



(1) **TYPE EXAMINATION CERTIFICATE**

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

(3) **Type Examination Certificate Number: KEMA 04ATEX1273 X**

(4) **Equipment: Transmitters type LFT...L....**

(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. 2077488.

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

EN 50021 : 1999

EN 50281-1-1 : 1998 + A1

(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 GD EEx nC [L] IIC T6 T65 °C	or
II 3 GD EEx nC [L] IIB + H ₂ T6 T65 °C	or
II 3 GD EEx nC IIC T6 T65 °C	or
II 3 GD EEx nC IIB + H ₂ T6 T65 °C	

Arnhem, 7 January 2005
KEMA Quality B.V.



C.G. van Es
Certification Manager

* This Certificate may only be reproduced in its entirety and without any change

SCHEDULE

(13)

(14)

to Type Examination Certificate KEMA 04ATEX1273 X

(15) **Description**

The transmitters type LFT...L.... are, in combination with a flow sensor, used for mass flow measurement.

Transmitters type LFT1..L...., LFT3..L...., LFT4..L...., LFT6..L.... and LFT7..L.... are certified as category II 3 GD equipment.

Transmitters type LFT.1.L...., LFT.2.L.... and LFT.3.L.... are rated IIB + H₂.

Transmitters type LFT.4.L.... and LFT.5.L.... are rated IIC.

Only transmitters type LFT6..L.... and LFT7..L.... have circuits in type of explosion protection energy limitation EEx nL.

Part of the apparatus is constructed in type of explosion protection EEx nC, enclosed-break device. The enclosure of the apparatus provides a degree of ingress protection of at least IP 66 / IP 67 according to EN 60529. The maximum surface temperature of the transmitter enclosure, T65 °C is referred to a maximum ambient temperature of 55 °C.

Ambient temperature range: -40 °C to +55 °C for types LFT.1.L...., LFT.2.L.... and LFT.3.L....
 -20 °C to +55 °C for types LFT.4.L.... and LFT.5.L....

Electrical data

Types LFT1..L...., LFT3..L...., LFT4..L...., LFT6..L.... and LFT7..L....

Mains circuit.....	Voltage	18 ... 265	V ac/dc
(terminals 9 and 10 in main terminal compartment)	Input power	11	W maximum
	U _m =	265 V ac/dc	

Types LFT1..L...., LFT3..L.... and LFT4..L....

Input/output circuits.....	U _m =	60 V ac/dc
(terminals 1 to 6 in main terminal compartment)		

Types LFT6..L.... and LFT7..L....

Fieldbus circuit	in type of explosion protection energy limitation
(terminals Fieldbus 1 and 2 in main terminal compartment)	EEx nL IIC, only for connection to an energy limited fieldbus in accordance with the FNICO Model according to draft IEC 60079-27, with the following maximum values:

U _i	=	30	V
I _i	=	380	mA
P _i	=	5,32	W
C _i	=	0	nF
L _i	=	0	μH

Types LFT1..L...., LFT3..L...., LFT4..L...., LFT6..L.... and LFT7..L....

Power/signal circuit, flow sensor....	Voltage	16,3	V dc maximum
(terminals 1 to 4 in secondary terminal compartment)	Output power	6,0	W maximum

SCHEDULE

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(14)

to Type Examination Certificate KEMA 04ATEX1273 X**(16) Report**

KEMA No. 2077488.

(17) Special conditions for safe use

1. For the application of transmitters type LFT.1.L...., LFT.2.L.... and LFT.3.L.... in an ambient temperature of less than -20 °C, suitable cable and cable entries or conduit entries for this condition shall be used.
2. When cable entries are used they shall conform to clause 7.2.6 of EN 50021.
3. For transmitters type LFT6..L.... and LFT7..L.... only, the cover of the terminal compartment containing terminals 1 - 6 may be removed for short periods when the apparatus is in service to permit checking or adjustment of energized energy limited circuits.
4. A degree of ingress protection of at least IP 54 according to EN 60529 will only be achieved when cable and conduit entries providing IP54 according to EN 60529 are used. For application in explosive atmospheres caused by air/dust mixtures, a degree of ingress protection of at least IP 66 / IP 67 according to EN 60529 will only be achieved when cable and conduit entries are used that provide a degree of ingress protection of at least IP 66 / IP 67 according to EN 60529.
5. For the ambient temperature range and electrical data, see (15).

(18) Essential Health and Safety Requirements

Covered by the standard listed at (9).

(19) Test documentation

As listed in test report no. 2077488.