



SITIiAS
Worldwide Access

防爆合格证

证 号: GYJ21.2902X

制 造 商 Endress Hauser Yamanashi Co., Ltd.

(地址: 862-1 Mitsukunugi Sakaigawa-cho, Fuefuki-shi, Yamanashi)

产 品 名 称 多点平均温度计

型 号 规 格 Prothermo NMT81

防 爆 标 志 Ex ia II C T6 Ga/Gb Ex ia II B T6 Ga/Gb Ex ia II C T6 Gb

产 品 标 准 /

图 样 编 号 961004477_A

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, GB3836.20-2010

特颁发此证。

本证书有效期: 2021 年 10 月 08 日 至 2026 年 10 月 07 日

备 注

1. 安全使用注意事项见本证书附件。
2. 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。
3. 本安电气参数见本证书附件。
4. [更改 I] (更改内容: 产品中文名称更新/标准更新/本安参数更新) 2023 年 7 月 24 日签发。



批 准

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
颁发日期二〇二一年十月八日

本证书仅对与认可文件和样品一致的产品有效。

地址: 上海市漕宝路103号
邮编: 200233

网址: www.nepsi.org.cn
Email: info@nepsi.org.cn

电话: +86 21 64368180
传真: +86 21 64844580



Sitiias
Worldwide Access

EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert No. GYJ21.2902X

Manufacturer	Endress Hauser Yamanashi Co., Ltd. (Address: 862-1 Mitsukunugi Sakaigawa-cho, Fuefuki-shi, Yamanashi)
Product	Converter, Temperature and Water Level Transmitter
Model	Prothermo NMT81
Ex marking	Ex ia IIC T6 Ga/Gb Ex ia IIB T6 Ga/Gb Ex ia IIC T6 Gb
Product standard	/
Drawing number	961004477_A

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

GB/T 3836.1-2021, GB/T 3836.4-2021, GB3836.20-2010

Valid until: 2026.10.07

Remarks

1. Conditions for safe use are specified in the attachment(s) to this certificate.
2. Symbol "X" placed after the certification number denotes specific conditions of use, which are specified in the attachment(s) to this certificate.
3. Intrinsic safety parameters specified in the attachment(s) to this certificate.
4. [Variation I] (details, modify product chinese name/ standards/ Intrinsic safety parameters) issued on 2023.07.24.



Approval

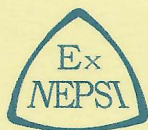
Shanghai Inspection and Testing Institute of
Instruments and Automation Systems Co., Ltd.
National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation
Date of issue 2021.10.08

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

103 Cao Bao Road
Shanghai 200233, China

<http://www.nepsi.org.cn>
Email: info@nepsi.org.cn

Tel: +86 21 64368180
Fax: +86 21 64844580



(GYJ21.2902X)

(Attachment II)

GYJ21.2902X防爆合格证附件 II

由Endress Hauser Yamanashi Co., Ltd.生产的Prothermo NMT81型多点平均温度计，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”保护的设备

GB 3836.20-2010 爆炸性环境 第20部分：设备保护级别（EPL）为Ga级的设备

产品防爆标志为Ex ia II C T6 Ga/Gb（一体式温度计）、Ex ia II B T6 Ga/Gb（一体式温度计+液位计）、Ex ia II C T6 Gb（仅转换器），防爆合格证号为GYJ21.2902X。

一、产品安全使用特殊条件

防爆合格证号后缀“X”表示该产品安全使用特殊条件，内容如下：

1. 产品不能承受GB/T 3836.4-2021条款6.3.12规定的500V绝缘耐压测试。用户在安装使用时应予以考虑。

2. 产品温度组别、使用环境温度和介质温度的关系如下：

一体式温度计			
温度类型	温度组别	环境温度	介质温度
标准	T6	-40℃~+60℃	-40℃~+100℃
低温	T6	-40℃~+60℃	-196℃~+100℃

一体式温度计+液位计			
温度类型	温度组别	环境温度	介质温度
标准	T6	-40℃~+60℃	-40℃~+70℃

仅转换器			
温度类型	温度组别	环境温度	介质温度
标准	T6	-40℃~+60℃	Tp*

Tp* 介质温度由客户使用传感器的规格书而定，介质温度的上限应注意不能对温度组别/使用环境温度范围产生不利影响。

二、产品使用注意事项

1. 产品必须与已通过防爆认证的关联装置配套共同组成本安防爆系统方可使用于爆炸性气体环境。其系统接线必须同时遵守本产品 and 所配关联装置的使用说明书要求，接线端子不得接错。

2. 产品本安电气参数如下:

一体式温度计/一体式温度计+液位计:

最高输入电压 U_i (V)	最大输入电流 I_i (mA)	最大输入功率 P_i (W)	最大内部等效参数	
			C_i (nF)	L_i (mH)
30	300	1	10	0

仅转换器:

