

(1) **TYPE EXAMINATION CERTIFICATE**

(2) Equipment intended for use in potentially explosive atmospheres – Directive 94/9/EC.

(3) Type Examination Certificate Number: **KEMA 05ATEX1034 X**

(4) Equipment: **Low Flow Controller Models LFC Series
Low Flow Meters Models LFM Series**

(5) Manufacturer: **Micro Motion Inc.**

(6) **Address: 7070 Winchester Circle, Boulder, Co 80301, USA**

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

(8) KEMA Quality B.V. certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment 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. 2081104.

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

EN 50021 : 1999

(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 Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of the equipment.

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

 **II 3 G EEx nA II T4**

Arnhem, 10 March 2005
KEMA Quality B.V.


C.G. van Es
Certification Manager

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(13)

SCHEDULE

(14)

to Type Examination Certificate KEMA 05ATEX1034 X

(15) **Description**

The Low Flow Meters Model LFM Series convert a gas flow and density into an electrical signal using a thermal mass flow sensor. In addition the Low Flow Controllers Model LFC Series are equipped with an electromechanical valve that allows them to control a gas flow.

Ambient temperature range: 0 °C ... +65 °C.

Electrical data

Supply voltage:	13... 27 Vdc
Setpoint input:	0 ... 5 Vdc or 4 ... 20 mA
Output (analogue):	0 ... 5 Vdc or 4 ... 20 mA

(16) **Report**

KEMA No. 2081104.

(17) **Special conditions for safe use**

1. The Low Flow Meters Model LFM Series and the Low Flow Controllers Model LFC Series shall be installed in a suitable enclosed panel or rack providing a degree of ingress protection of at least IP54 according to EN 60529, taking into account the environmental conditions under which the equipment will be used.
2. When the temperature under rated conditions is higher than 70 °C at the cable or conduit entry point, or 80 °C at the branching point of the conductors, the temperature rating of the selected cable shall be higher than the actually measured temperature values.
3. Provisions shall be made to prevent the rated voltage being exceeded by transient disturbances of more than 40 %.

(18) **Essential Health and Safety Requirements**

Covered by the standard listed at (9).

(19) **Test documentation**

1. Type Examination Certificate KEMA 04ATEX1241 X

signed

2. Drawing no. EB-20002817, rev. A

03.03.2005