



EC-Type Examination Certificate

(1)

(2)

Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 94/9/EC)

(3) EC-Type Examination Certificate Number:

FTZÚ 16 ATEX 0018X

(4) Equipment: **Ultrasonic gas flow meter GFE 202**

(5) Manufacturer: **Energoflow AG**

(6) Address: **Ringstrasse 28, 4600 Olten, Switzerland**

(7) This equipment or protective system and any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physical Technical Testing Institute, notified body number 1026 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 to the Directive.

The examination and test results are recorded in confidential Report N°:

16/0018 dated 12.02.2016

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

EN 60079-0:2012, EN 60079-11:2012

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and testing of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

 **II 2G**  **Ex ib IIB T4 Gb** - transducers EAT and box EU
 **II (2)G**  **[Ex ib Gb] IIB** - box PCU

This EC-Type Examination Certificate is valid till: **18.12.2020**

Responsible person:

L. Z. Jol

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: **12.02.2016**

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Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 16 ATEX 0018X**

(15) Description of Equipment:

The equipment is an intrinsically safe Ultrasonic gas flow meter type GFE 202 designed for measurement of volumetric flow rate and cumulative volume of natural or other gases. The equipment consists of four parts. The first is the In-line section (IS) consists of tube and two flanges with nominal diameter in range from 50 to 400 mm made from lapped steel. The second part is four stainless steel fully encapsulated Electroacoustic transducers (EAT) mounted into In-line section. The third part is one Electronics Unit (EU) made from aluminum alloy mounted above In-line section. The EU includes electronic circuits on five PCBs. The fourth part is the Power supply and communication unit (PCU) as an associated apparatus with power supply and data communication connections. The EAT, EU are covered by intrinsic safety with level of protection "ib" suitable for a hazardous area, the PCU is intended for use out of hazardous area and includes associated intrinsically safe circuits "[ib]".

Parameters: Degree of protection: EU - IP 67, EAT - IP 67, PCU - IP 54

Ambient temperature: EU with LCD: -30 to +55°C, EU without LCD: -40 to +55°C

EAT: -55 to +70°C, PCU: -40 to +55°C.

Media temperature: -55 to +55°C

PCU: Terminal X1: Um = 230 VAC, 50 Hz, Terminals X2, X3, X7, X8, X9: Um = 15 VDC

Maximal cable length between PCU and EU: 160 m

(16) Report No.: 16/0018

(17) Special conditions for safe use:

17.1 The equipment intrinsically safe circuits do not comply with dielectric strength requirements according to standard EN 60079-11. This fact shall be taken into consideration during the installation process.

17.2 The equipment terminals X2, X3, X7, X8, X9 on the PCU shall be connected to SELV, PELV circuits only.

(18) Essential Health and Safety Requirements:

Essential health and safety requirement of Directive 94/9/EC are covered by the standard mentioned in clause (9), according which the product was verified and in the manufacturer's instruction for use No. 636113.311 OM.

(19) List of Documentation:

Document No.:	Date:	Title:
636113.311 OM	11.02.2016	Operation manual
636113.311 TD	11.02.2016	Technical description
B.485.03.00.002-04	08.02.2016	Label drawing
B1.510.00.00.003-01	08.02.2016	Label drawing
B1.507.00.00.002-04	08.02.2016	Label drawing

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