(1) # EU-Type Examination Certificate

TRANSLATION

Product Service

(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 19 ATEX 18013 016 X Issue 02

(4) Equipment: Density and Sound Velocity Sensor
Type: L-Com 5500 Series in “db”

(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 TB_713259280

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

EN IEC 60079-0:2018 **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/T5 Gb

Certification body Explosion Protection
Ridlerstraße 65, 80339 Munich

Munich, 07.07.2022

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Dipl.-Ing. (FH) Arno Butzke

Product Service

(13) # Schedule

(14) **EU-Type Examination Certificate TPS 19 ATEX 18013 016 X** issue 02

(15) Description of equipment:

The L-Com 5500 Sensor is an explosion-proof combination of density and sound sensor in one instrument for measuring 3-component mixtures. The sensor consists of the density sensor L-Dens 7500 with a piezoelectrically excited U-tube and an additional sound velocity module.
The density and sound velocity values are calculated directly by the sensor electronics. The L-Com 5500 with digital signal processing can be optionally equipped with the Pico 3000 transmitter and Pico 3000 HMI.
The sensor is suitable for monitoring and controlling liquid media / chemical mixtures.

Type Classification / Marking:

Model	Marking
L-Com 5500 HAS Ex d L-Com 5500 HAS NPT Ex d	Ex II 2G Ex db IIB T4/T5 Gb T_a= -25°C to +65°C T_p= -25°C to +95°C for T5 and -25°C to +125°C for T4 $p_{max.}$: 50 bar
L-Com 5500 HAS Ex d (with Pico 3000) L-Com 5500 HAS NPT Ex d (with Pico 3000)	Ex II 2G Ex db IIB T4/T5 Gb T_a= -25°C to +55°C T_p= -25°C to +95°C for T5 and -25°C to +125°C for T4 $p_{max.}$: 50 bar
L-Com 5500 HAS Ex d (with Pico 3000 and HMI) L-Com 5500 HAS NPT Ex d (with Pico 3000 and HMI)	Ex II 2G Ex db IIB T4/T5 Gb T_a= -20°C to +55°C T_p= -25°C to +95°C for T5 and -25°C to +125°C for T4 $p_{max.}$: 50 bar

Electrical Data:

Nominal voltage:	24 Vdc ± 20% (Safety extra low voltage SELV)	
Nominal power:	without Pico 3000	with Pico 3000
	max. 5 W	max. 8 W

(16) Test report: 713259280

(17) Special conditions for safe use:

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:

L-Com 5500 HAS Ex d: T_a = -25°C to +65°C

L-Com 5500 HAS Ex d with Pico 3000: T_a = -25°C to +55°C

L-Com 5500 HAS Ex d with Pico 3000 and Pico 3000 HMI: T_a = -20°C to +55°C

According to EN 60079-1:2014 cl. 16.1.2, the following routine tests shall be carried out:

- Static overpressure test with 13 bar on all oscillator tubes or one of the inspection methods listed in EN 60079-1, Clause 16.3
- Hydrostatic overpressure test with 75 bar on all oscillator tubes

For power cable, use only a cable whose thermal stability of its insulation is minimum 90°C.

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.

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

(18) Essential health and safety requirements:

met by standards (9)