(1) Physical-Techical Testing Institute
Ostrava - Radvanice

(2) EU - Type Examination Certificate
Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)

(3) EU - Type Examination Certificate number:

FTZÚ 16 ATEX 0171X

(4) Product: Sensor ALTOSONIC III, UFS III-R....-Ex
(5) Manufacturer: KROHNE Altemeter
(6) Address: Kerkeplaat 12; 3313 LC Dordrecht, The Netherlands

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physical-Techical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report number:


(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012, EN 60079-11:2012

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.

(11) This certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

Ex II 2G Ex ia IIC T6..T2 Gb

This certificate is valid till: 31.12.2021

Responsible person: Dipl. Ing. Lukáš Martináš
Head of Certification Body

Date of issue: 29.12.2016

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This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Techical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 595 232 672, ftzu@ftzu.cz, www.ftzu.cz
(14) EU - Type Examination Certificate No. FTZÚ 16 ATEX 0171X

(15) Description of Product:

The product Sensor ALTOPSONIC III is designed for measuring the flow rate of flammable and non-flammable fluids. Transducers are placed into measuring stainless tube; connection box is welded on the top of the house. For HT and LT sensors connecting box is placed in a cylinder neck of 10 cm between connection box and welded surrounding house.

The device is produced in 3 versions according ambient temperature and fluid temperature:
- Standard (ST) UFS III-R-Ex: \( T_p = -40^\circ C \ldots +160^\circ C \)
- Low process temperature (LT) UFS III-R-LT-Ex: \( T_p = -200^\circ C \ldots +120^\circ C \)
- High process temperature (HT) UFS III-R-HT-Ex: \( T_p = -40^\circ C \ldots +250^\circ C \)

<table>
<thead>
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<th>Temperature class</th>
<th>Maximum process liquid temperature at Tamb of 65°C</th>
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<tbody>
<tr>
<td></td>
<td>ST version</td>
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<tr>
<td>T6</td>
<td>50°C</td>
</tr>
<tr>
<td>T5</td>
<td>85°C</td>
</tr>
<tr>
<td>T4</td>
<td>120°C</td>
</tr>
<tr>
<td>T3</td>
<td>160°C</td>
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<td>T2</td>
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</table>

Then ultrasonic transducers are placed into stainless steel housing with measuring tube.

Intrinsically safe parameters:
- Transducer parameters:
  \[ U_i = 18 \text{ V}, \; I_i = 210 \text{ mA}, \; P_i = 1 \text{ W}, \; L_i = 700 \text{ \mu H}, \; C_i = 100 \text{ nF} \]
- Ambient temperature: \(-20^\circ C \leq T_a \leq +65^\circ C\)
  \(-55^\circ C \leq T_a \leq +65^\circ C\)

Degree of protection by enclosure: IP66

(16) Report Number: 16/0171

(17) Specific Conditions of Use:

1. Under certain extreme circumstances, the device with anti-corrosion painting may store an ignition-capable level of electrostatic charge. The device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge.
Physical-Technical Testing Institute  
Ostrava - Radvanice

Schedule

EU - Type Examination Certificate No. FTZÚ 16 ATEX 0171X

Essential Health and Safety Requirements:
Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (9) of this certificate.

Drawings and Documents:

<table>
<thead>
<tr>
<th>Document/Drawings</th>
<th>Rev./Ver.</th>
<th>Date:</th>
<th>Nr. of Pages</th>
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<tbody>
<tr>
<td>Application for IECEx and ATEX approval</td>
<td>00</td>
<td>29.12.2016</td>
<td>25</td>
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Responsible person:

Dipl. Ing. Lukáš Martinák  
Head of Certification Body

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