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防爆合格证

证 号: GYJ21.1245

制 造 商 恩德斯豪斯公司

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

产 品 名 称 显示单元

型 号 规 格 FHX40-C a b c

防 爆 标 志 Ex ia II C T6...T5 Gb

产 品 标 准 /

图 样 编 号 960005902, 960009514

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: 2021 年 06 月 03 日 至 2026 年 06 月 02 日

- 备 注
1. 安全使用注意事项见本证书附件。
 2. 型号规格说明见本证书附件。
 3. 本安电气参数见本证书附件。
 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。
 5. [更改 I]: 型号规格、防爆标志、检测标准更新。2022 年 8 月 24 日签发。



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. GYJ21.1245

Manufacturer	Endress+Hauser SE+Co. KG (Address: Hauptstrasse 1, D-79689 Maulburg, Germany)
Product	Display
Model	FHX40-C a b c
Ex marking	Ex ia IIC T6...T5 Gb
Product standard	/
Drawing number	960005902, 960009514

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

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

Valid until: 2026.06.02

Remarks

1. Conditions for safe use are specified in the attachment(s) to this certificate.
2. Model designation is specified in the attachment(s) to this certificate.
3. Intrinsic safety 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)
5. [Variation I]: Update model, Ex marking & standards. Signed on 2022.08.24.



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 2021.06.03

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

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(GYJ21.1245)

(Attachment II)

GYJ21.1245防爆合格证附件 II

由恩德斯豪斯公司生产的FHX40-**Ca b c**型显示单元，经国家级仪器仪表防爆安全监督检验站(NEPSI)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”保护的的设备

产品防爆标志Ex ia IIC T6...T5 Gb，防爆合格证号GYJ21.1245。

本证书认可产品型号规格如下：

FHX40-**Ca b c**

其中：**a**表示连接电缆长度，可为1 = 20m/65ft (HART)

5 = 20m/65ft (PROFIBUS PA /

FOUNDATION Fieldbus)

9 = 与安全无关的特殊版本

b表示附加信息，A = 基本型

B = 安装支架，管1” /2”

Y = 与安全无关的特殊版本

c表示标签信息（可选），可为1（与安全无关）。

一、产品使用注意事项

1、产品使用环境温度范围： $-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$ (T6)；

$-40^{\circ}\text{C} \sim +75^{\circ}\text{C}$ (T5)。

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、产品本安参数如下：

$U_i=5.6\text{V}$ $I_i=47\text{mA}$ $P_i=66\text{mW}$ $C_i=11\mu\text{F}$ $L_i=30\mu\text{H}$

4、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。

5、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。

6、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 3836.16-2017 “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。

二、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以下内容：
 - 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) 本安电气参数

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
二〇二二年八月二十四日

注：本附件是对2021年6月3日签发的附件 I 的更新。



(GYJ21.1245)

(Attachment II)

Attachment II to GYJ21.1245

(translation)

1. Description

Display typed FHX40-C^{a b c}, manufactured by Endress + Hauser SE+Co. KG, has been certified by National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI). This type of product 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 T6...T5 Gb, its certificate number is GYJ21.1245.

Type approved in this certificate is shown as following:

FHX40-C^{a b c}

Note: ^a indicates cable, including 1 = 20m/65ft (HART),

5 = 20m/65ft (PROFIBUS PA / FOUNDATION Fieldbus),

9 = special version not relevant for safety;

^b indicates additional option, A = Basic version,

B = Mounting bracket, pipe 1"/2",

Y = special version not relevant for safety;

^c indicates tagging (option), including 1 (not relevant for safety).

2. Conditions for Safe Use

2.1 Ambient temperature range of this product is (-40 ~ +60)°C for T6;

(-40 ~ +75)°C for T5.

2.2 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.

2.3 Intrinsic safety parameters are shown as following:

Ui=5.6V Ii=47mA Pi=66mW Ci=11μF Li=30μH

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

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

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

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 3836.16-2017 "Explosive atmospheres- Part 16:Electrical installations inspection and maintenance".

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

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

3. Manufacturer's Responsibility

3.1 Conditions for safe use, as specified above, should be included in the documentation the user is provided with.

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

3.3 Nameplate should at least include these contents listed below:

- 1) NEPSI logo 
- 2) Ex marking
- 3) certificate number
- 4) ambient temperature range
- 5) intrinsic safety parameters

Shanghai Inspection and Testing Institute of
Instruments and Automation Systems Co., Ltd.
National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation
2022.08.24

Note: This attachment is the amendment to the attachment I issued on 2021.06.03.