IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx QPS 18.0003X

Issue No: 0

Certificate history:
Issue No. 0 (2018-05-01)

Status: **Current**

Date of Issue: **2018-05-01**

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 the Official IECEx Website.

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 location(s):

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 apparatus 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

*This Certificate **does not** indicate compliance with electrical 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 Report:

CA/QPS/ExTR18.0006/00

Quality Assessment Report:

DE/TPS/QAR14.0002/02

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Schedule

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 sending element and a process instrument controller, which is connected to the sensing element with a feedthrough. The process instrument controller includes an HMI Variant, Pico 3000 HMI and a non HMI version Pico 3000. As an option, the process instrument controller can be a separate unit, Pico 3000 RC, connected to the L-Sonic sensor with a cable.

Sensor models with the HMI are differentiated from non-HMI models by ambient temperature rating, whereby HMI version = Ta= -20°C to +55°C and non-HMI version= Ta= -25°C to +65°C

Note: Pico 3000 is certified in IECEx QPS 18.0002X

Model Nomenclature:

Model	Markings
L-Sonic 5100 VN SST Ex d	Ex db IIB T4/T5 Gb
L-Sonic 5100 VN SST NPT Ex d	Ta= -25°C to +65°C
L-Sonic 5100 DN SST Ex d	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 DN SST NPT Ex d	Maximum pressure: 16 bar
L-Sonic 5100 EN SST Ex d	
L-Sonic 5100 EN SST NPT Ex d	Ex db IIB T4/T5 Gb
L-Sonic 5100 AN SST Ex d	Ta= -25°C to +65°C
L-Sonic 5100 AN SST NPT Ex d	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 CF CL Ex d	p_{max} acc. to flange spec
L-Sonic 5100 CF CL NPT Ex d	
L-Sonic 5100 EN ROC Ex d	
L-Sonic 5100 EN ROC NPT Ex d	Ex db IIB T4/T5 Gb

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L-Sonic 5100 AN ROC Ex d	Ta= -25°C to +65°C
L-Sonic 5100 AN ROC NPT Ex d	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
	p_{max} acc. to flange spec.
L-Sonic 5100 DN40 GOC Ex d	Ex db IIB T4/T5 Gb
L-Sonic 5100 DN40 GOC NPT Ex d	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
L-Sonic 5100 EN HAS Ex d	Ex db IIB T4/T5 Gb
L-Sonic 5100 EN HAS NPT Ex d	Ta= -25°C to +65°C
L-Sonic 5100 AN HAS Ex d	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 AN HAS NPT Ex d	p_{max} acc. to flange spec.
L-Sonic 5100 EN MON Ex d	Ex db IIB T4/T5 Gb
L-Sonic 5100 EN MON NPT Ex d	Ta= -25°C to +65°C
L-Sonic 5100 AN MON Ex d	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 AN MON NPT Ex d	p_{max} acc. to flange spec.
	Ex db IIB T4/T5 Gb
	Ta= -25°C to +65°C
L-Sonic 6100 D1 SST LS Ex d	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
	Ex db IIB T4/T5 Gb

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L-Sonic 5100 VN SST Ex d with HMI	Ta= -20°C to +55°C
L-Sonic 5100 VN SST NPT Ex d with HMI	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 DN SST Ex d with HMI	Maximum pressure: 16 bar
L-Sonic 5100 DN SST NPT Ex d with HMI	
L-Sonic 5100 EN SST Ex d with HMI	Ex db IIB T4/T5 Gb
L-Sonic 5100 EN SST NPT Ex d with HMI	Ta= -20°C to +55°C
L-Sonic 5100 AN SST Ex d with HMI	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 AN SST NPT Ex d with HMI	p_{max} acc. to flange spec.
L-Sonic 5100 CF CL Ex d with HMI	
L-Sonic 5100 CF CL NPT Ex d with HMI	
L-Sonic 5100 EN ROC Ex d with HMI	Ex db IIB T4/T5 Gb
L-Sonic 5100 EN ROC NPT Ex d with HMI	Ta= -20°C to +55°C
L-Sonic 5100 AN ROC Ex d with HMI	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 AN ROC NPT Ex d with HMI	p_{max} acc. to flange spec.
	Ex db IIB T4/T5 Gb
L-Sonic 5100 DN40 GOC Ex d with HMI	Ta= -20°C to +55°C
L-Sonic 5100 DN40 GOC NPT Ex d with HMI	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
	Maximum pressure: 16 bar
L-Sonic 5100 EN HAS Ex d with HMI	Ex db IIB T4/T5 Gb
L-Sonic 5100 EN HAS NPT Ex d with HMI	Ta= -20°C to +55°C
L-Sonic 5100 AN HAS Ex d with HMI	Tp= -25°C to 95°C for T5 and -25°C to 125°C for T4
L-Sonic 5100 AN HAS NPT Ex d with HMI	p_{max} acc. to flange spec.

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L-Sonic 5100 EN MON Ex d with HMI L-Sonic 5100 EN MON NPT Ex d with HMI L-Sonic 5100 AN MON Ex d with HMI L-Sonic 5100 AN MON NPT Ex d with 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 p_{max} acc. to flange spec.
L-Sonic 6100 D1 SST LS Ex d with 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

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.