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EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert No. GYJ21.1326

Manufacturer	Festo SE & Co. KG (Address: Ruiter Strasse 82, 73734 Esslingen, Germany)
Product	Solenoid Coil
Model	VACN-N-A1-1-EX4-A
Ex marking	Ex ia IIC/IIB T6/T4 Gb, Ex tb IIIC T80°C/T130°C Db
Product standard	/
Drawing number	108-030-0246

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

GB/T 3836.1-2021, GB/T 3836.4-2021, GB/T 3836.31-2021

Valid until: 2026.05.25

Remarks

1. Conditions for safe use are specified in the attachment(s) to this certificate.
2. Safety parameters specified in the attachment(s) to this certificate.
3. [Variation I]: Update the Ex marking & standards. Issued on 2023.07.31.



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 2021.05.26

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



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防爆合格证

证 号: GYJ21.1326

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 VACN-N-A1-1-EX4-A

防 爆 标 志 Ex ia II C/II B T6/T4 Gb, Ex tb IIIC T80°C/T130°C Db

产 品 标 准 /

图 样 编 号 108-030-0246

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/T 3836.31-2021

特颁发此证。

本证书有效期: 2021 年 05 月 26 日 至 2026 年 05 月 25 日

备 注

1. 安全使用注意事项见本证书附件。
2. 安全电气参数见本证书附件。
3. [更改 I]: 防爆标志、检测标准更新。2023 年 7 月 31 日签发。



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

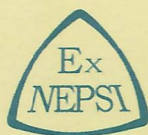
颁发日期 二〇二一年五月二十六日

本证书仅对与认可文件和样品一致的产品有效。

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



(GYJ21.1326)

(Attachment II)

GYJ21.1326防爆合格证附件 II

由Festo SE & Co. KG生产的VACN-N-A1-1-EX4-A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 3836.4-2021 爆炸性环境 第4部分：由本质安全型“i”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 ia II C/II B T6/T4 Gb, Ex tbIIIC T80℃/T130℃ Db, 防爆合格证号 GYJ21.1326。

一、产品使用注意事项

- 1、潜在静电电荷危险，仅允许使用湿布擦拭。
- 2、关联装置应优先选用隔离式安全栅；如选用齐纳式安全栅，应符合GB/T 3836.15-2017标准关于本安电路接地的要求。
- 3、产品使用环境温度、温度组别、最高表面温度和最高介质温度的关系如下：

温度组别（气体）	T6	T4
最高表面温度（粉尘）	T80℃	T130℃
使用环境温度	-40℃~+50℃	-40℃~+85℃
最高介质温度	70℃	80℃

- 4、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使用于爆炸性气体环境。其系统接线必须同时遵守本产品和所配关联设备的使用说明书要求，接线端子不得接错。

- 5、产品电气参数如下：

气体组别	最高输出电压 U_i (V)	最大输出电流 I_i (mA)	最大输入功率 P_i (W)	最大内部等效参数	
				C_i (μF)	L_i (mH)
IIC	28	115	1.6	0	0
IIB	32	195	1.6	0	0

- 6、产品外壳防护等级至少为IP65（GB/T 4208-2017）。
- 7、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。
- 8、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。



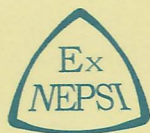
9、产品的安装、使用和维护应同时遵守产品使用说明书、GB/T 3836.13-2021“爆炸性环境 第13部分：设备的修理、检修、修复和改造”、GB/T 3836.15-2017“爆炸性环境 第15部分：电气装置的设计、选型和安装”、GB/T 3836.16-2022“爆炸性环境 第16部分：电气装置的检查与维护”、GB/T 3836.18-2017“爆炸性环境 第18部分：本质安全电气系统”、GB 50257-2014“电气设备安装工程爆炸和火灾危险环境电气装置施工及验收规范”及GB 15577-2018“粉尘防爆安全规程”的有关规定。

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

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
二〇二二年七月三十一日

注：本附件是对2021年5月26日签发的附件 I 的更新。



(GYJ21.1326)

(Attachment II)

Attachment II to GYJ21.1326 (translation)

1. Description

Solenoid coil typed VACN-N-A1-1-EX4-A, 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 3836.4-2021 Explosive atmospheres-Part 4: Equipment protection by intrinsic safety“i”

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

The Ex marking is Ex ia II C/ II B T6/T4 Gb, Ex tbIIIC T80℃/T130℃ Db, its certificate number is GYJ21.1326.

2. Conditions for Safe Use

2.1 Potential electrostatic charge danger, only wet cloth wiping is allowed.

2.2 The isolated safety barriers should be preferred for the associated device; if Zener type safety barriers are selected, it should meet the requirements of GB/T 3836.15-2017 for intrinsically safe circuit grounding.

2.3 The relationship between temperature class, maximum surface temperature, ambient temperature range and maximum medium temperature is shown as below:

temperature class (gas)	T6	T4
maximum surface temperature (dust)	T80℃	T130℃
ambient temperature range	-40℃～+50℃	-40℃～+85℃
maximum medium temperature	70℃	80℃

2.4 Ex ia 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.

2.5 Electrical data:

Gas class	Ui (V)	Ii (mA)	Pi (W)	Ci (μF)	Li (mH)
II C	28	115	1.6	0	0
II B	32	195	1.6	0	0

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

2.7 Clean the surface of this product termly when using in combustile dust atmosphere.

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



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

GB 15577-2018 "Safety regulations for dust explosion prevention and protection". (Only if installed in dust hazardous areas).

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) 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
2023.07.31

Note: This attachment is the amendment to the attachment I issued on 2021.05.26.