



SITIiAS
Worldwide Access

防爆合格证

证号: GYJ23.1145X

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 TMT84/85 系列

防 爆 标 志 Ex ia II C T4...T6 Ga

产 品 标 准 /

图 样 编 号 34 02 01 020 010~34 02 01 020 070

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03日至2028年09月02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
颁发日期二〇二三年九月三日

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. GYJ23.1145X

Manufacturer	Endress + Hauser Wetzer GmbH + Co. KG (Address: Obere Wank 1, 87484 Nesselwang, Germany)
Product	Head-type Temperature Transmitter
Model	TMT84/85 Series
Ex marking	Ex ia IIC T4...T6 Ga
Product standard	/
Drawing number	34 02 01 020 010~34 02 01 020 070

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

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

Valid until: 2028.09.02

Remarks

- 1.Conditions for safe use are specified in the attachment to this certificate.
- 2.Symbol "X" placed after the certification number denotes specific conditions of use, which are specified in the attachment to this certificate.
- 3.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 2023.09.03



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

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(GYJ23.1145X)

(Attachment I)

GYJ23.1145X防爆合格证附件 I

由恩德斯+豪斯公司生产的TMT 84/85系列温度变送器（模块），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
产品防爆标志Ex ia IIC T4...T6 Ga，防爆合格证号GYJ23.1145X。

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：

1、当产品安装于要求EPL Ga级的场所时，用户须采取有效措施防止产品外壳由于冲击或摩擦引起的点燃危险。

2、产品使用环境温度和温度组别的关系：

	0区	1, 2区
T6	-20℃~+40℃	-40℃~+55℃
T5	-20℃~+50℃	-40℃~+70℃
T4	-20℃~+60℃	-40℃~+85℃

若使用环境温度高于65℃，应选用至少耐热90℃连接电缆。

3、显示接口仅可连接TID10显示屏（GYJ23.1132X），连接后整套设备的设备保护级别降低到EPL Gb。

二、产品使用注意事项

1、作为本安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。

2、作为本安产品的电气参数：

端子代号	最高输入电压 Ui (V)	最大输入电流 Ii (mA)	最大输入功率 Pi (mW)	最大内部等效参数	
				Ci (nF)	Li (μH)
1, 2	24	250	1400	5	2.75
1, 2	17.5*	380*	/*	5*	2.75*

注：带*参数为符合FISCO总线设备的参数



端子代号	最高输出电压 U _o (V)	最大输出电流 I _o (mA)	最大输出功率 P _o (mW)	最大外部允许参数		
					Co (μF)	Lo (mH)
3, 4, 5 6, 7	7.2	25.9	46.7	II C	0.97	20
				II B	4.6	50
				II A	6	100

端子代号	最大内部等效参数	
	Ci (nF)	Ci (nF)
3, 4, 5 6, 7	5	0

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。

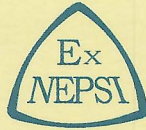
三、制造厂责任

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

二〇二三年九月三日



(GYJ23.1145X)

(Attachment I)

Attachment I to GYJ23.1145X

1. Description

TMT84/TMT85 series Head-type temperature transmitter, 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 II C T4...T6 Ga, its certificate number is GYJ23.1145X.

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:

2.1 To avoid an ignition hazard due to impact or friction when the product is installed in zone 0 with aluminum housing.

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

	Zone 0	Zone 1, Zone 2
T6	-20°C~+40°C	-40°C~+55°C
T5	-20°C~+50°C	-40°C~+70°C
T4	-20°C~+60°C	-40°C~+85°C

Use the connection cable endurance to at least 90°C when the ambient temperature is higher than 65°C.

2.3 Optionally, only the display type TID10(GYJ23.1132X), shall be connected to the display interface of the temperature head transmitter. The EPL of the complete equipment is then reduced to the EPL Gb.

3. Conditions for Safe Use

3.1 When used as Ex ia product, it 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.

3.2 The electrical datas of the intrinsically safe product:

terminals	Ui (V)	Ii (mA)	Pi (W)	Ci (nF)	Li (mH)
1, 2	24	250	1400	5	2.75
1, 2	17.5*	380*	/*	5*	2.75*

Note: the parameters with “*” meet the requirements of FISCO device



terminals	Uo (V)	Io (mA)	Po (mW)		Co (μF)	Lo (mH)
3,4,5,6,7	7.2	25.9	46.7	II C	0.97	20
				II B	4.6	50
				II A	6	100
terminals	Ci (nF)		Li (mH)			
3,4,5,6,7	5		0			

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

2023.09.03

