



防爆合格证

证号: GYJ21.1292X

由 VEGA Grieshaber KG

制造的产品:

(地址: Am Hohenstein 113, D-77761 Schiltach, Germany)

名称 控制器

型号规格 VEGATOR 121 系列, VEGATOR 122 系列

防爆标志 Ex ic nA nC [Ia Ga] IIC T4 Gc,
Ex ic nA nC [IaD] IIC T4 Gc or [Ex ia Ga] IIC, [Ex iaD]

产品标准 /

图样编号 GE3084

经图样及技术文件的审查和样品检验, 确认上述产品符合 GB 3836.1-2010, GB 3836.4-2010, GB 3836.20-2010, GB 3836.8-2014, GB 12476.1-2013, GB 12476.4-2010, 标准, 特颁发此证。

本证书有效期: 2021年06月28日至2026年06月27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. 电气安全参数见本证书附件。
4. 本安电气参数见本证书附件。
5. 本证书同时适用于 VEGA Americas Inc. (4241 Allendorf Drive, Cincinnati, Ohio 45209, USA) 组装生产的相同型号产品。

站长



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六月二十八日

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.GYJ21.1292X

This is to certify that the product

Signal conditioning instrument

manufactured by VEGA Grieshaber KG

(Address: Am Hohenstein 113, D-77761 Schiltach, Germany)

which model is VEGATOR 121series, VEGATOR 122 series

Ex marking Ex ic nA nC [ia Ga] IIC T4 Gc,
Ex ic nA nC [iaD] IIC T4 Gc or [Ex ia Ga] IIC, [Ex iaD]

product standard /

drawing number GE3084

has been inspected and certified by NEPSI, and that it conforms
to GB 3836.1-2010, GB 3836.4-2010, GB 3836.20-2010, GB 3836.8-2014,
GB 12476.1-2013, GB 12476.4-2010.

This Approval shall remain in force until 2026.06.27

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. Safe parameters specified in the attachment(s) to this certificate.
4. Intrinsic safety parameters specified in the attachment(s) to this certificate.
5. This certificate also cover the product with the same type that manufactured by VEGA Americas Inc.(4241 Allendorf Drive, Cincinnati, Ohio 45209, USA).

Director

National Supervision and Inspection Centre for
Explosion Protection and Safety of Instrumentation

Issued Date 2021.06.28

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

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国家级仪器仪表防爆安全监督检验站

National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation

(GYJ21.1292X)

(Attachment I)

GYJ21.1292X防爆合格证附件 I

由VEGA Grieshaber KG和VEGA Americas Inc.生产的VEGATOR 121系列, VEGATOR 122系列控制器, 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 3836.1-2010 爆炸性环境 第1部分: 设备 通用要求

GB 3836.4-2010 爆炸性环境 第4部分: 由本质安全型“i”保护的的设备

GB 3836.8-2014 爆炸性环境 第8部分: 由“n”型保护的的设备

GB 3836.20-2010 爆炸性环境 第20部分 设备保护级别(EPL)为Ga级的的设备

GB 12476.1-2013 可燃性粉尘环境用电气设备 第1部分: 通用要求

GB 12476.4-2010 可燃性粉尘环境用电气设备 第4部分: 本质安全型“ID”

产品防爆标志为Ex ic nA nC [ia Ga] IIC T4 Gc, Ex ic nA nC [iaD] IIC T4 Gc或 [Ex ia Ga] IIC, [Ex iaD], 防爆合格证号为GYJ21.1292X.

产品具体认可型号为:

VEGATOR 121. *ā b c d e f g*

ā: 代表范围, 可选代码为N;

b: 代表认证, 可选代码为A、C;

c: 代表版本, 可选代码为X、S;

d: 代表SIL认证, 可选代码为X、S;

e: 代表外壳/保护, 可选代码为K;

f: 代表端子排/连接, 可选代码为B;

g: 代表证书, 可选代码为M.

