

[1] **EU-TYPE EXAMINATION CERTIFICATE**



[2] **Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **CNEX 17 ATEX 0008X Issue 0**

[4] Equipment or Protective System: **Gas Turbine Flow Meter model MQMe**

[5] Manufacturer: **Metreg Technologies GmbH**

[6] Address: **Tränkeweg 9, 15517 Fürstenwalde, Germany**

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

[8] CNEX-Global B.V., Notified Body number 2614, in accordance with Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 No. 16017.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012+A11:2013 EN 60079-11:2012

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 equipment or protective system is subject to specific conditions for use specified in the schedule to this certificate.

[11] This EU – Type examination certificate relates only to the design and construction of the specified equipment or protective system. 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 1 G Ex ia IIC T4 Ga**

Certification officer: Wu Jianguo

Signature:

Date of issue: 2017-11-27

Certification Body: CNEX-Global B.V., Utrechtseweg 310-B38, 6812 AR, Arnhem, the Netherlands

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SCHEDULE
EU-TYPE EXAMINATION CERTIFICATE No.
CNEX 17 ATEX 0008X Issue 0
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[15] Description of equipment:

The MQMe gas turbine flowmeter consists of a main body with flow column, a terminal box, a temperature sensor, a pressure sensor and a flow sensor. The assembly is constructed in type of explosion protection intrinsic safety 'ia'. External communication can be achieved via five ports: external power port, HF digital output port, LF digital output port, 4~20mA signal output port and RS485 or M-BUS communication port. The main body contains the electronics, is construction in aluminum with a toughened glass window and includes two cable glands. The terminal box is made of aluminum and contains three cable glands. The temperature sensor and pressure sensor are constructed in stainless steel. The flow sensor is constructed in aluminum.

Nomenclature for model MQMe-a-b-c-d-e-f:

- MQMe - Product model
- a - Flow range (G16-G1000)
- b - Nominal diameter (DN25-DN150)
- c - Correction mode:
A = corrected pressure and temperature setting
B = automatic pressure detection, corrected temperature setting
C = automatic temperature detection, corrected pressure setting
D = corrected automatic temperature and pressure detection
- d - Communication output configuration
blank = with RS485 communication (default)
M = with M-bus communication
- e - Upper limit pressure (absolute pressure, MPa): fill in when automatic
- f - Accuracy class of basic meter:
Level 1.5 (default)
Level 1.0

Electrical Data:

Rated voltage: 12-24 Vdc

Input parameters of the communication ports:

Port name	Ui (V)	Ii (mA)	Pi (mW)	Ci (µF)	Li (µH)
External power port (V+, GND)	28	93	651	0.022	56.4
HF digital output port (HF, GND)	15.5	110	427	negligible	negligible
LF digital output port (LF, GND)	15.5	110	427	0.11	negligible
4-20 mA signal output port (I+, I-)	28	93	651	negligible	negligible
RS485 communication port (A, B)	6.6	65	110	17.3	56.4
M-BUS communication port (M+, M-)	38	50	475	negligible	negligible

Mounting Instructions:

See manufacturer's instructions.

Installation Instructions:

See manufacturer's instructions.

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[16] Descriptive Documents:

Detailed in the Test Report Cover document (CQST/ExTR1707G005).

[17] Specific Conditions for Use:

The ambient temperature range is limited to -25 °C ... +55 °C.

The only permitted battery pack covered in this certificate is the type ER34615 D 3.6V Primary Lithium battery made by EVE ENERGY Co., Ltd.

When used in Zone 0, measures should be taken to avoid ignition by impact or friction spark.

[18] Essential Health and Safety Requirements:

Concerning ESR this Schedule verifies compliance with the Annex III of 2014/34/EU directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant requirements and Directives.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.

Additional Information:

The enclosure of the MQMe gas turbine flowmeter successfully passed the tests for the Ingress Protection level IP65 to EN 60529.

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