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 18.0003X**

Certificate history:
Issue 0 (2018-05-01)

Status: **Current**

Issue No: 1

Date of Issue: 2020-02-12

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

Equipment: **Sound Velocity Sensors**

Optional accessory:

Type of Protection: **d**

Marking: IECEx QPS 18.0003X

Ex db IIB T4/T5 Gb

24 Vdc ± 20%, max. 4 W / max. 7W (with Pico 3000)

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 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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Certificate No.: **IECEx QPS 18.0003X**

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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/ExTR18.0006/00 CA/QPS/ExTR18.0006/01

Quality Assessment Report:

DE/TPS/QAR14.0002/02

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The L-Sonic 5100/6100 sound velocity sensors are process measuring instruments that are used to measure sound velocity values of liquids.

The sensor consists of the 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, the sensor with Pico 3000 and the sensor with Pico 3000 + Pico 3000 HMI is different.

Sensor: Ta = -25°C to +65°C

Sensor with Pico 3000: Ta = -25°C to +55°C

Sensor with Pico 3000 and HMI: Ta = -20°C to +55°C

Note: Pico 3000 is certified in IECEx QPS 18.0002X

Model Nomenclature: see attachment

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 0 -initial release

issue 1- minor changes to marking and documentation

Annex:

Attachment 1_1.pdf

Model	Markings
L-Sonic 5100 VN SST L3 Ex d **L-Sonic 5100 VN SST L3 NPT Ex d** **L-Sonic 5100 DN SST L3 Ex d** **L-Sonic 5100 DN SST L3 NPT Ex d**	Ex db IIB T4/T5 Gb Ta= -25°C to +65°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 16 bar IP66
L-Sonic 5100 VN SST L3 Ex d (with Pico 3000) **L-Sonic 5100 VN SST L3 NPT Ex d (with Pico 3000)** **L-Sonic 5100 DN SST L3 Ex d (with Pico 3000)** **L-Sonic 5100 DN SST L3 NPT Ex d (with Pico 3000)**	Ex db IIB T4/T5 Gb Ta= -25°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 16 bar IP66
L-Sonic 5100 VN SST L3 Ex d (with Pico 3000 and HMI) **L-Sonic 5100 VN SST L3 NPT Ex d (with Pico 3000 and HMI)** **L-Sonic 5100 DN SST L3 Ex d (with Pico 3000 and HMI)** **L-Sonic 5100 DN SST L3 NPT Ex d (with Pico 3000 and HMI)**	Ex db IIB T4/T5 Gb Ta= -20°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 16 bar IP66
L-Sonic 5100 EN AAA L6 Ex d **L-Sonic 5100 EN AAA L6 NPT Ex d** **L-Sonic 5100 AN AAA L6 Ex d** **L-Sonic 5100 AN AAA L6 NPT Ex d** **L-Sonic 5100 CF CL Ex d** **L-Sonic 5100 CF CL NPT Ex d** Where AAA denotes material options: SST - Stainless Steel 1.4404 HAS - HASTELLOY® HYBRID-BC1® alloy MON - Monel 400 ROC - Rhodium coated	Ex db IIB T4/T5 Gb Ta= -25°C to +65°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 pmax acc. to flange spec. IP66
L-Sonic 5100 EN AAA L6 Ex d (with Pico 3000) **L-Sonic 5100 EN AAA L6 NPT Ex d (with Pico 3000)** **L-Sonic 5100 AN AAA L6 Ex d (with Pico 3000)** **L-Sonic 5100 AN AAA L6 NPT Ex d (with Pico 3000)** **L-Sonic 5100 CF CL Ex d (with Pico 3000)** **L-Sonic 5100 CF CL NPT Ex d (with Pico 3000)** Where AAA denotes material options: SST - Stainless Steel 1.4404 HAS - HASTELLOY® HYBRID-BC1® alloy MON - Monel 400 ROC - Rhodium coated	Ex db IIB T4/T5 Gb Ta= -25°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 pmax acc. to flange spec. IP66
L-Sonic 5100 EN AAA L6 Ex d (with Pico 3000 and HMI) **L-Sonic 5100 EN AAA L6 NPT Ex d (with Pico 3000 and HMI)** **L-Sonic 5100 AN AAA L6 Ex d (with Pico 3000 and HMI)** **L-Sonic 5100 AN AAA L6 NPT Ex d (with Pico 3000 and HMI)** **L-Sonic 5100 CF CL Ex d (with Pico 3000 and HMI)** **L-Sonic 5100 CF CL NPT Ex d (with Pico 3000 and HMI)**	Ex db IIB T4/T5 Gb Ta= -20°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 pmax acc. to flange spec. IP66

Where AAA denotes material options: SST - Stainless Steel 1.4404 HAS - HASTELLOY® HYBRID-BC1® alloy MON - Monel 400 ROC - Rhodium coated	
L-Sonic 5100 DN40 GOC Ex d **L-Sonic 5100 DN40 GOC NPT Ex d**	Ex db IIB T4/T5 Gb Ta= -25°C to +65°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 16 bar IP66
L-Sonic 5100 DN40 GOC Ex d (with Pico 3000) **L-Sonic 5100 DN40 GOC NPT Ex d (with Pico 3000)**	Ex db IIB T4/T5 Gb Ta= -25°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 16 bar IP66
L-Sonic 5100 DN40 GOC Ex d (with Pico 3000 and HMI) **L-Sonic 5100 DN40 GOC NPT Ex d (with Pico 3000 and HMI)**	Ex db IIB T4/T5 Gb Ta= -20°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 16 bar IP66
L-Sonic 6100 D1 SST LS Ex d **L-Sonic 6100 D1 SST LS NPT Ex d**	Ex db IIB T4/T5 Gb Ta= -25°C to +65°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 100 bar for Tp≤ 50°C 70 bar for Tp≤ 125°C IP66
L-Sonic 6100 D1 SST LS Ex d (with Pico 3000) **L-Sonic 6100 D1 SST LS NPT Ex d (with Pico 3000)**	Ex db IIB T4/T5 Gb Ta= -25°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 100 bar for Tp≤ 50°C 70 bar for Tp≤ 125°C IP66
L-Sonic 6100 D1 SST LS Ex d (with Pico 3000 and HMI) **L-Sonic 6100 D1 SST LS NPT Ex d (with Pico 3000 and HMI)**	Ex db IIB T4/T5 Gb Ta= -20°C to +55°C Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4 Maximum pressure: 100 bar for Tp≤ 50°C 70 bar for Tp≤ 125°C IP66