



SITIAs
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防爆合格证

证号：GYJ23.1211X

制造商 恩德斯+豪斯公司

(地址：Obere Wank 1, 87484 Nesselwang, Germany)

产品名称 过程测控仪

型号规格 RMA42

防爆标志 [Ex ia Ga] II C

产品标准 /

图样编号 12 01 00 000

经图样及技术文件的审查和样品检验，确认上述产品符合下列标准：

GB/T 3836.1-2021, GB/T 3836.4-2021

特颁发此证。

本证书有效期：2023年09月28日至2028年09月27日

备注

1. 安全使用注意事项见本证书附件。
2. 本安电气参数见本证书附件。
3. 证书编号后缀“X”表明产品具有安全使用特殊条件，内容见本证书附件。
4. 本证书同时适用于恩德斯豪斯温度仪表（苏州）有限公司（地址：苏州工业园区江田里路31号）生产的同型号产品。



本证书仅对与认可文件和样品一致的产品有效。

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EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert No. GYJ23.1211X

Manufacturer	Endress + Hauser Wetzer GmbH + Co. KG (Address: Obere Wank 1, 87484 Nesselwang, Germany)
Product	Process transmitter
Model	RMA42
Ex marking	[Ex ia Ga] IIC
Product standard	/
Drawing number	12 01 00 000

The product was found to comply with the following standard(s):

GB/T 3836.1-2021,GB/T 3836.4-2021

Valid until: 2028.09.27

Remarks

- 1.Conditions for safe use are specified in the attachment to this certificate.
- 2.Intrinsic safety parameters specified in the attachment to this certificate.
- 3.Symbol "X" placed after the certification number denotes specific conditions of use , which are specified in the attachment(s) to this certificate.
- 4.This certificate is also applicable for the product with the same type manufactured by Endress+Hauser Wetzer (Suzhou) Co., Ltd. (address: No.31 JiangTianLiLu,Suzhou Industrial Park)



Approval

Shanghai Inspection and Testing Institute of
Instruments and Automation Systems Co., Ltd.
National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation
Date of issue 2023.09.28

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



(GYJ23.1211X)

(Attachment I)

GYJ23.1211X防爆合格证附件 I

由恩德斯+豪斯公司生产的RMA42型过程测控仪，经检验符合下列标准：

GB/T 3836.1-2021 爆炸性环境 第1部分：设备 通用要求

GB/T 3836.4-2021 爆炸性环境 第4部分：由本质安全型“i”保护的设

产品防爆标志[Ex ia Ga] II C，防爆合格证号GYJ23.1211X。

一、产品安全使用特殊条件

防爆合格证号后缀“X”表明产品具有安全使用特殊条件，即：产品使用环境温度范围为-20℃~+60℃。

二、产品使用注意事项

- 1、该产品必须置于不含爆炸性危险气体的安全场所使用。
- 2、产品电气参数：

电路/端子	电气参数
电源电路 (N/ -, L/ +)	20~253VAC/DC 50/60 Hz
输出电路，继电器 (R12, R11, R13或 R22, R21, R23)	250VAC, 3A 30VDC, 3A
CDI接口	U = 5V Um = 250V
脉冲/电流输出 (O15, O16或O25, O26)	I = 4~20mA Um = 250V
开路集电极 (D11, D12)	I = 200mA Um = 30V
二线制变送器电源 (11, 14, 12, 18或 21, 24, 22, 28)	U _o = 27.3V I _o = 96.5mA P _o = 659mW L _o = 425 μ H(II C), 4.9mH(II B), 100mH(II A) C _o = 62nF(II C), 262nF(II B), 532nF(II A) L _i = 75 μ H C _i = 8nF

续上表:

电路/端子	电气参数
四线制变送器电源 (11, 12或21, 22)	$U_o = 27.3V$ $I_o = 91.1mA$ $P_o = 622mW$ $L_o = 500 \mu H$ (II C), 2mH (II B), 20mH (II A) $C_o = 70nF$ (II C), 310nF (II B), 460nF (II A) $L_i = 75 \mu H$ $C_i = 8nF$
四线制变送器电源 或 电流输入(14, 18或24, 28) 或 电压输入(13, 18或23, 28)	$U_i = 28V$ $I_i = 100mA$ $P_i = 650mW$ $L_i = 75 \mu H$ $C_i = 8nF$ $U_o = 27.3V$ $I_o = 5mA$ $P_o = 34.2mW$ $L_o = 500 \mu H$ (II C), 2mH (II B), 100mH (II A) $C_o = 88nF$ (II C), 380nF (II B), 540nF (II A)
RTD 温度输入 (15/16/17/18 和 12/14或25/26/27/28和22/24)	$U_o = 27.3V$ $I_o = 22.1mA$ $P_o = 151mW$ $L_o = 500 \mu H$ (II C), 2mH (II B), 5mH (II A) $C_o = 85nF$ (II C), 360nF (II B), 530nF (II A) $L_i = 75 \mu H$ $C_i = 8nF$
热电偶温度输入 或 电压输入(17, 18或27, 28)	$U_i = 28V$ $I_i = 100mA$ $P_i = 650mW$ $L_i = 75 \mu H$ $C_i = 8nF$ $U_o = 27.3V$ $I_o = 15.5mA$ $P_o = 105.8mW$ $L_o = 1mH$ (II C), 2mH (II B), 100mH (II A) $C_o = 74nF$ (II C), 370nF (II B), 530nF (II A)

