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# 防爆合格证

证 号：GYJ24.1028X

制 造 商 恩德斯+豪斯公司

(地址：Hauptstrasse 1, D-79689 Maulburg, Germany)

产 品 名 称 压力变送器

型 号 规 格 Cerabar S PMC71、PMP71/75

防 爆 标 志 Ex ia II C T6...T3 Ga/Gb

产 品 标 准 /

图 样 编 号 960534-0007-A、960535-0051-B、960006411-C、960006439-B

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, GB 3836.20-2010

特颁发此证。

本证书有效期：2024年01月26日至2029年01月25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. 电气安全参数见本证书附件。
4. 本证书同时适用于恩德斯豪斯(苏州)自动化仪表有限公司(地址：苏州工业园区苏虹中路491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

颁发日期二〇二四年一月二十六日

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. GYJ24.1028X

<b>Manufacturer</b>	<b>Endress+Hauser SE+Co.KG</b> (Address:Hauptstrasse 1, D-79689 Maulburg, Germany)
<b>Product</b>	<b>Pressure Transmitter</b>
<b>Model</b>	<b>Cerabar S PMC71, PMP71/75</b>
<b>Ex marking</b>	<b>Ex ia IIC T6...T3 Ga/Gb</b>
<b>Product standard</b>	/
<b>Drawing number</b>	<b>960534-0007-A、960535-0051-B、960006411-C、960006439-B</b>

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

GB/T 3836.1-2021,GB/T 3836.4-2021,GB 3836.20-2010

**Valid until: 2029.01.25**

**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.Safe parameters 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 (Suzhou) Automation Instrumentation Co., Ltd. (address: Su Hong Zhong Lu No.491, Suzhou-SIP, China)

## 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 2024.01.26**

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



(GYJ24.1028X)

(Attachment I)

## GYJ24.1028X 防爆合格证附件 I

由恩德斯+豪斯公司生产的 Cerabar S PMC71、PMP71/75 压力变送器，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 IIC T6...T3 Ga/Gb，防爆合格证号 GYJ24.1028X。

### 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，具体内容为：铝合金外壳的产品应用于 Ga 场所时，应防止由于冲击或摩擦引起的点燃危险。

### 二、产品使用注意事项

1、产品具体的型号规格、温度组别、环境温度及介质温度之间的关系见下表，详见产品使用说明书。

型号规格	温度组别	介质温度 T <sub>p</sub>	环境温度 T <sub>a</sub>
PMC71 PMP71 PMP75	T6	≤80℃	-40℃ <sup>2)</sup> ~+40℃
PMC71 PMP71	T4	≤120℃	-40℃ <sup>2)</sup> ~+70℃
PMC71	T3	≤150℃ <sup>1)</sup>	-40℃~+70℃
注：1) 仅高温型适用 2) 对 PMP71 和 PMP75，当特定选型（测试/证书=JN）时，最低环境温度 T <sub>a</sub> =-50℃			

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。

4、产品电气参数如下：

电子插件	安全参数
HART 输出代码 A、B、C	U <sub>i</sub> =30V    I <sub>i</sub> =300mA    P <sub>i</sub> =1W C <sub>i</sub> =11.8nF    L <sub>i</sub> =225 μH
HART 输出代码 D、E、F	U <sub>i</sub> =30V    I <sub>i</sub> =300mA    P <sub>i</sub> =1W C <sub>i</sub> =11.8nF    L <sub>i</sub> ≈0
Profibus PA	U <sub>i</sub> =24V    I <sub>i</sub> =250mA    P <sub>i</sub> =1.2W C <sub>i</sub> =5nF    L <sub>i</sub> =10 μH
Foundation Fieldbus	U <sub>i</sub> =17.5V *    I <sub>i</sub> =500mA *    P <sub>i</sub> =5.5W * C <sub>i</sub> =5nF *    L <sub>i</sub> =10 μH *
注：*表示此组参数满足 FISCO 总线设备的要求。	

5、分离型产品电子外壳和传感器之间的连接电缆最长允许 40 米。

6、产品过程连接件塑料涂覆或为塑料材质时，应避免干擦清洗以防静电危险。

7、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。

8、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纳入产品使用说明书；
- 2、制造厂必须严格按照 NEPSI 认可的文件资料生产；
- 3、产品铭牌中应至少包括下列内容：
  - a) NEPSI 认可标志（见防爆合格证书）
  - b) 产品防爆标志
  - c) 防爆合格证号
  - d) 使用环境温度
  - e) 电气参数说明

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

二〇二四年一月二十六日



**(GYJ24.1028X)**

**(Attachment I )**

**Attachment I to GYJ24.1028X**

**1. Description**

Cerabar S PMC71, PMP71/75 Pressure transmitter, manufactured by Endress+Hauser SE+Co.KG, has been certified and 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”

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

The Ex marking is Ex ia II C T6...T3 Ga/Gb, its certificate number is GYJ24.1028X.

**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:

For EPL Ga applications, at the metallic parts of the products made of light metal there is a danger of ignition by impact or friction.

**3. Conditions for Safe Use**

3.1 The relationship between product type, temperature class, ambient temperature and process temperature is shown as below, as detailed in the XA documents.

Type	Temperature class	Medium temperature range	Ambient temperature range
PMC71 PMP71 PMP75	T6	≤ 80°C	-40°C <sup>2)</sup> ~ +40°C
PMC71 PMP71	T4	≤ 120°C	-40°C <sup>2)</sup> ~ +70°C
PMC71	T3	≤ 150°C <sup>1)</sup>	-40°C ~ +70°C

Notes: 1) High Temperature version with extended sensor only  
 2) when option test/certificates=JN, the lower limit of the ambient temperature of -50°C is available for PMP71 and PMP75

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 Connecting cable between the temperature sensor and associated apparatus should be insulated screen cable; connect the cable screen functionally to earth ground.

3.4 Electrical data:

electronic insert	safe parameter
HART output options A, B, C	U <sub>i</sub> =30V    I <sub>i</sub> =300mA    P <sub>i</sub> =1W C <sub>i</sub> =11.8nF    L <sub>i</sub> =225 μ H
HART output options D, E, F	U <sub>i</sub> =30V    I <sub>i</sub> =300mA    P <sub>i</sub> =1W C <sub>i</sub> =11.8nF    L <sub>i</sub> ≈0
Profibus PA Foundation Fieldbus	U <sub>i</sub> =24V    I <sub>i</sub> =250mA    P <sub>i</sub> =1.2W C <sub>i</sub> =5nF    L <sub>i</sub> =10 μ H
	U <sub>i</sub> =17.5V*    I <sub>i</sub> =500mA*    P <sub>i</sub> =5.5W* C <sub>i</sub> =5nF*    L <sub>i</sub> =10 μ H*
Note: parameters with * fulfill the requirements of FISCO device.	

3.5 When the transmitter is separated mounted, the maximum cable length between the electronic enclosure and sensor should be up to 40m.

3.6 Transmitter with plastic coated process connection or completely made of plastic should observe the warning "Avoid electrostatic charge" when in using.

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

3.8 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, 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".

#### 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.

4.3 Nameplate should include these contents listed below:

- 1) NEPSI logo 
- 2) Ex marking
- 3) Certificate number
- 4) Ambient temperature range
- 5) Electrical data

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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