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# 防爆合格证

证号: GYJ21.3379X

制造商 VEGA Grieshaber KG

(地址: Am Hohenstein 113, Schiltach, Germany)

产品名称 振动式限位开关

型号规格 VEGA VIB VB60 系列

防爆标志 Ex db IIC T1...T6 Gb  
Ex db IIC T1...T6 Ga/Gb

产品标准 /

图样编号 GE2014

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 3836.2-2021, GB3836.20-2010

特颁发此证。

本证书有效期: 2021年11月01日至2026年10月31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。
5. 本证书同时适用于 VEGA Americas Inc. (3877 Mason Research Parkway, Mason, Ohio, 45036, USA) 组装生产的相同型号产品。
6. [更改 1] (防爆标志、防爆标准、美国工厂地址变更) 2023年6月15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十一月一日

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. GYJ21.3379X

<b>Manufacturer</b>	VEGA Grieshaber KG (Address: Am Hohenstein 113, Schiltach, Germany)
<b>Product</b>	Vibration limit switch
<b>Model</b>	VEGAVIB VB60 series
<b>Ex marking</b>	Ex db IIC T1...T6 Gb Ex db IIC T1...T6 Ga/Gb
<b>Product standard</b>	/
<b>Drawing number</b>	GE2014

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

GB/T 3836.1-2021,GB/T 3836.2-2021,GB3836.20-2010

Valid until: 2026.10.31

**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.
- 5.This certificate also cover the product with the same type that manufactured by VEGA Americas Inc. (3877 Mason Research Parkway, Mason, Ohio, 45036, USA) .
- 6.[Variation I] (modify the standards , Ex-marking and factory address in America) issued on 2023.06.15.



**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 2021.11.01

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

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(GYJ21.3379X)

(Attachment II)

## GYJ21.3379X防爆合格证附件 II

由 VEGA Grieshaber KG 和 VEGA Americas Inc.生产的 VEGAIB VB60 系列振动式限位开关, 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 3836.2-2021 爆炸性环境 第2部分: 由隔爆外壳“d”保护的的设备

GB 3836.20-2010 爆炸性环境 第20部分: 设备保护等级 (EPL) 为Ga级的设备

产品防爆标志: Ex db IIC T1...T6 Gb , Ex db IIC T1...T6 Ga/Gb

防爆合格证号GYJ21.3379X。

产品具体认可型号为:

VEGAIB VB6a**(b)**.Lc **d e f g h i j**

**a** 代表产品类型, 可为 1 (短款) 或 3 (长款);

**b** 代表仅供内部使用的附加字符的占位符, 与防爆无关项;

**c** 代表应用或组合应用的区域, 与防爆无关项;

**d** 代表选型/过程温度, 可为 A(标准/-50~+150℃)、B(带适配器/-50~+250℃)、C(水中固体探测/-50~+150℃)、E(带 Carborcer 涂层; 减少黏附, 无腐蚀/磨损保护/-50~+150℃)、F(带 Carborcer 涂层; 减少黏附, 无腐蚀/磨损保护/-50~+250℃)或 G(水中固体探测, 带 Carborcer 涂层; 减少黏附, 无腐蚀/磨损保护/-50~+150℃);

**ef** 代表过程接口/材质, 与防爆无关项;

**g** 代表电子部件, 可为 C(非接触式开关 20~250VAC/DC)、R(继电器 20~72VDC/20~250VAC (3A) )、T(晶体管 10~55VDC)、Z(两线制 10~36VDC)或 N(NAMUR 信号);

**h** 代表壳体/防护等级, 可为 A(铝制单腔/IP66/IP67) 或\*(其它颜色壳体);

**i** 代表电气接口/电缆夹套/插塞接, 可为 M(M20×1.5/无/无)或 N(1/2 NPT/无/无);

**j** 代表附加配置, 与防爆无关项。

## 一、 产品安全使用特殊条件

产品防爆合格证号后缀“X”代表产品安全使用有特定条件：

1. 涉及隔爆接合面的维修须联络产品制造商。
2. 应采取适当安全措施避免产品裸露非金属部件静电电荷产生引燃危险。
3. 使用环境温度：-40℃~+70℃。

## 二、 产品使用注意事

1. 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。

2. 产品不同型号时，电气参数不同，如下：

**VEGAVIB VB6a(b).Lc d e f C h i j:**

供电电压（端子1, 2）：20~253VAC, 50/60Hz 或20~253VDC, 最大1W

Um=253VAC; 输出：非接触式开关；自用电流：小于5mA; 负载电流：10~400mA。

**VEGAVIB VB6a(b).Lc d e f R h i j:**

供电电压（端子1, 2）：20~253VAC, 50/60Hz 或20~72VDC, Um=253VAC; 最大功耗：1~8VA, 1.6W; 继电器回路最大值：253VAC, 3A, 500VA（触电阻1, 端子3, 4, 5）、253VAC, 1A, 41W（触电阻2, 端子6, 7, 8）。

**VEGAVIB VB6a(b).Lc d e f T h i j:**

供电电压（端子1, 4）：10~55VDC, Um=253VAC; 最大功耗：0.5W; 最大负载电流：400mA, 55VDC。

**VEGAVIB VB6a(b).Lc d e f Z h i j:**

电源和信号回路端子1, 2: Ui=12~36VDC, Um=253V。

**VEGAVIB VB6a(b).Lc d e f N h i j:**

电源和信号回路端子1, 2: Ui=4~12.5VDC, Um=253V。

3. 环境温度、介质温度与温度组别的关系：

温度组别	环境温度	介质温度	
		不带温度适配器	带温度适配器
T6	-40℃~+70℃	-50℃~+80℃	-50℃~+80℃
T5	-40℃~+70℃	-50℃~+95℃	-50℃~+95℃
T4	-40℃~+70℃	-50℃~+130℃	-50℃~+130℃
T3	-40℃~+70℃	-50℃~+150℃	-50℃~+195℃
T2, T1*	-40℃~+70℃	-50℃~+150℃	-50℃~+250℃

