- **Combi unit including sensor and transmitter**
- **Measuring ranges from 0.2 to 10 m**
- **Digital echo processing and linearisation**
- **Ideal for battery operation due to very quick startup and measuring times**
- **View echo profiles on PC**
- **Unit programming on site without opening the enclosure**
- **Integrated temperature compensation**
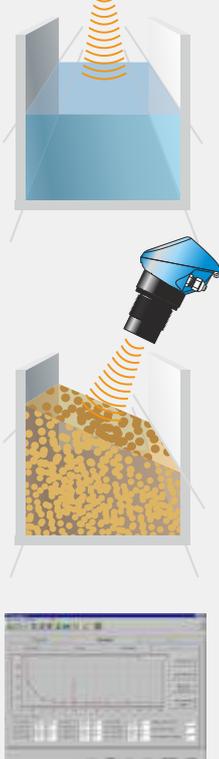- **ATEX approval for Ex zone 1**

NivuCompact

# NivuCom

**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.

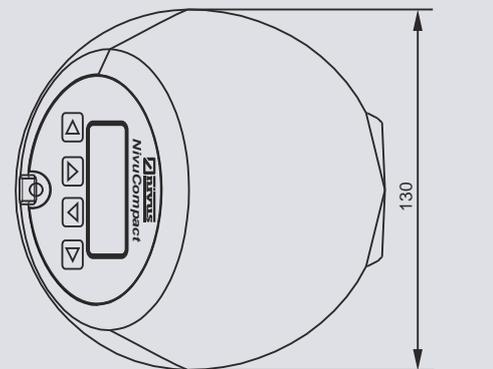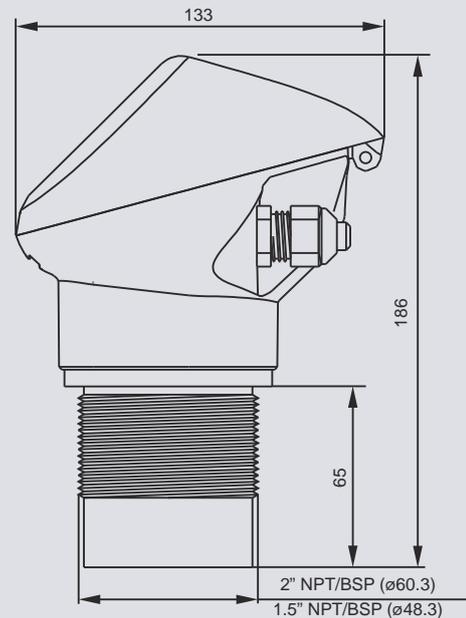NivuCompact is available as 2-wire and 3-wire versions.

**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 filing levels, level measurements in tanks
- **Power generation:** cooling water circulation, hydropower plants
- **Industry:** liquid level measurements in tanks and containers

**Instrumentation For Water Industry**

NIVUS GmbH • Im Taele 2 • 75031 Eppingen, Germany • Internet: www.nivus.com
Phone: +49 (0)7262 9191-0 • Fax: +49 (0)7262 9191-999 • E-Mail: info@nivus.com

**nivus**®

# Speci**fications**

| Sensor | |
|---|---|
| NivuCompact | compact echo sounder incl. programming software and interface cable (_not_ for Ex versions) |
| Enclosure | • Weight:        approx. 1 kg<br>• Protection:     IP65<br>• 2 cable glands 4.5 - 10 mm |
| Mounting | via BSP or NPT thread<br>• 1.5" (3 m/6 m versions)<br>• 2" (10 m versions) |
| Temperature | • Process:     -40 ºC to +80 ºC<br>• Ambient:    -20 ºC to +65 ºC |
| Startup time | 4 seconds until output |
| Beam angle<br>(-3dB half power) | 10º |
| Variants NivuCompact | 3 / 6 / 10 |
| Measurement range | • 3:      0.2 m - 3 m<br>• 6:      0.3 m - 6 m<br>• 10:    0.3 m - 10 m |
| Input voltage range | 11 - 30 V (12 - 28 V for Ex) |
| Measurement uncertainty | ±0.25 % or 6 mm<br>(whichever is greater) |
| Resolution | 0.1 % of measurement range or 2 mm<br>(whichever is greater) |
| Output | 4 - 20 mA, resolution 5 µA |
| Temperature compensation | via internal temperature sensor<br>(±0.5 ºC deviation) |
| Ex approval (optional) | only for 2-wire (without interface)<br>II 1 G Ex ia IIC T4 |
| 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 |
| 3-wire configuration | see 2-wire, with additional backlit LC display, 0 - 10 V analog output 2 relays single pole two way, 1 A, 30 VDC/AC;<br>Power consumption:<br>relays energised <60 mA<br>relays de-energised <12 mA |

### Enclosure Dimensions



133
186
65
2" NPT/BSP (ø60.3)
1.5" NPT/BSP (ø48.3)
130

Dimensions in **mm**

# 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 arrestor | 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**

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