



# 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](http://www.iecex.com)

Certificate No.: **IECEX QPS 18.0002X** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2018-03-27)

Status: **Current** Issue No: 1

Date of Issue: 2020-03-24

Applicant: **Anton Paar GmbH**  
Anton-Paar-Strasse 20  
Graz, 8054  
Austria

Equipment: **Density Sensor -L-Dens Series**

Optional accessory:

Type of Protection: **d**

Marking: **IECEX QPS 18.0002X**  
**Ex db IIB T4/T5 Gb**  
See equipment section for full marking details

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)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**QPS**  
**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

Additional  
manufacturing  
locations:

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:

[CA/QPS/ExTR18.0005/00](#)

[CA/QPS/ExTR18.0005/01](#)

Quality Assessment Report:

[DE/TPS/QAR14.0002/04](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The L-Dens 7000 density sensors series (L-Dens 7300/7400/7500) are process measuring instruments that are used to measure the density values of liquids. The sensor consists of the encapsulated sensing element and a sensor board, which is connected to the sensing element with a feedthrough. The sensor board is connected to the process instrumentation controller (Pico 3000) or to an external evaluation unit. The Pico 3000 can be installed in the electronic housing of the sensor or in an optional remote operating housing (Pico 3000 RC). The Pico 3000 can be used with an optional HMI (Pico 3000 HMI).

The limitation of the ambient temperature for the sensor or the sensor with Pico 3000 and the sensor with Pico 3000 and HMI is different.

Sensor or sensor with Pico 3000: Ta = -40°C to +70°C

Sensor with Pico 3000 and HMI: Ta = -20°C to +60°C

Model Nomenclature:

See Attached file

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

1. For power cable, use only a cable whose thermal stability of its insulation is minimum 90°C.
2. For cable entrances use only already certified Ex d or Ex db cable glands suitable for application and rated for a minimum of 80°C.
3. Unused openings shall be closed by use of already certified Ex d or Ex db stopping plugs suitable for application and rated for a minimum of 80°C.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**  
issue 1: new model L-Dens 7300 PETRO Series.

**Annex:**

[Attachment 1.pdf](#)

Model	Markings
<p><b>L-Dens 7300 SST Petro Ex d</b> <b>L-Dens 7300 SST Petro NPT Ex d</b></p> <p><b>L-Dens 7300 SST Petro Ex d (with Pico 3000)</b> <b>L-Dens 7300 SST Petro NPT Ex d (with Pico 3000)</b></p> <p>Where SST denotes material: SST - Stainless Steel 1.4404</p>	<p>Ex db IIB T4/T5 Gb Ta= -40°C to +70°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum process pressure: 50 bar</p>
<p><b>L-Dens 7300 SST Petro Ex d (with Pico 3000 and HMI)</b> <b>L-Dens 7300 SST Petro NPT Ex d (with Pico 3000 and HMI)</b></p> <p>Where SST denotes material: SST - Stainless Steel 1.4404</p>	<p>Ex db IIB T4/T5 Gb Ta= -20°C to +60°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum pressure: 50 bar</p>
<p><b>L-Dens 7400 AAA Ex d</b> <b>L-Dens 7400 AAA NPT Ex d</b> <b>L-Dens 7400 AAA Ex d (with Pico 3000)</b> <b>L-Dens 7400 AAA NPT Ex d (with Pico 3000)</b></p> <p>Where AAA denotes material options: HAS - Hastelloy C-276 SST - Stainless Steel 1.4404 TAN - Tantalum INC - Incoloy 825</p>	<p>Ex db IIB T4/T5 Gb Ta= -40°C to +70°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum pressure: 50 bar</p>
<p><b>L-Dens 7400 AAA Ex d (with Pico 3000 and HMI)</b> <b>L-Dens 7400 AAA NPT Ex d (with Pico 3000 and HMI)</b></p> <p>Where AAA denotes material options: HAS - Hastelloy C-276 SST - Stainless Steel 1.4404 TAN - Tantalum INC - Incoloy 825</p>	<p>Ex db IIB T4/T5 Gb Ta= -20°C to +60°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum pressure: 50 bar</p>
<p><b>L-Dens 7400 HAS HP Ex d</b> <b>L-Dens 7400 HAS HP NPT Ex d</b> <b>(High Pressure version)</b> <b>L-Dens 7400 HAS HP Ex d (with Pico 3000)</b> <b>L-Dens 7400 HAS HP NPT Ex d (with Pico 3000)</b> <b>(High Pressure version)</b></p> <p>Where HAS denotes material: HAS - Hastelloy C-276</p>	<p>Ex db IIB T4/T5 Gb Ta= -40°C to +70°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum process pressure: 180 bar for Tp≤ 70°C 140 bar for Tp≤ 125°C</p>
<p><b>L-Dens 7400 HAS HP Ex d (with Pico 3000 and HMI)</b> <b>L-Dens 7400 HAS HP NPT Ex d (with Pico 3000 and HMI)</b> <b>(High Pressure version)</b></p> <p>Where HAS denotes material: HAS - Hastelloy C-276</p>	<p>Ex db IIB T4/T5 Gb Ta= -20°C to +60°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum process pressure: 180 bar for Tp≤ 70°C 140 bar for Tp≤ 125°C</p>
<p><b>L-Dens 7500 HAS Ex d</b> <b>L-Dens 7500 HAS NPT Ex d</b> <b>L-Dens 7500 HAS Ex d (with Pico 3000)</b> <b>L-Dens 7500 HAS NPT Ex d (with Pico 3000)</b></p> <p>Where HAS denotes material: HAS - Hastelloy C-276</p>	<p>Ex db IIB T4/T5 Gb Ta= -40°C to +70°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum pressure: 50 bar</p>
<p><b>L-Dens 7500 HAS Ex d (with Pico 3000 and HMI)</b> <b>L-Dens 7500 HAS NPT Ex d (with Pico 3000 and HMI)</b></p> <p>Where HAS denotes material: HAS - Hastelloy C-276</p>	<p>Ex db IIB T4/T5 Gb Ta= -20°C to +60°C Tp= -40°C to 95°C for T5 and -40°C to 125°C for T4 Maximum pressure: 50 bar</p>

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Attachment 1

<b>Pico 3000 RC Ex d (with Pico 3000 and HMI)</b> <b>Pico 3000 RC NPT Ex d (with Pico 3000 and HMI)</b>	Ex db IIB T5 Gb Ta= -20°C to +60°C
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