\*在150℃或更高温度时只能带温度适配器。

4. 产品外壳设有接地端子，用户在安装使用时应可靠接地。
5. 产品在现场使用，维护时必须遵守“断电源后开盖”的原则。
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 3836.16-2022“爆炸性环境 第16部分：电气装置的检查和维修”、GB50257-2014“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”。

### 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. 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) 使用环境温度范围等

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

二〇二三年六月十五日

注：本附件II代替附件I



## Attachment II to GYJ21.3379X

Vibration limit switch types VEGAVIB VB60 series manufactured by VEGA Grieshaber KG and VEGA Americas Inc. has been certified, this product accords with following standards:

GB/T 3836.1-2021 Explosive atmospheres-Part 1: Equipment-General Requirements

GB/T 3836.2-2021 Explosive atmospheres-Part 2: Equipment protection by flameproof enclosures "d"

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

The Ex marking is Ex db IIC T1...T6 Gb , Ex db IIC T1...T6 Ga/Gb

The certificate number is GYJ21.3379X.

Type designation:

VEGAVIB VB6**a**(**b**).L**c****d****e****f****g****h****i****j**

**a** denotes product type, can be 1 or 3;

**b** denotes optional version differentiation, not relevant for Ex approval;

**c** denotes area of application or combination of areas, not relevant for Ex approval;

**d** denotes design/process temperature range, can be A, B, C, E, F or G;

**ef** denotes process connection/material, not relevant for Ex approval;

**g** denotes electronics system, can be C, R, T, Z or N;

**h** denotes enclosure/protection, can be A or \*;

**i** denotes cable gland/screwed cable gland/plug connection, can be M or N;

**j** denotes optional equipment, not relevant for Ex approval.

### 1. Special condition for safe use

Symbol "X" denotes special condition for safe use:

1.1 Repairs on the flameproof joints may only be made in accordance with the manufacturer's strural specifications.

1.2 Appropriate safety measures should be taken to avoid the risk of ignition caused by electrostatic charges on exposed non-metallic parts.

1.3 Ambient temperature: -40℃~+70℃

### 2. Condition for safe use

2.1 The user shall not replace the parts of the product by himself. The user shall work with the product manufacturer to solve the failure during operation to prevent the occurrence of



damage.

2.2 For different types of products, the electrical parameters are different, as follows:

VEGAVIB VB6a(b).Lc d e f C h i j:

Supply voltage(terminals 1,2): 20~253VAC,50/60Hz or 20~253VDC,max 1W,

Um=253VAC; output: contactless switch; current: <5mA; load current: 10~400mA.

VEGAVIB VB6a(b).Lc d e f R h i j:

Supply voltage(terminals 1,2): 20~253VAC,50/60Hz or 20~72VDC, Um=253VAC;

power input: 1~8VA, max.1.6W; reply circuit max.values: 253VAC, 3A, 500VA,

(contact assembly 1,terminals 3,4,5) , 253VDC , 1A, 41W (contact assembly

2,terminals 6,7,8) .

VEGAVIB VB6a(b).Lc d e f T h i j:

Supply voltage(terminals 1,4): 10~55VDC, Um=253VAC; power input: max.0.5W;

load current,potential-free transistor output(terminals 2,3): max. 400mA and 55VDC.

VEGAVIB VB6a(b).Lc d e f Z h i j:

Supply voltage(terminals 1+,-):Ui=12~36VDC, Um=253VAC.

VEGAVIB VB6a(b).Lc d e f N h i j:

Supply voltage(terminals 1+,-):Ui=4~12.5VDC, Um=253VAC,

2.3 The relationship between ambient temperature, medium temperature and temperature class:

Temperature class	Ambient temperature	Medium temperature	
		Without adapter	With adapter
T6	-40℃~+70℃	-50℃~+80℃	-50℃~+80℃
T5	-40℃~+70℃	-50℃~+95℃	-50℃~+95℃
T4	-40℃~+70℃	-50℃~+130℃	-50℃~+130℃
T3	-40℃~+70℃	-50℃~+150℃	-50℃~+195℃
T2,T1*	-40℃~+70℃	-50℃~+150℃	-50℃~+250℃

\*At 150℃ and higher only with temperature adapter.

2.4 The product should be reliably grounded when installed and used.

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

2.6 During the installation, using and maintenance, the user shall folloing the instruction and following standards:

GB/T3836.13-2021 Explosive atmospheres-Part 13: Equipment repair, overhaul and reclamation

GB/T3836.15-2017 Explosive atmospheres-Part 15: Electrical installations design, selection and erection

GB/T3836.16-2022 Explosive atmospheres-Part 16: Electrical installations inspection and maintenance

GB50257-2014 Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering.

### 3. Manufacturer's Responsibility

3.1 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 Following items should be added to the nameplate

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

Shanghai Inspection and Testing Institute of  
Instruments and Automation Systems Co., Ltd.  
National Supervision and Inspection Center for  
Explosion Protection and Safety of Instrumentation  
Jun. 15th, 2023

Note: This annex II replaces Annex I