VEGATOR 122. *ā b c d e f g*

ā: 代表范围, 可选代码为N;

b: 代表认证, 可选代码为A、C;

c: 代表版本, 可选代码为X;

d: 代表SIL认证, 可选代码为X、S;

e: 代表外壳/保护, 可选代码为K;

f: 代表端子排/连接, 可选代码为B;

\bar{g} : 代表证书, 可选代码为M。

一、 产品安全使用特殊条件

防爆合格证号后缀“X”代表产品安全使用有特定条件:

1. 产品在爆炸性环境中使用和维护时, 须遵循“严禁带电断开或连接”的原则。
2. 产品必须安装在符合GB3836.1-2010的IP54要求的外壳中, 方可用于爆炸性危险场所; 或设备必须安装在符合GB3836.1-2010的IP4X的外壳中, 且必须提供足够的保护, 防止固体异物或液体进入。
3. 产品只能使用在GB/T16935.1-2008污染等级至少2级以上的环境中。
4. 产品用于 2 区时, 连接端子的拧紧扭矩必须位于 0.4 Nm 和 0.5 Nm 之间。

二、 产品使用注意事项

1. 产品使用环境温度范围为: -20°C~+60°C。
2. 控制器电气参数如下:

功能	电气参数
电源 (端子16/17)	24V~230VAC(-15%~+10%) ; 24V~65VDC(-15%~+10%); Um=253V
信号电路 (端子1/2, 4/5) 每个电路的允许参数 ¹⁾ ([Ex ia Ga] IIC, [Ex iaD]) 允许最大外部参数 ¹⁾ ([Ex ia Ga] IIB, [Ex iaD])	Uo=22.4V, Io=113.5mA, Po=636mW Lo=10mH, Co=0.55uF
允许最大外部参数 ¹⁾ ([Ex ia Ga] IIC, [Ex iaD])	Lo=0.5mH, Co=0.095uF
继电器1 (端子10/11/12) 继电器2 (端子13/14/15) 最大限值	253VAC, 3A 60VDC, 1A
本安与非本安电路之间最高峰值电压	375V


1)表中的最大值也可以作为集中电容和集中电感的最大允许值。

3. 用户不得自行更换该产品的零部件, 应会同产品制造商共同解决运行中出现的故障, 以杜绝损坏现象的发生。
4. 用户在安装、使用和维护产品时, 须同时严格遵守产品使用说明书和下列标准:
GB 3836.13-2013 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
- 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
- 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
- GB 15577-2018 粉尘防爆安全规程

三、制造厂责任

1. 制造厂必须将上述使用注意事项纳入产品的使用说明书中。
2. 制造厂必须严格按照NEPSI认可的文件资料生产。
3. 涉及产品防爆性能和温度的更改和维修，需提交NEPSI重新检验认可。
4. 产品铭牌中应至少包括下列内容：

- a) NEPSI认可标志 
- b) 产品防爆标志
- c) 防爆合格证号
- d) 使用环境温度范围

国家级仪器仪表防爆安全监督检验站

二〇二一年六月二十八日

国家级仪器仪表防爆安全监督检验站

National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation

(GYJ 21.1292X)

(Attachment 1)

Attachment 1 to GYJ 21.1292X

VEGATOR 121series, VEGATOR 122 series controller manufactured by VEGA Grieshaber KG and VEGA Americas Inc. has been certified National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI).

This product accords with following standards:

GB 3836.1-2010 Explosive atmospheres-Part 1: Equipment-General requirements

GB 3836.4-2010 Explosive atmospheres-Part 4: Equipment protection by intrinsic safety "I"

GB 3836.8-2014 Explosive atmospheres-Part 8: Equipment protection by type of protection "n"

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

GB 12476.1-2013 Electrical apparatus for use in the presence of combustible dust – Part 1: General requirements

GB 12476.4-2010 Electrical apparatus for use in the presence of combustible dust – Part 4: Protection by intrinsic safety "ID"

The Ex marking is Ex ic nA nC [ia Ga] IIC T4 Gc, Ex ic nA nC [iaD] IIC T4 Gc or [Ex ia Ga] IIC, [Ex iaD]. The certificate number is GYJ 21.1292X.

