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防爆合格证

证 号: GYJ22.1030X

制 造 商 恩德斯+豪斯公司

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

产 品 名 称 温度变送器 (模块)

型 号 规 格 TMT181/187/188 系列

防 爆 标 志 Ex ia II C T4~T6 Ga/Gb

产 品 标 准 /

图 样 编 号 14 05 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 3836.1-2010, GB 3836.4-2010, GB 3836.20-2010

特颁发此证。

本证书有效期: 2022 年 03 月 01 日 至 2027 年 02 月 28 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. 型号规格说明见本证书附件。
4. 本安电气参数见本证书附件。
5. 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。

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

颁发日期二〇二二年三月一日

本证书仅对与认可文件和样品一致的产品有效。

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EXPLOSION PROTECTION

CERTIFICATE OF CONFORMITY

Cert No. GYJ22.1030X

Manufacturer	Endress + Hauser Wetzer GmbH + Co. KG (Address: Obere Wank 1, 87484 Nesselwang, Germany)
Product	Temperature Head Transmitter
Model	TMT 181/187/188 Series
Ex marking	Ex ia IIC T4~T6 Ga/Gb
Product standard	/
Drawing number	14 05 00 000

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

GB 3836.1-2010, GB 3836.4-2010, GB 3836.20-2010

Valid until: 2027.02.28

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. Model designation is specified in the attachment(s) to this certificate.
4. Intrinsic safety parameters specified in the attachment(s) to this certificate.
5. 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 2022.03.01

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

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(GYJ22.1030X)

(Attachment I)

GYJ22.1030X防爆合格证附件 I

由恩德斯+豪斯公司生产的TMT181/187/188系列温度变送器（模块），经检验符合下列标准：

GB3836.1-2010 爆炸性环境 第1部分：设备 通用要求

GB3836.4-2010 爆炸性环境 第4部分：由本质安全型“i”保护的设备

GB3836.20-2010 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Ex ia II C T4~T6 Ga/Gb，防爆合格证号GYJ22.1030X。

本证书认可的产品型号规格如下：

TMT 181-1□

TMT 187-1□

TMT 188-1□

其中：□表示连接型式、传感器、测量范围等，详见产品规格说明书。

一、产品安全使用特殊条件

产品防爆合格证号后缀“X”表示产品有安全使用特殊要求，具体内容如下：

本产品为模块结构，在现场使用时须安装在符合GB/T 4208-2017规定的IP20以上、且满足GB3836.1-2010和GB3836.4-2010要求的外壳中。

二、产品使用注意事项

1、产品使用环境温度和温度组别的关系：

温度组别	T4	T5	T6
允许环境温度（1区和2区）	-40℃~+85℃	-40℃~+70℃	-40℃~+55℃
允许环境温度（0区）	-40℃~+60℃	-40℃~+50℃	-40℃~+40℃

2、产品必须与已通过防爆认证的关联设备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 所配关联设备的使用说明书要求，接线端子不得接错。

3、产品的本安参数如下：

供电电源[1(+), 2(-)]	Ui=30V li=100mA Pi=750mW Ci≈0 Li≈0		
传感器回路[3, 4, 5, 6]	Uo=8.2V lo=4.6mA Po=9.35mW		
		II C	II B
	Co	974μF	1900μF
	Lo	4.5mH	8.5mH

4、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。

5、产品的安装、使用和维护应同时遵守产品说明书、GB 3836.13-2013“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 3836.16-2017“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GB50257-2014“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产品安全使用特殊条件和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。





(GYJ22.1030X)

(Attachment I)

Attachment I to GYJ22.1030X

1. Description

TMT181/187/188 series Temperature head transmitter, manufactured by Endress+Hauser Wetzler GmbH + Co.KG, accords with following standards:

GB3836.1-2010 Explosive atmospheres-Part 1: Equipment-General requirements

GB3836.4-2010 Explosive atmospheres-Part 4: Equipment protection by intrinsic safety"i"

GB3836.20-2010 Explosive atmospheres-Part 20: Equipment with equipment protection level (EPL) Ga

The Ex marking is Ex iaII C T4~T6 Ga/Gb, its certificate number is GYJ22.1030X.

Type approved in this certificate is shown as the following:

TMT181-1 ☐

TMT187-1 ☐

TMT188-1 ☐

☐ indicates type of connection, sensor, measuring range and etc.

Refer to instruction manual for the details.

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:

When using this head type product, it shall be installed in the enclosure which IP degree is at least IP20 according to GB/T 4208-2017, and meet the relative requirements of GB3836.1-2010 and GB3836.4-2010.

3. Conditions for Safe Use

3.1 The relationship between ambient temperature range and the temperature class is shown as follows:

Temperature class	Zone 0	Zone 1, Zone 2
T6	-40℃~+40℃	-40℃~+55℃
T5	-40℃~+50℃	-40℃~+70℃
T4	-40℃~+60℃	-40℃~+85℃

3.2 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:

Power supply [1(+), 2(-)]	Ui=30V	Ii=100mA	Pi=750mW	Ci≈0	Li≈0
	Uo=8.2V	Io=4.6mA	Po=9.35mW		
Sensor circuits [3, 4, 5, 6]		II C		II B	
	Co	974μF		1900μF	
	Lo	4.5mH		8.5mH	

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

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

GB3836.13-2013 "Explosive atmospheres- Part 13:Equipment repair, overhaul and reclamation".

GB3836.15-2017 "Explosive atmospheres- Part 15:Electrical installations design, selection and erection".

GB3836.16-2017 "Explosive atmospheres- Part 16:Electrical installations inspection and maintenance".

GB3836.18-2017 "Explosive atmospheres- Part 18: Intrinsically safe electrical system".

GB50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment 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
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