最高输入电压 U_i (V)	最大输入电流 I_i (mA)	最大输入功率 P_i (W)	最大内部等效参数	
			C_i (nF)	L_i (mH)
30	300	1	10	0

最高输出电压 U_o (V)	最大输入电流 I_o (mA)	最大输入功率 P_o (mW)	最大内部等效参数	
			C_o (μF)	L_o (mH)
6	32.4	48.7	30($L_o=0$)	7.5($C_o=0$)

2. 与关联设备的连接电缆应为带绝缘护套的屏蔽电缆, 其屏蔽层应接地。

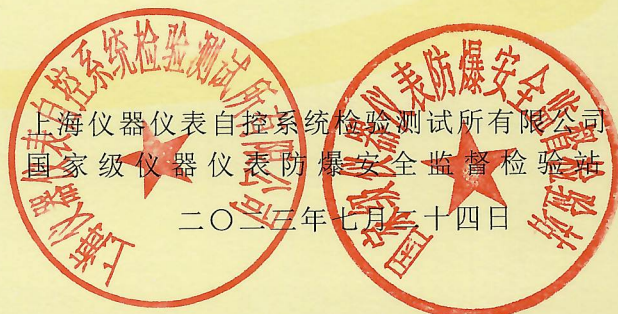
3. 用户不得自行随意更换该产品的电气零部件, 应会同产品制造商共同解决运行中出现的故障, 以免影响防爆性能和损坏现象的发生。

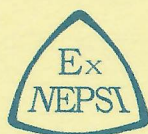
4. 产品的安装、使用和维护应同时遵守产品使用说明书、GB/T 3836.13-2021“爆炸性环境 第13部分: 设备的修理、检修、修复和改造”、GB/T 3836.15-2017“爆炸性环境 第15部分: 电气装置的设计、选型和安装”、GB/T 3836.16-2022“爆炸性环境 第16部分: 电气装置的检查与维护”、GB/T 3836.18-2017“爆炸性环境 第18部分: 本质安全电气系统”及GB 50257-2014“电气设备安装工程爆炸和火灾危险环境电气装置施工及验收规范”的有关规定。

三、制造厂责任

1. 产品制造厂必须将上述使用注意事项及产品安全使用特殊条件纳入该产品的使用说明书中。

2. 产品制造厂必须严格按照NEPSI认可的文件资料生产。





(GYJ21.2902X)

(Attachment II)

Attachment II to GYJ21.2902X (translation)

1. Description

Converter, Temperature and Water Level Transmitter typed Prothermo NMT81, manufactured by Endress Hauser Yamanashi Co., Ltd. has been certified and found to comply 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"

GB 3836.20-2010 Explosive atmospheres-Part 20: Equipment with equipment protection level (EPL) Ga

The relationship between model and Ex marking is shown as below:

The Ex marking Ex ia II C T6 Ga/Gb (Average Temperature Probe + Converter), Ex ia II B T6 Ga/Gb (Average Temperature probe + Water Bottom Sensor + Converter) and Ex ia II C T6 Gb (Converter only), its certificate number is GYJ21.2902X.

2. Specific 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:

2.1 The apparatus is not capable of withstanding the 500V insulation test required by Clause 6.3.12 of GB3836/T.4-2021. This must be taken into account when installing the equipment.

2.2 The relationship of temperature class, ambient temperature and process temperature is shown as following:

Temperature Only			
Temperature Specification	T-Class	T ambient	T Process
Standard	T6	-40°C~+60°C	-40°C~+100°C
Low Temp	T6	-40°C~+60°C	-196°C~+100°C

Temperature + Water bottom sensor			
Temperature Specification	T-Class	T ambient	T Process
Standard	T6	-40°C~+60°C	-40°C~+70°C

Converter Only			
Temperature Specification	T-Class	T ambient	T Process
Standard	T6	-40°C~+60°C	Tp*

Tp* process varies depending on the specification of the sensor, the upper limit of the Tp should be careful not to adversely affect the use of T-Class / T ambient.

3. Conditions for Safe Use

3.1 This product should be used in explosive gas atmospheres together with approved associated apparatus, follow the instruction manual of this product and associated apparatus when connecting the wiring. Connect the wiring terminals correctly.

3.3 Intrinsically safe parameters:

Average Temperature Probe + Converter; Average Temperature Probe + Water Bottom Sensor + Converter:

Ui(V)	Ii(mA)	Pi(W)	Ci(nF)	Li(mH)
30	300	1	10	0

Converter only:

Ui(V)	Ii(mA)	Pi(W)	Ci(nF)	Li(mH)
30	300	1	10	0

Uo(V)	Io(mA)	Po(mW)	Co(μF)	Lo(mH)
6	32.4	48.7	30(Lo=0)	7.5(Co=0)

3.4 Connecting cable between this product and associated apparatus should be insulated screen cable; connect the cable screen functionally to earth ground.

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

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

GB 50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

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

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".

4. Manufacturer's Responsibility

4.1 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.

