OEM float switch
Miniature design, vertical installation
Model RLS-7000

Applications
- Limit level measurement in machine building
- Dry run monitoring in mobile working machines
- Monitoring of hydraulic power packs and chillers
- Overfill measurement in water technology
- Specifically developed for OEM customers
  (minimum lot size: 50 pieces)

Special features
- From customisation to design-in solution
- Low variance by local adjustment of the normally open/
  normally closed switching function via rotation of the float
- Various materials and up to $10^9$ switching cycles
  guarantee a long service life

Description
The model RLS-7000 is a small and economical float switch with a single switch point, designed specifically for the needs of OEM customers. With its compact dimensions, it is particularly suitable for monitoring dry running or the overfilling of small tanks. The miniature float switch from plastic combines solid performance with high mechanical robustness and an attractive price.

Tailored to your machines
To ensure that the model RLS-7000 float switch is perfectly matched to the application on site, WIKA offers design-in solutions. Whether customer-specific tank connection, individualised electrical connections or designs: We adapt the model RLS-7000 for original equipment manufacturers to their respective requirements. This minimises the effort and cost of installation and maintenance, with maximum safety and compatibility.

Change of function through 180° rotation
The reduction of variance and thus logistical effort is central in OEM production. For this reason, the model RLS-7000 miniature float switch, by rotating it through 180°, can be alternated from a normally open into a normally closed contact. Thus there is no need to keep a second float switch in stock.

Maximum reliability at a minimum cost
The model RLS-7000 is available in a variety of chemically resistant and robust plastics with very low water absorption. In addition, high-quality reed contacts guarantee up to one billion switching cycles, depending on the application. The use of the float switch is highly efficient in a multitude of applications thanks to its long-term, reliable performance and low “total cost of ownership”.

Data sheets showing similar products:
OEM float switch, miniature design, horizontal installation; model RLS-8000; see data sheet LM 50.12
Specifications

Float switch, model RLS-7000

Measurement principle
Potential-free switching reed contact is triggered by a magnet in the float.

Output signal
1 switch point

Switching function 1)  
Normally open (NO) - on rising level  
Can be used as normally closed (NC) contact by a 180° rotation of the float

Switching power
AC 230 V; 10 VA; 0.5 A; 50 ... 60 Hz  
DC 230 V; 10 W; 0.5 A

Accuracy
≤ 3 mm switch point accuracy incl. hysteresis, non-repeatability

Mounting position
≤ 30°

Material

Wetted
- Polypropylene (PP)
- Polyamide PA6.6
- Polyamide PA12

Non-wetted
PVC

Permissible temperatures

<table>
<thead>
<tr>
<th>Medium</th>
<th>-25 … +80 °C [-13 … +176 °F]</th>
<th>-25 … +100 °C [-13 … +212 °F]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient</td>
<td>-25 … +80 °C [-13 … +176 °F]</td>
<td>-25 … +100 °C [-13 … +212 °F]</td>
</tr>
<tr>
<td>Storage</td>
<td>-25 … +80 °C [-13 … +176 °F]</td>
<td>-25 … +80 °C [-13 … +176 °F]</td>
</tr>
</tbody>
</table>

Operating pressure
≤ 4 bar [≤ 58.0 psi]

Density

<table>
<thead>
<tr>
<th>Polypropylene (PP)</th>
<th>≥ 700 kg/m³ [43.7 lbs/ft³]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyamide PA6.6</td>
<td>≥ 750 kg/m³ [46.8 lbs/ft³]</td>
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</table>

1) Change-over contact on request

Electrical connections

<table>
<thead>
<tr>
<th>Cable outlet</th>
<th>Ingress protection per IEC/EN 60529</th>
<th>Protection class</th>
<th>Material</th>
<th>Cable length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable outlet</td>
<td>IP67</td>
<td>II</td>
<td>PVC</td>
<td>1 m [3.3 ft]</td>
</tr>
</tbody>
</table>

Other lengths and materials as well as M8 x 1 connector on request

Connection diagram

- Legend
  - WH White
  - BN Brown

[Connection diagram diagram]
Dimensions in mm [in]

with M16 x 2 circular connector, installation from inside

Switch points

<table>
<thead>
<tr>
<th>Switching function</th>
<th>Medium</th>
<th>Switch point X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normally open ¹)</td>
<td>Water</td>
<td>Approx. 17 mm</td>
</tr>
<tr>
<td></td>
<td>Oil</td>
<td>Approx. 12 mm</td>
</tr>
<tr>
<td>Normally closed ¹)</td>
<td>Water</td>
<td>Approx. 28 mm</td>
</tr>
<tr>
<td></td>
<td>Oil</td>
<td>Approx. 23 mm</td>
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</table>

¹) Normally closed/normally open switching function depends on the mounting direction of the mounted float

Option

Angled version on request
Ordering information
To order the described product the order number is sufficient.

Approvals

<table>
<thead>
<tr>
<th>Logo</th>
<th>Description</th>
<th>Country</th>
</tr>
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<tbody>
<tr>
<td>CE</td>
<td>EU declaration of conformity</td>
<td>European Union</td>
</tr>
<tr>
<td></td>
<td>• Low voltage directive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• RoHS directive</td>
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</table>

Manufacturer's information and certificates

<table>
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<th>Logo</th>
<th>Description</th>
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<td></td>
<td>China RoHS directive</td>
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Approvals and certificates, see website

Order numbers

<table>
<thead>
<tr>
<th>Model</th>
<th>Order number</th>
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<tbody>
<tr>
<td>Float switch from polypropylene (PP) 1 m cable from PVC</td>
<td>14319870</td>
</tr>
<tr>
<td>Float switch from polyamide PA6.6 1 m cable from PVC</td>
<td>14319872</td>
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Lot size: 50 pieces