3、用户不得自行随意更换该产品的电气零部件，应会同产品制造商共同解决运行中出现的故障，以免影响防爆性能和损坏现象的发生。

4、产品的安装、使用和维护应同时遵守产品使用说明书、GB/T 3836.13-2021 爆炸性环境 第13部分：设备的修理、检修、修复和改造、GB/T 3836.15-2017 爆炸性环境 第15部分：电气装置的设计、选型和安装、GB/T 3836.16-2022 爆炸性环境 第16部分：电气装置的检查与维护、GB/T 3836.18-2017 爆炸性环境 第18部分：本质安全电气系统和GB 50257-2014 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

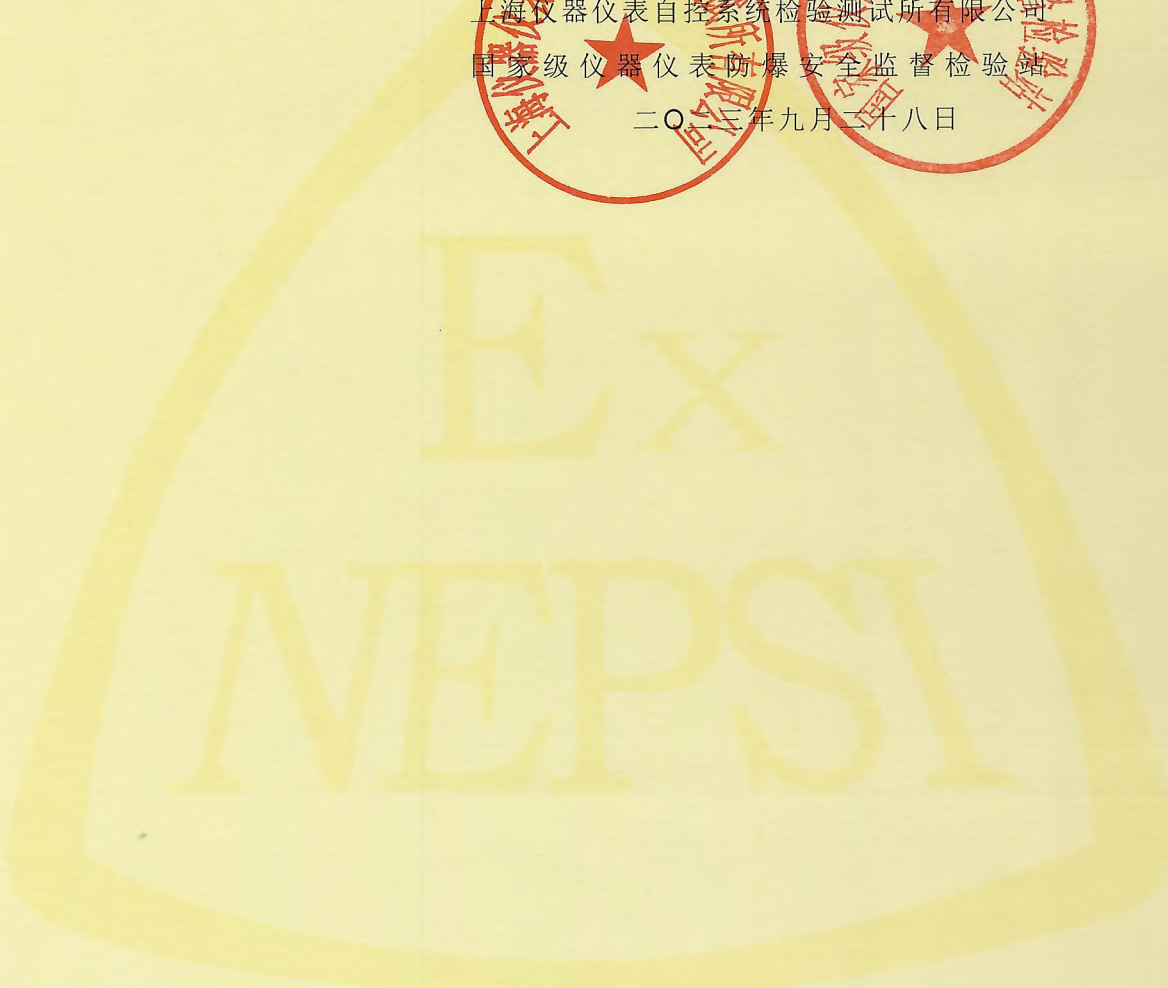
1、产品制造厂必须将上述产品安全使用特殊条件和产品使用注意事项纳入该产品使用说明书。