Type designation:

VEGATOR 121. *abcdefg*

a denotes Scope: N;

b denotes Approval: A, C ;

c denotes Version: X, S ;

d denotes SIL qualification: X, S ;

e denotes Housing/Protection: K ;

f denotes Terminal blocks/ Connection: B;

g denotes Certificates: M.

VEGATOR 122. *abcdefg*

a denotes Scope: N;

b denotes Approval: A, C ;

c denotes Version: X;

d denotes SIL qualification: X, S ;

e denotes Housing/Protection: K ;

f denotes Terminal blocks/ Connection: B;

g denotes Certificates: M.

1. Special condition for safe use

Symbol "X" denotes special condition for safe use:

1.1 For use and maintenance in explosive atmosphere, observe the warning "DO NOT CONNECT OR DISCONNECT WHEN ENERGIZED".

1.2 Installation of the device in a protective housing IP54 in accordance with GB3836.1-2010 is required; Or Installation of the device in a protective housing IP44 in accordance with GB3836.1-2010 is required, the equipment may exclusively be mounted in locations providing adequate protection against the entry of solid foreign objects or liquids.

1.3 The product shall only be used in an area of minimum pollution degree 2 or better, as defined in GB/T16935.1-2008.

1.4 The torque for terminal blocks shall be 0.4Nm~0.5 Nm,when equipment is used in zone 2.

2. Condition for safe use

2.1 Ambient temperature range: (-20~+60) °C.

2.2 Electrical data and intrinsic safety data of controller:

Function	Electrical data
Power supply(terminals 16/17)	24V~230VAC(-15%~+10%) ; 24V~65VDC(-15%~+10%); Um=253V
Signal circuits (terminals 1/2, 4/5) Maximum values per circuit ¹⁾ ([Ex ia Ga] IIC, [Ex iaD])	Uo=22.4V, Io=113.5mA, Po=636mW
Permissible external parameter ¹⁾ ([Ex ia Ga] IIB, [Ex iaD])	Lo=10mH, Co=0.55uF
Permissible external parameter ¹⁾ ([Ex ia Ga] IIC, [Ex iaD])	Lo=0.5mH, Co=0.095uF
Relay 1 (Terminals10/11/12) Relay 2 (Terminals13/14/15) Maximum values	253VAC, 3A 60VDC, 1A
Maximum voltage between intrinsic safety circuits and non-intrinsic safety circuits	375V
1) The maximum values of the tables are also allowed to be used up to the permissible limits as concentrated capacitances and as concentrated inductances	

2.3 The user shall not change the configuration in order to maintain/ensure the explosion protection performance of the equipment.

2.4 For installation, use and maintenance of the product, the end user shall observe the instruction manual and the following standards:

GB 3836.13-2013 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 3836.20-2010 Explosive atmospheres-Part 20: Equipment with equipment protection level (EPL) Ga

GB 50257:2014 Code for construction and acceptance of electric equipment on fire and explosion hazard electrical equipment installation engineering

GB 15577-2018 Safety regulations for dust explosion prevention and protection

3. Manufacturer's Responsibility

3.1 Special condition for safe use and condition for safe use specified above should be included in the instruction manual.

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

3.3 Any modification with influence on the type of protection should be submitted to NEPSI before application.

3.4 Following items should be added to the nameplate

- a) NEPSI logo 
- b) Ex marking
- c) Number of certificate
- d) Ambient temperature range

**National Supervision and Inspection Center
for Explosion Protection and Safety of Instrumentation
June 28, 2021**

