NivuCompact

Ultrasonic compact echo sounder as 2- and 3-wire system for non-contact measurement of level, distance, empty space or volume. Parameters can be set directly on site without the need to open the enclosure.

The NivuCompact is an ultrasonic compact echo sounder for non-contact measurement of level, distance, empty space and volume. It can be used wherever reliable non-contact level measurement is required. Thanks to its very quick startup time of 4 seconds until value output, the NivuCompact is particularly suitable for battery-powered logger operation. The integrated display and the built-in keypad make programming extremely easy.

NivuCompact is available as 2-wire and 3-wire versions.

Typical applications:

- **Wastewater**: screening plants, flow control sections in stormwater treatment plants, volume measurements in vessels such as precipitants and similar, irrigation plants
- **Drinking water**: measurement of vessel filling levels, level measurements in tanks
- **Power generation**: cooling water circulation, hydropower plants
- **Industry**: liquid level measurements in tanks and containers
**Specifications**

**Sensor**

<table>
<thead>
<tr>
<th>NivuCompact</th>
<th>compact echo sounder incl. programming software and interface cable (not for Ex versions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure</td>
<td>• Weight: approx. 1 kg</td>
</tr>
<tr>
<td></td>
<td>• Protection: IP65</td>
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<tr>
<td></td>
<td>• 2 cable glands 4.5 - 10 mm</td>
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<tr>
<td>Mounting</td>
<td>via BSP or NPT thread</td>
</tr>
<tr>
<td></td>
<td>• 1.5&quot; (3 m/6 m versions)</td>
</tr>
<tr>
<td></td>
<td>• 2&quot; (10 m versions)</td>
</tr>
<tr>
<td>Temperature</td>
<td>• Process: -40 ºC to +80 ºC</td>
</tr>
<tr>
<td></td>
<td>• Ambient: -20 ºC to +65 ºC</td>
</tr>
<tr>
<td>Startup time</td>
<td>4 seconds until output</td>
</tr>
<tr>
<td>Beam angle</td>
<td>(-3dB half power) 10º</td>
</tr>
<tr>
<td>Variants NivuCompact</td>
<td>3 / 6 / 10</td>
</tr>
<tr>
<td>Measurement range</td>
<td>• 3: 0.2 m - 3 m</td>
</tr>
<tr>
<td></td>
<td>• 6: 0.3 m - 6 m</td>
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<tr>
<td></td>
<td>• 10: 0.3 m - 10 m</td>
</tr>
<tr>
<td>Input voltage range</td>
<td>11 - 30 V (12 - 28 V for Ex)</td>
</tr>
<tr>
<td>Measurement uncertainty</td>
<td>±0.25 % or 6 mm (whichever is greater)</td>
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<tr>
<td>Resolution</td>
<td>0.1 % of measurement range or 2 mm (whichever is greater)</td>
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<tr>
<td>Output</td>
<td>4 - 20 mA, resolution 5 µA</td>
</tr>
<tr>
<td>Temperature compensation</td>
<td>via internal temperature sensor (±0.5 ºC deviation)</td>
</tr>
<tr>
<td>Ex approval (optional)</td>
<td>only for 2-wire (without interface)</td>
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</tbody>
</table>

The NivuCompact may be wired as either a 2-wire or 3-wire, giving the features below:

**2-wire configuration**

RS232 (RJ12 port) connection for diagnostics and software updates, 4 digit LC display, 4 button keypad for parameter entry, power consumption: 3.5 - 22 mA, linearisation: integrated volume conversion f. various tank shapes see 2-wire, with additional backlit LC display, 0 - 10 V analog output 2 relays single pole two way, 1 A, 30 VDC/AC; Power consumption: relays energised <60 mA relays de-energised <12 mA

**3-wire configuration**

**Accessories**

| ZMS 120 | fastening angle (230 mm) made of stainless steel for NivuCompact 10 with 2" thread distance wall - sensor centre: 185 mm |
| ZMS 121 | fastening angle (525 mm) made of stainless steel for NivuCompact 10 with 2" thread distance wall - sensor centre: 332 mm and 480 mm |
| ZMS 123 | fastening angle (850 mm) made of stainless steel for NivuCompact 3 and 6 with 1.5" thread, may be widened to 2" thread for NivuCompact 10; distance wall - sensor centre: 450 mm and 650 mm and 805 mm |
| ZMS 131 | fastening angle (230 mm) made of stainless steel for NivuCompact 3 and 6 with 1.5" thread distance wall - sensor centre: 185 mm |
| Screw nut | PVC, 1.5" or 2" BSP/NPT thread |
| Reducer | PVC, 2" BSP/NPT outer thread to 1.5" BSP/NPT inner thread for NivuCompact |
| Interface cable | for NivuCompact |
| Surge arrester | Type 9002/13-280-110-001 for NivuCompact Ex supply in zone 0 / 1 / 2 |
| Cable | pre-configured, with plug for connection of NivuCompact to PCM Pro and PCM 4 level input |

You can find more information in the instruction manual or on www.nivus.com