The NIVOLIC SG is a high precision liquid level system designed to measure relative settlement using vibrating wire transducers.

**Description**

The NIVOLIC SG is a high-precision liquid level system designed to measure relative settlement in a multipoint system. It consists of a series of chambers connected together by a liquid line. In each chamber, a weight is suspended to a vibrating wire transducer.

Changes in elevation of the water level in the chamber modify the buoyancy force acting on the weight, thus modifying the resonant frequency of the vibrating wire. In the multipoint system, one of the chambers is the reference for the calculation of relative movements of all the other chambers. A thermistor is integrated in the gauge, enabling measure of temperature.

**Key Features**

- Long-term reliability
- High accuracy and resolution
- Frequency signal easy to process and transmit over long distances

**Applications**

- Dam foundations
- Deflection of bridges
- Building columns
- Floor slabs

www.smartec.ch
Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>100, 150, 300, 450, 600 mm</td>
</tr>
<tr>
<td>Accuracy*</td>
<td>±0.1% F.S. (each sensor is calibrated individually)</td>
</tr>
<tr>
<td>Resolution</td>
<td>Vibrating wire: 0.02% F.S. (min.)</td>
</tr>
<tr>
<td></td>
<td>Temperature: 0.1°C</td>
</tr>
<tr>
<td>Fluid type</td>
<td>Water (optional antifreeze solution)</td>
</tr>
<tr>
<td>Cables</td>
<td>IRC-41A: twisted shielded pairs, 22 AWG, with drain wire, PVC jacket, 6.4 mm OD</td>
</tr>
<tr>
<td></td>
<td>IRC-41AP: Identical to IRC-41A except that the jacket is made of polyethylene</td>
</tr>
<tr>
<td>Actuator weight</td>
<td>28 kg</td>
</tr>
</tbody>
</table>

Ordering Information

Please specify:
- Range
- Cable and tube lengths
- Number of chambers

Optional Accessories

- Support brackets

Smartec SA
Via Pobiette 11
CH-6928 Manno, Switzerland
Phone +41 91 610 18 00
Fax +41 91 610 18 01
Email info@smatec.ch
Web www.smartec.ch

SMARTEC SA reserves the right to make any changes in the specifications without prior notice.