



Product Service

(1) **EU-Type Examination Certificate**

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**

(3) Number of Certificate of EU-Type Examination:

TPS 21 ATEX 018013 0020 X Issue 00



(4) Equipment: DC Motor of the Inline Pump 300 Ex d

(5) Manufacturer: Anton Paar GmbH

(6) Address: Anton-Paar-Strasse 20
8054 Graz
AUSTRIA

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

(8) TÜV SÜD Product Service GmbH, notified body No. 0123 in accordance with Article 17 of the Council Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential report 713235445.

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

EN 60079-0:2017

EN 60079-1:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and the construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacturer and supply of this equipment.

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

 **II 2G Ex db IIB T4 Gb**

Certification body Explosion Protection
Ridlerstraße 65, 80339 Munich

Munich, 18.03.2022

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Dipl.-Ing. Ulrich Jacobs
Technical Certifier



Product Service

(13) **Schedule**

(14) **EU-Type Examination Certificate TPS 21 ATEX 018013 0020 X** Issue 00

(15) Description of equipment:

The Inline Pump 300 Ex d is a small pump for non-corrosive, low viscous liquids. It supplies L-Dens 7000 Ex d series of density sensors and L-Com 5500 Ex d series of density and sound velocity sensors with a constant process media flow.

This certificate covers only the electrical parts of the pump assembly - DC motor in its flameproof enclosure.

All metal housing of the pump DC motor is of a welded construction, with a supply cable completely potted in its whole length through a stainless steel tube. The tube with cable in it is permanently attached by welding to the pump housing, and the same potting material is applied to the small cavity that remains free after installing the DC motor inside the pump housing. The motor is of a 12 VDC, 10.5 Watts maximum power, brushless DC type. No rotating parts are coming out of the pump housing, since the torque to the small propeller (Stirrer IP 300) is transmitted outward through the Hall effect (magnetic coupling). The Inline Pump 300 Ex d comes bundled with an Inline Adapter for connection of the pump with the process side, but also with a special adapter-gland (Cable bushing Ex d; M20x1.5 or NPT 1/2-14) for connection to the power supply, that is provided within the electronics enclosure. The special adapter-gland threads into the entrance hole of the electronics enclosure and then its inner bore makes a cylindrical flameproof joint with the tube of the motor enclosure.

Additionally the DC Motor enclosure meet IP66 requirements in accordance to IEC 60529 test requirements.

Relationship between the process media temperature and the maximum process media pressure is as follow:

$T_p \leq 70 \text{ }^\circ\text{C}$: $p \leq 50 \text{ bar}$
 $70 \text{ }^\circ\text{C} < T_p \leq 80 \text{ }^\circ\text{C}$: $p \leq 16 \text{ bar}$

Equipment designation details:

3	Size
0	Place holder
0	Generation 1

(16) Test report: 713235445

(17) Special conditions for safe use:

1. The application of the Inline Pump 300 Ex d is limited for use with L-Dens 7000 and L-Com 5500 series of density and sound velocity sensors made by the same manufacturer Anton Paar GmbH.
2. When in application with L-Dens 7000 (TPS 18 ATEX 18013 013 X) and/or L-Com 5500 (TPS 19 ATEX 18013 016 X), the Specific Conditions of Use given through the aforementioned individual certificates remain unchanged.
3. No modifications may be made to the cylindrical tube-to-adapter flamepath without consultation to the manufacturer's drawings.

(18) Essential health and safety requirements:

met by standards