



防爆合格证

证 号: GYJ23.1170X

制 造 商 Festo SE & Co. KG

(地址: Ruiter Strasse 82, 73734 Esslingen, Germany)

产 品 名 称 电磁线圈

型 号 规 格 VACC-S13-18-K4-**-NE4ME

防 爆 标 志 Ex eb mb IIC T6...T4 Gb, Ex tb IIIC T85°C...T130°C Db

产 品 标 准 /

图 样 编 号 5369088

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 3836.3-2021, GB/T 3836.9-2021, GB/T 3836.31-2021
特颁发此证。

本证书有效期: 2023 年 07 月 27 日 至 2028 年 07 月 26 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. 电气安全参数见本证书附件。



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七月二十七日

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. GYJ23.1170X

Manufacturer	Festo SE & Co. KG (Address: Ruiters Strasse 82, 73734 Esslingen, Germany)
Product	Solenoid coil
Model	VACC-S13-18-K4-**-NE4ME
Ex marking	Ex eb mb IIC T6...T4 Gb, Ex tb IIIC T85°C...T130°C Db
Product standard	/
Drawing number	5369088

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

GB/T 3836.1-2021, GB/T 3836.3-2021, GB/T 3836.9-2021, GB/T 3836.31-2021

Valid until: 2028.07.26

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. Safe parameters specified in the attachment(s) to this certificate.



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 2023.07.27

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



(GYJ23.1170X)

(Attachment I)

GYJ23.1170X防爆合格证附件 I

由Festo SE & Co. KG生产的VACC-S13-18-K4-**-NE4ME型电磁线圈，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 3836.3-2021 爆炸性环境 第3部分：由增安型“e”保护的设备

GB/T 3836.9-2021 爆炸性环境 第9部分：由浇封型“m”保护的设备

GB/T 3836.31-2021 爆炸性环境 第31部分：由防粉尘点燃外壳“t”保护的设备

产品防爆标志Ex eb mb II C T6...T4 Gb、Ex tb IIIC T85℃...T130℃ Db，防爆合格证号为GYJ23.1170X。

本证书认可的产品型号规格如下：

VACC-S13-18-K4-**a**-NE4ME

其中，**a**表示额定电压和熔丝，可为1U、2U、3U、27U或1UF。

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、产品外壳塑料表面严禁干擦、摩擦，以防产生静电火花危险。

2、产品（**a** = 1U、2U、3U、27U）外部电源应串接熔丝保护，熔丝额定电压250V，分断能力至少1500A。

3、带分断能力300A的内部熔丝的产品，须标注警告语“电源的最大允许短路电流300A”。

4、使用环境温度范围：T6，T85℃：-30℃～+50℃

T5，T95℃：-30℃～+60℃

T4，T130℃：-30℃～+60℃

二、产品使用注意事项

1、产品外壳设有接地端子，用户在安装使用时应可靠接地。

2、产品电气参数如下：

不带内部熔丝	VACC-S13-18-K4-1U-NE4ME	VACC-S13-18-K4-2U-NE4ME	VACC-S13-18-K4-3U-NE4ME	VACC-S13-18-K4-27U-NE4ME
带内部熔丝	VACC-S13-18-K4-1UF-NE4ME	---	---	---
额定电压	24V +/- 10% DC 或 AC 40~65 Hz	110V +/- 10% DC 或 AC 40~65 Hz	230V +/- 10% DC 或 AC 40~65 Hz	60V +/- 10% DC 或 AC 40~65 Hz
熔丝分断能力	Littlefuse: 4000A 或 ESKA: 300A	---	---	---
额定功率	1.8 W / 1.8 VA			



3、产品使用环境温度、最高介质温度、温度组别和最高表面温度的关系如下：

使用环境温度	最高介质温度	温度组别	最高表面温度
-30℃~+60℃	+60℃	T4	T130℃
-30℃~+60℃	+60℃	T5	T95℃
-30℃~+50℃	+50℃	T6	T85℃

4、产品的外壳防护等级至少为IP65（GB/T 4208-2017）。

5、产品在现场使用和维护时必须遵守“断电源后开盖”的原则。

6、产品在粉尘环境使用维护时，应定期采取清洁措施，以防止表面积聚粉尘。

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 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”及GB 15577-2018“粉尘防爆安全规程”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或相关技术文件中；

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) 产品电气参数





(GYJ23.1170X)

(Attachment I)

Attachment I to GYJ23.1170X (translation)

1. Description

Solenoid coil typed VACC-S13-18-K4-**-NE4ME, manufactured by Festo 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 3836.3-2021 Explosive atmospheres-Part 3: Equipment protection by increased safety "e"

GB/T 3836.9-2021 Explosive atmospheres-Part 9: Equipment protection by encapsulation "m"

GB/T 3836.31-2021 Explosive atmospheres-Part 31: Equipment dust ignition protection by enclosure "t"

The Ex marking is Ex eb mb IIC T6...T4 Gb, Ex tb IIIC T85°C...T130°C Db, its certificate number is

GYJ23.1170X.

Type approved in this certificate is shown as the following:

VACC-S13-18-K4-**a**-NE4ME

a stands for nominal operating voltage and fuse, which can be: 1U, 2U, 3U, 27U or 1UF.

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 The solenoids have to be installed and used in a manner that electrostatic charges are excluded by operation, maintenance and cleaning.

2.2 Product with code **a**=1U, 2U, 3U or 27U has to be provided with an external fuse to prevent short-circuits. Up to a rated voltage of 250V, the breaking capacity of the fuse must be at least 1500A.

2.3 In case of an internal fuse type with 300A breaking capacity, a warning marking "Max. permissible short-circuit current of the power supply source 300A" is required.

2.4 Ambient temperature range:

T6, T85°C: -30°C ~ +50°C

T5, T95°C: -30°C ~ +60°C

T4, T130°C: -30°C ~ +60°C

3. Conditions for Safe Use

3.1 The external earth connection facility should be connected reliably.

3.2 Electrical data:

Type w/o fuse	VACC-S13-18-K4-1U-NE4ME	VACC-S13-18-K4-2U-NE4ME	VACC-S13-18-K4-3U-NE4ME	VACC-S13-18-K4-27U-NE4ME
Type with fuse	VACC-S13-18-K4-1UF-NE4ME	---	---	---
Rated voltage	24V +/- 10% DC or AC 40~65 Hz	110V +/- 10% DC or AC 40~65 Hz	230V +/- 10% DC or AC 40~65 Hz	60V +/- 10% DC or AC 40~65 Hz
Breaking capacity of installed fuse F	Littlefuse: 4000A or ESKA: 300A	---	---	---
Rated power	1.8 W / 1.8 VA			

3.3 The relationship between ambient temperature range, max. process temperature, temperature class and max. surface temperature is shown as below:

ambient temperature range	max. process temperature	temperature class	max. surface temperature
-30°C ~ +60°C	+60°C	T4	T130°C
-30°C ~ +60°C	+60°C	T5	T95°C
-30°C ~ +50°C	+50°C	T6	T85°C

3.4 Degree of protection of this product is at least IP65 (according to GB/T 4208-2017).

3.5 Any maintenance shall be performed only when the warning of "Do not open when energized" is observed.

3.6 Clean the surface of this product termly when using in combustibile dust atmosphere.

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

3.8 For installation, use and maintenance of this product, the end user should 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 15577-2018 "Safety regulations for dust explosion prevention and protection". (Only if installed in dust hazardous areas).

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 at least 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

2023.07.27