SP69 Radar sensor for continuous water level measurement

APLICACIONES
- Lakes.
- Dams.
- Ponds.
- Rivers.
- Measuring deep water level.

CARACTERÍSTICAS CLAVES
- Measurement without contact.
- Measurement range of 120m.
- Rugged design.
- Without maintenance.
- Analog or digital version.
- Compatible with Smartyplanet.

The SP69 water level radar is the ideal solution for the continuous measurement of the water level in dams, ponds, rivers, etc.

It can be equipped with an encapsulated plastic antenna or a lens antenna integrated in a metal flange. This makes possible the optimal adaptation to the most varied process conditions.

The operation of the equipment is based on the emission of a continuous radar signal through its antenna. The signal sent is reflected by the product and captured in the form of an echo by the antenna. The frequency difference between the signal sent and the received signal is proportional to the distance and thus to the filling height. The filling height determined in this way is transformed into a corresponding output signal and output as a measurement value.

This water level radar reaches a distance of 120m and is precise and reliable.

The pieces of equipment that are in contact with the medium are made of 316L, PP or PEEK. The seal of the process is FKM or EPDM. The housings can be supplied in two-chamber version in plastic, stainless steel or aluminum materials. They are available in IP66 / I67 protection class.

The level radar is fully compatible with the Smartyplanet data visualization platform.
### Mechanical construction

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement range</td>
<td>120m</td>
</tr>
<tr>
<td>Measurement error</td>
<td>±5mm</td>
</tr>
<tr>
<td>Process pressure</td>
<td>-100 … 300 kPa</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-40…+200ºC</td>
</tr>
<tr>
<td>Environment, storage temperature</td>
<td>-40…+80ºC</td>
</tr>
<tr>
<td>Work voltage</td>
<td>Low voltage: 9.6…48 VDC, 20…42 VAC, 50/60 Hz</td>
</tr>
<tr>
<td>Work voltage</td>
<td>Network voltage: 90…253 VAC, 50/60 Hz</td>
</tr>
<tr>
<td>Protection grade</td>
<td>IP66 or IP67</td>
</tr>
<tr>
<td>Material</td>
<td>316L, PP or PEEK</td>
</tr>
<tr>
<td>Electronical versions</td>
<td>4…20 mA, Profibus PA, Fundación Fielbus, Modbus</td>
</tr>
</tbody>
</table>

**Plug and play Installation**

The design of this Station allows his installation under the concept "to plug and play". He places of simple form on posts, walls or poles, and its entail with the web of visualization is immediate and automatic.

**Better relation Cost - benefit**

The new concept of station of sensors allows to have the best technology to monitor and to control his resources to a cost very lower than other existing alternatives on the market.

**Sensors Networks**

The number of Stations to linking to his network is unlimited, being able to incorporate different models and configurations to form extensive networks that connect the information of his resources to Internet, to give response to the Smart cities of the future.

**Without complicated infrastructures**

With the different models of station it will be able to create networks of sensors adapted to the needs of his sector, without need of complicated infrastructures not costly.

**Visualization in web page**

The control of the sensors is realized by means of a web application personalized with multiple functionalities as alarms, historical, multiple users, etc. Accessible from any device connected to Internet.

**Multiple sensors**

There are multiple the precision sensors that can join. The model of Station selects depending on the type and 1 number of sensors that he needs.