



# EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert No. GYJ071236X

This is to certify that the product

Transmitter

manufactured by Micro Motion, Inc.

(Address: Boulder, Co. 80301, USA)

which model is RFT9739 Series

Ex marking Ex d[ib] II CT6; [Ex ib] II C

product standard --

drawing number --

has been inspected and certified by NEPSI, and that it conforms  
to GB3836.1 - 2000, GB3836.2 - 2000, GB3836.4 - 2000

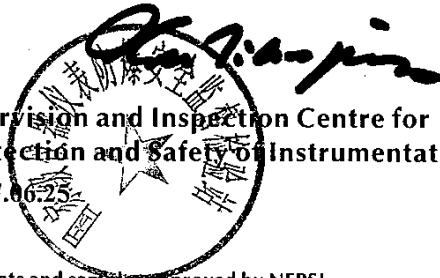
This Approval shall remain in force until 2012.06.24

- Remarks**
1. This certificate also cover the Transmitter with the same type that manufactured by Emerson Process Management Co., Ltd. (Address: No.1277, Xin Jin Qiao Rd., Pudong).
  2. When the sign "X" is placed after the certificate number, it indicates that the sensor is subject to special conditions for safe use specified in the attachment to this certificate.
  3. Type detail, Intrinsically safe parameters and Special requirements for safe use specified in the attachment to this certificate.

Director

National Supervision and Inspection Centre for  
Explosion Protection and Safety of Instrumentation

Issued Date 2007.06.25



This Certificate is valid for products compatible with the documents and samples approved by NEPSI.

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# 国家级仪器仪表防爆安全监督检验站

National Supervision and Inspection Centre for  
Explosion Protection and Safety of Instrumentation

(GYJ071236X)

(Attachment I)

## Attachment I (Translation)

Transmitters, type RFT9739 series, manufactured by Micro Motion, Inc. or by Emerson Process Management Co., Ltd., have been approved by National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation (NEPSI) in accordance with the following standards:

- GB3836.1-2000 Electrical apparatus for explosive gas atmospheres  
Part 1: General requirements
- GB3836.2-2000 Electrical apparatus for explosive gas atmospheres  
Part 2: Flameproof enclosure "d"
- GB3836.4-2000 Electrical apparatus for explosive gas atmospheres  
Part 4: Intrinsic safety "i"

The transmitters are approved with explosion marking of Ex d[ib] II CT6 or [Ex ib] II C, the certificate number is GYJ071236X.

The types to this certificate are as below:

RFT9739 1 2 E 3 4 5

1 code: E: filed-mount without display and Ex d[ib] II CT6; D: filed-mount with display and [Ex ib] II C; R: rock-mount and [Ex ib] II C;

2 code: Power code, Filed-mount: 4 or 5; Rock-mount: 1, 2 or 3;

3 code: P: Ex d[ib] II CT6; K: [EX ib] II C;

4 code: Letter for conduit connections;

5 code: Letter for language.

The permissible range of ambient temperature : -20°C ~ +55°C (RFT9739R Series)

-30°C ~ +45°C (RFT9739D Series)

-30°C ~ +45°C (RFT9739E Series)

-40°C ~ +45°C (RFT9739E□EP□□Series)

### I. SPECIAL CONDITIONS FOR SAFE USE

1.1 The transmitter type FT9739E□EK□□ series, type FT9739D□EK□□ series and type RFT9739R□EK□□ series must be installed outside the hazardous area in a such a way that it meets a degree of protection of at least IP20 in accordance with GB4208-1993.



1.2 When used with Ex d[ib] II CT6, the cable entry holes and the conduit entry holes have to be connected by means of suitable entry or blanking plug, shall be certified in type of flameproof enclosure Ex d II C accordance with GB3836.1-2000 and GB3836.2-2000, unused apertures shall be closed with suitable blanking plug, the instruction manual of entry or blanking plug shall be act.

1.3 The use of the transmitter at an ambient temperature under  $-20^{\circ}\text{C}$  is only admissible, if the cables and the entries are suitable for that temperature.

