supply circuit before opening. Keep assembly tightly closed when in use.

MAINTENANCE
Inspect and clean wetted parts at regular intervals. The cover should be in place at all times to protect, the internal components from dirt, dust and weather and to maintain hazardous location ratings. Disconnect device from the supply circuit before opening to prevent ignition of hazardous atmosphere. Repairs to be conducted by Dwyer Instruments, Inc. Units in need of repair should be returned to the factory prepaid.
Polypropylene Float

Round Stainless Steel Float

Cylindrical Stainless Steel Float

With External Chamber (Tee)

SPDT

DPDT

Terminal Connections CSA, ATEX Enclosures

CSA, ATEX Conduit Enclosure
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