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EU-Type Examination Certificate

(1)

(2) Equipment or protective system intended for use in potentially explosive atmospheres **- Directive 2014/34/EU**

(3) Certificate number: **SEV 15 ATEX 0131 X**

(4) Product: Turnable Diode Laser Spectrometer
Type GPro500

(5) Manufacturer: Mettler-Toledo GmbH

(6) Address: Im Hackacker 15, 8902 Urdorf, Switzerland

(7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report no 20CH-01571.X06

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018
EN 60079-1:2014
EN 60079-26:2015
EN 60079-28:2015
EN 60079-31:2014

Except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

Ex op is/[op is Ga] db IIC T6 Ga/Gb
Ex op is/[op is Da] tb IIIC T80 °C Da/Db

Eurofins Electric & Electronic Product Testing AG
Notified Body ATEX

Martin Plüss
Product Certification

(13) # Appendix

(14) **EU-Type Examination Certificate no. SEV 15 ATEX 0131 X**

(15) **Description of product**

The Tunable Diode Laser Spectrometer GPro500 should be approved for measuring concentrations of the specified gases in gas mixtures. The sensor GPro500 consists of a flameproof enclosure and contains optical elements, optoelectronics (diode laser and silicon detectors), analog and digital electronics for signal processing and I/O structure. The sensor is driven by the M400 transmitter and communicates over RS485. The Sensor is connected to the process over a probe with process window and corner cube. Due to the process window the spectrometer has no direct contact to Zone 0 and can be disconnected during the running process.

Ratings:	Supply circuit	U_N: max. 24 V;	P_N: max. 5 W
	Optical source	Optical power:	max. 15 mW
		Optical Irradiance:	max. 5 mW/mm^2

Classification of installation and use:	stationary
Ingress protection:	IP65
Rated ambient temperature range (°C):	-20 °C ≤ Ta ≤ +55 °C
Rated ambient temperature range (°C) for Ex Components	N/A

(16) **Specific conditions of use**

- Repairs of the flameproof joints must be made in compliance with the constructive specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in tables 1 and 2 of IEC 60079-1 Ed. 7.0.
- In the normal configuration, the temperature at the interface between the sensor head and the probe should not exceed +55 °C. The temperature at the interface to the sensor head is more than +55 °C, the temperature class T6 (85 °C) is exceeded.
- If the temperature exceeds +55 °C at the interface, a thermal barrier to limit the temperature to less than +55 °C has to be used in addition.
- The metal body of the TDL Spectrometer must be conductively connected with the equipotential bonding system of the installation

(17) **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	

(18) **Drawings and Documents**

See test report "Manufacturer's Documents"