## II. SPECIAL REQUIREMENTS

2.1 The maximum voltage ( $U_m$ ) for non-intrinsically safe circuits at terminals (terminals code: 28-29/L-N/L1-N2/CL2 d32-z32): 250V a.c./d.c.

2.2 Intrinsically safe parameters at terminals for the intrinsically safe circuits:

Output circuits Terminals code	Gas groups	Max.output voltage $U_o$	Max.output current $I_o$	Max.output power $P_o$	Max.external parameters	
					$C_o(\mu F)$	$L_o(\mu H)$
Drive circuit: 1-2/ CN1 b2-z2	II B	11.4V	1.14A	1.2W	11.7	109
	II C				1.7	27.4
Pick-Off circuits: 5-9/6-8/ CN1 b8-z8/ b10-z10	II B	7.6V	0.00475A	0.018W	160	$6.3 \times 10^6$
	II C				10.4	$1.5 \times 10^6$
Temperature circuit: 3-4-7/CN1 b4-b6-z6	II B	14V	0.007A	0.025W	4.6	$2.9 \times 10^6$
	II C				0.73	$7.25 \times 10^5$

2.3 The transmitter shall be connected reliably to the earthing during installation and operation.

2.4 When used with Ex d[ib] II CT6, do not open the cover while the circuit energized; When used with [Ex ib] II C, the transmitter shall be located in the non-hazardous areas.

2.5 Users are forbidden to change the configuration to ensure the explosion protection performance of the equipment. Any faults shall be settled with experts from the manufacturer.

2.6 During installation, operation and maintenance, users shall comply with the relevant requirements of the product instruction manual, GB3836.13-1997 "Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres", GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous areas (other than mines)", GB3836.16-2006 "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)" and GB50257-1996 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

## III. MANUFACTURER'S RESPONSIBILITY

3.1 The instruction manual shall include all the clauses mentioned above.



**(GYJ071236X)**

**(Attachment I)**

3.2 The manufacturer shall exactly conform to the documents approved by NEPSI.

3.3 The nameplate shall include the following:

3.3.1 Intrinsically safe parameters or specification.

3.3.2 The permissible range of ambient temperature.

3.3.3 Identification of NEPSI.

3.3.4 Certificate No.

3.3.5 Ex Marking

National Supervision and Inspection Centre  
For Explosion Protection and Safety of Instrumentation



防爆安全



# 防爆合格证

证号: GYJ071236X

由美国高准公司  
(地址: Boulder, Co. 80301, USA)

制造的产品:

名称 称重变送器

型号规格 RFT9739 系列

防爆标志 Ex d[ib] II CT6; [Ex ib] II C

产品标准—

图样编号—

经图样及技术文件的审查和样品检验, 确认上述产品符合 GB3836.1-2000、GB3836.2-2000、GB3836.4-2000 标准, 特颁发此证。有效期自颁发日期起伍年内有效。

- 备注
1. 本证书同时适用于由艾默生过程控制有限公司(地址: 浦东新金桥路 1277 号)组装生产的相同型号变送器。
  2. 防爆合格证号后缀“X”表示使用时有特殊要求, 见本合格证附件。
  3. 认可产品型号、本安参数和产品使用注意事项见本合格证附件。

站长

国家级仪器仪表防爆安全监督检验站

颁发日期 二〇〇七年六月十五日



本证书仅对与认可文件和样品一致的产品有效。

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# 国家级仪器仪表防爆安全监督检验站

National Supervision and Inspection Centre for  
Explosion Protection and Safety of Instrumentation

(GYJ071236X)

(Attachment I)

## GYJ071236X防爆合格证附件 I

由美国高准公司或艾默生过程控制有限公司送检的RFT9739系列变送器，经国家级仪器仪表防爆安全监督检验站(NEPSI)检验，符合GB3836.1-2000“爆炸性气体环境用电气设备第1部分：通用要求”、GB3836.2-2000“爆炸性气体环境用电气设备第2部分：隔爆型“d””和GB3836.4-2000“爆炸性气体环境用电气设备第4部分：本质安全型“i””防爆标准规定的要求，产品防爆标志为 Ex d[ib] II CT6或[EX ib] II C，防爆合格证号为 GYJ071236X。