2、制造厂必须严格按照NEPSI认可的文件资料生产。

上海仪器仪表自控系统检验测试所有限公司

国家级仪器仪表防爆安全监督检验站

二〇二三年九月二十八日





(GYJ23.1211X)

(AttachmentI)

**Attachment I to GYJ23.1211X
(translation)**

1. Description

Process transmitter typed RMA42, manufactured by Endress+Hauser Wetzler GmbH+Co. KG, accords with following standards:

GB/T 3836.1-2021 Explosive atmospheres-Part 1: Equipment-General requirements

GB/T 3836.4-2021 Explosive atmospheres-Part 4: Equipment protection by intrinsic safety“i”

The Ex marking is [Ex ia Ga] II C, its certificate number is GYJ23.1211X.

2. Special Conditions for Safe Use

The suffix “X” placed after the certificate number indicates that this product is subject to special conditions for safe use, that is: The ambient temperature range is -20°C~+60°C.

3. Conditions for Safe Use

3.1 This equipment is intended for the application outside the hazardous area.

3.2 The electrical data:

Circuits/terminals	Electrical data
Supply circuit (N/ -, L/ +)	20~253VAC/DC 50/60 Hz
Output circuits, limit value relay (R12, R11, R13 or R22, R21, R23)	250VAC, approx. 3A or 30VDC, approx. 3A
Interface CDI	U = 5V Um = 250V
Puls outputs and current outputs (O15, O16 or O25, O26)	I = 4~20mA Um = 250V
Open Collector (D11, D12)	I = 200mA Um = 30V
2-wire measuring transducer supply (11, 14, 12, 18 or 21, 24, 22, 28)	Uo = 27.3V Io = 96.5mA Po = 659mW Lo = 425 μ H(II C), 4.9mH(II B), 100mH(II A) Co = 62nF(II C), 262nF(II B), 532nF(II A) Li = 75 μ H Ci = 8nF



Continue:

Circuits/terminals	Electrical data
4-wire measuring transducer supply (11, 12 or 21, 22)	$U_o = 27.3V$ $I_o = 91.1mA$ $P_o = 622mW$ $L_o = 500 \mu H$ (II C), 2mH (II B), 20mH (II A) $C_o = 70nF$ (II C), 310nF (II B), 460nF (II A) $L_i = 75\mu H$ $C_i = 8nF$
4-wire measuring transducer supply or current input(14, 18 or 24, 28) or voltage input(13, 18 or 23, 28)	$U_i = 28V$ $I_i = 100mA$ $P_i = 650mW$ $L_i = 75 \mu H$ $C_i = 8nF$ $U_o = 27.3V$ $I_o = 5mA$ $P_o = 34.2mW$ $L_o = 500 \mu H$ (II C), 2mH (II B), 100mH (II A) $C_o = 88nF$ (II C), 380nF (II B), 540nF (II A)
Temperature inputs (15/16/17/18 and 12/14 or 25/26/27/28 and 22/24)	$U_o = 27.3V$ $I_o = 22.1mA$ $P_o = 151mW$ $L_o = 500 \mu H$ (II C), 2mH (II B), 5mH (II A) $C_o = 85nF$ (II C), 360nF (II B), 530nF (II A) $L_i = 75\mu H$ $C_i = 8nF$
Thermocouple-Temperature inputs or voltage input (terminals 17, 18 or 27, 28)	$U_i = 28V$ $I_i = 100mA$ $P_i = 650mW$ $L_i = 75 \mu H$ $C_i = 8nF$ $U_o = 27.3V$ $I_o = 15.5mA$ $P_o = 105.8mW$ $L_o = 1mH$ (II C), 2mH (II B), 100mH (II A) $C_o = 74nF$ (II C), 370nF (II B), 530nF (II A)

3.3 The user shall not change the configuration in order to maintain/ensure the explosion protection performance of the equipment. Any change may impair safety.

3.4 For installation, use and maintenance of this product, the end user shall observe the instruction manual and the following standards:

GB/T 3836.13-2021 "Explosive atmospheres- Part 13:Equipment repair,overhaul,reclamation and modification".

GB/T 3836.15-2017 "Explosive atmospheres- Part 15:Electrical installations design, selection and erection".

GB/T 3836.16-2022 "Explosive atmospheres- Part 16:Electrical installations inspection and maintenance".

GB/T 3836.18-2017 "Explosive atmospheres- Part 18:Intrinsically safe electrical systems".

GB50257-2014 "Code for construction and acceptance of electric equipment on fire and device for explosion hazard electrical installation engineering".

4. Manufacturer's Responsibility

4.1 Conditions for safe use and special conditions for safe use, as specified above, should be included in the documentation the user is provided with.

4.2 Manufacturing should be done according to the documentation approved by NEPSI.

Shanghai Inspection and Testing Institute of
Instruments and Automation Systems Co., Ltd
National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation
2023.09.28