

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx QPS 19.0028X**

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Certificate history:

Current Status:

Issue No: 1

Issue 0 (2021-02-25)

Date of Issue: 2022-03-15

Applicant: **Anton Paar GmbH**

Anton-Paar-Strasse 20

Graz. 8054 **Austria**

Equipment: DC Motor of the Inline Pump 300 Ex d

Optional accessory:

Type of Protection: d" flameproof

Ex db IIB T4 Gb Marking:

 $Ta = -25 \degree C \text{ to } +60 \degree C$

Tp = -25 $^{\circ}$ C to +80 $^{\circ}$ C

SELV 12 Vdc ± 20 %; max. 10.5 W

Approved for issue on behalf of the IECEx

Certification Body:

D. Adams P.Eng.

Position:

Manager, Hazardous Locations Department [Ex Equipment]

Signature:

(for printed version)

(for printed version)

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 The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Evaluation Services Inc. 81 Kelfield St Unit 8 Toronto, Ontario M9W 5A3 Canada





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Manufacturer: Anton Paar GmbH

Anton-Paar-Strasse 20

Graz, 8054 **Austria**

Manufacturing

locations:

Anton Paar GmbH Anton-Paar-Strasse 20

Graz, 8054 Austria

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" Edition:7.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

Quality Assessment Report:

DE/TPS/QAR14.0002/05



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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 cerificate 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 (Pico 3000). 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:

Tp \leq 70 °C: p \leq 50 bar 70 °C < Tp \leq 80°C: p \leq 16 bar

Equipment designation details:

3	Size
0	Place holder
0	Generation 1

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 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 range of sensors made by the same manufacturer Anton Paar GmbH, Austria.
- 2. When in application with L-Dens 7000 (IECEx QPS 18.0002X) and/or L-Com 5500 (IECEx QPS 19.0001X), 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.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

issue 1: minor changes to instruction manual and alternate adhesive material specification