本次认可产品型号为 RFT9739 **1****2**E**3****4****5**，其中

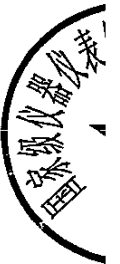
- 1** 代码：E为不带显示的现场安装方式，防爆标志为Ex d[ib] II CT6；D为将显示作为备选项的现场安装方式，防爆标志为[EX ib] II C；R为架装式安装方式，防爆标志为[EX ib] II C；
- 2** 代码：现场安装式变送器的电源代码为4和5；架装式变送器的电源代码为1、2或3；
- 3** 代码：防爆标志，P为Ex d[ib] II CT6；K为[EX ib] II C；
- 4** 代码：导管连接方式；
- 5** 代码：语言种类。

变送器使用环境温度范围：-20℃~+55℃（RFT9739R系列）  
-30℃~+45℃（RFT9739D系列）  
-30℃~+45℃（RFT9739E系列）  
-40℃~+45℃（RFT9739E□EP□□系列）

### 一、产品使用特殊要求

1. FT9739E□EK□□、FT9739D□EK□□和RFT9739R□EK□□系列变送器必须置于满足GB4208-1993规定的IP20要求的外壳内，并安装在安全场所。

2. 当防爆标志为Ex d[ib] II CT6时，电缆引入口必和导管引入口须配置引入装置或封堵件，该类部件必须是防爆检验机构依据GB3836.1-2000和GB3836.2-2000要求认可的Ex元件，其防爆标志为Ex d II C；冗余口用封堵件堵封，且引入装置或封堵件的安装使用必须遵守其说明书。



3. 当产品应用的环境温度低于-20℃时，电缆、引入装置和封堵件的允许使用环境温度必须符合相应环境要求。

## 二、产品使用注意事项

1、变送器非本安端子（端子代号：28 - 29/L - N/L1 - N2/CL2 d32 - z32）的最高电压 (Um): 250V a.c./d.c. 。

2、变送器本安端子的本安参数:

输出电路 端子代号	气体 组别	最高输出 电压Uo(V)	最大输出 电流Io(A)	最大输出 功率Po(W)	最大外部参数	
					Co(μ F)	Lo(μ H)
驱动线圈回路: 1-2/ CN1 b2-z2	II B	11.4	1.14	1.2	11.7	109
	II C				1.7	27.4
检测线圈回路: 5-9/6-8/ CN1 b8-z8/ b10-z10	II B	7.6	0.00475	0.018	160	$6.3 \times 10^6$
	II C				10.4	$1.5 \times 10^6$
温度传感器回路: 3-4-7/CN1 b4-b6-z6	II B	14	0.007	0.025	4.6	$2.9 \times 10^6$
	II C				0.73	$7.25 \times 10^5$

3、变送器安装使用时应可靠接地。

4、当变送器的防爆标志为Ex d[ib] II CT6时，必须切断电源后开盖；当变送器防爆标志为[Ex ib] II C时，必须置于不含爆炸危险性气体的非危险场所使用。

5、用户不得自行更换该产品的零部件，应会同产品制造商共同解决运行中出现的故障，以杜绝损坏现象的发生。

6、产品的安装、使用和维护应同时遵守产品说明书、GB3836.13 - 1997 “爆炸性气体环境用电气设备 第13部分：爆炸性气体环境用电气设备的检修”、GB3836.15 - 2000 “爆炸性气体环境用电气设备 第15部分：危险场所电气安装（煤矿除外）”、GB3836.16 - 2006 “爆炸性气体环境用电气设备 第16部分：电气装置的检查和维护（煤矿除外）”和GB50257 - 1996 “电气装置安装工程爆炸和火灾危险环境 电气装置施工及验收规范”的有关规定。

## 三、制造厂责任

1. 产品制造厂必须将上述使用注意事项纳入该产品使用说明书；
2. 制造厂必须严格按照NEPSI认可的文件资料生产；
3. 产品铭牌中必须包括下列内容：



- 3.1 产品的本安参数或说明；
- 3.2 使用环境温度；
- 3.3 NEPSI认可标志；
- 3.4 防爆合格证号；
- 3.5 防爆标志。

