



SITIiAS
Worldwide Access

防爆合格证

证 号: GYJ22.1764X

制 造 商 VEGA Grieshaber KG

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

产 品 名 称 振动式限位开关

型 号 规 格 VEGASWING 61/63 系列

防 爆 标 志 Ex ia IIC T1...T6 Ga, Ga/Gb, Gb

产 品 标 准 /

图 样 编 号 GE1625~GE1628

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: 2022年03月16日至2027年03月15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. 本安电气参数见本证书附件。
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] 变更标准和防爆标志, 2023年6月25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
颁发日期二〇二二年三月十六日

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





SITIiAS
Worldwide Access

EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert No. GYJ22.1764X

Manufacturer	VEGA Grieshaber KG (Address: Am Hohenstein 113, 77761 Schiltach, Germany)
Product	Vibration Level Switch
Model	VEGASWING 61/63 Series
Ex marking	Ex ia IIC T1...T6 Ga, Ga/Gb, Gb
Product standard	/
Drawing number	GE1625~GE1628

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

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

Valid until: 2027.03.15

Remarks

- 1.Conditions for safe use are specified in the attachment to this certificate.
- 2.Symbol "X" placed after the certification number denotes specific conditions of use, which are specified in the attachment to this certificate.
- 3.Model designation is specified in the attachment to this certificate.
- 4.Intrinsic safety parameters specified in the attachment 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 Ex standards and Ex marking issued on 2023.06.25.



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



GYJ22.1764X 防爆合格证附件 II

由VEGA Grieshaber KG和VEGA Americas Inc生产的VEGASWING 61/63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 3836.4-2021 爆炸性环境 第4部分: 由本质安全型“i”保护的设

产品防爆标志Ex ia IIC T1...T6 Ga, Ga/Gb, Gb. 防爆合格证号为GYJ22.1764X。

产品具体认可型号为:

SWING SG61(*). **a b cde f g h i j**

SWING SG63(*). **a b cde f g h i j**

*代表仅供内部使用的附加字符的占位符, 与防爆无关

a : 代表防爆型式, 可选代码为C;

b : 代表许可范围, 例如USA、中国, 与防爆无关;

cde : 代表过程接口/材料, 代表符合工业标准的过过程接口, 与防爆无关;

f : 代表中间件/过程温度, 可选代码为X、H、T、G、D;

g : 代表壳体/防护等级/电缆螺纹接头, 可选代码为P、N、M、7、U、4、3、V、A、5、8、9或其他;

h : 代表电子部件, 可选代码为Z、N、W;

i : 代表开关打开位置, 与防爆无关;

j : 代表测量点标识牌, 与防爆无关。

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殊条件:

1. 应采取避免产品裸露非金属材料(包括非导电涂层)静电电荷产生引燃危险。
2. 铝合金外壳用于要求EPL Ga的场所时, 应采取防止由于冲击或摩擦引起的点燃危险。
3. 产品用于要求EPL Ga或EPL Ga/Gb的场所时, 应采取等电位连接(接触电阻 $\leq 1M\Omega$)。
4. 产品的温度组别、使用环境温度(电子外壳)和介质温度范围(传感器)的关系如下:
EPL Ga应用

温度组别	介质温度范围 (传感器)	使用环境温度 (电子外壳)
T6	-20℃~+60℃	-20℃~+60℃
T5	-20℃~+60℃	-20℃~+60℃
T4~T1	-20℃~+60℃	-20℃~+60℃

介质压力0.8bar~1.1bar

EPL Gb应用

温度组别	介质温度范围 (传感器)	使用环境温度 (电子外壳)
T6	-20℃~+85℃	-40℃~+60℃
T5	-20℃~+100℃	-40℃~+75℃
T4	-20℃~+135℃	-40℃~+90℃
*T3	-20℃~+200℃	-40℃~+90℃
*T2, T1	-20℃~+250℃	-40℃~+90℃

*介质温度超过150℃时产品带温度适配器

介质压力0.8bar~1.1bar; 温度组别为T1~T4时, 当介质温度范围在-20℃~+60℃的情况下, 介质压力可为0~6bar

VEGASWING63.C*****Z* (带有止动螺纹接头 ARV-SG63.2** 和止动螺纹接头 ARV-SG63.3**) 可以在工作如下条件:

EPL Ga/Gb应用

温度组别	介质温度范围 (传感器)	使用环境温度 (电子外壳)
T4, T3, T2, T1	-20℃~+60℃	-40℃~+90℃

EPL Gb应用

温度组别	介质温度范围 (传感器)	使用环境温度 (电子外壳)
T6	-20℃~+85℃	-40℃~+60℃
T5	-20℃~+100℃	-40℃~+75℃
T4	-20℃~+135℃	-40℃~+90℃
*T3	-20℃~+200℃	-40℃~+90℃
*T2, T1	-20℃~+250℃	-40℃~+90℃

*介质温度超过150℃时和/或低于-40℃, 产品带温度适配器

二、产品安装使用注意事项

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. VEGASWING63.C*****Z*（带有止动螺纹接头 ARV-SG63.2** 和止动螺纹接头 ARV-SG63.3**）可以在工作如下条件：

温度组别	探测器上温度	电子部件上环境温度
T4,T3,T2,T1	-20℃~+60℃	-40℃~+90℃

对于需要EPL Ga/Gb设备的应用，介质的过程压力范围必须为0~600kpa (6bar)。上述条件不会在测量传感器上出现。测量传感器(即使发生故障)不会有自发热，工厂所有者应确认所用材料的压力/温度的安全工作。

3. 如下测量金属测量点标牌 (未接地) 的电容：

45 x 23 mm (标准)	21 pF
100 x 30 mm	52 pF
73 x 47 mm	61 pF

4. 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. 产品的本安参数如下：

电子插件	最高输入电压 U_i (V)	最大输入电流 I_i (mA)	最大输入功率 P_i (mW)	最大内部等效参数	
				Ci(nF)	Li(μ H)
Z	24	131	786	0	0
	29	116	841	0	0
N/W	20	103	516	2.2	0

6. 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。
7. 用户不得自行更换该产品的零部件，应会同产品制造厂共同解决运行中出现的故障，以杜绝损坏现象的发生。
8. 产品的安装、使用和维护应同时遵守产品使用说明书、及下列相关标准、规范的要求：
 - 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

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中。
2. 制造厂必须严格按照NEPSI认可的文件资料进行生产。



注：本证书附件II替换原附件I。



Attachment II to GYJ22.1764X
(translation)

Vibrating level switch VEGASWING SG61/63 series manufactured by VEGA Grieshaber KG and VEGA Americas Inc. has been inspected to accord 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 IIC T1...T6 Ga, Ga/Gb, Gb.

The certificate number is GYJ22.1764X.

Type approved in this certificate is shown as below:

SWING SG61(*). *a b cde f g h i j*

SWING SG63(*). *a b cde f g h i j*

a denotes type of explosion Protection: C;

b denotes area of application or combination of areas, for example: China, USA ,not effect Ex performance;

cde denotes process interface/material, represents the process interface conforming to industry standard, not effect Ex performance;

f denotes optional adapter / maximum process temperature: X、H、T、G、D;

g denotes enclosure/protection level/ cable gland: P、N、M、7、U、4、3、V、A、5、8、9 or others;

h denotes electronic components: Z、N、W;

i denotes switch point, not effect Ex performance;

j denotes optional measurement loop identification label, not effect Ex performance.

1. Special condition for safe use

Symbol "X" denotes special condition for safe use:

1.1 For EPL Ga applications, at the metallic parts of the products made of light metal there is a danger of ignition by impact or friction. Observe manual of the manufacturer.

1.2 At the plastic parts of the products, there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.

1.3 For EPL Ga or EPL Gb applications, the product shall be connected to the equipotential bonding conductor (contact resistance $\leq 1M\Omega$) in order to prevent metal elements from being charged electrostatically.

1.4 The relationship between temperature class, ambient temperature (electronic housing) and medium temperature (sensor) is shown as following:

EPL Ga equipment

Temperature class	Medium temperature (sensor)	Ambient temperature (electronic housing)
T6	-20℃ ~ + 60℃	-20℃ ~ + 60℃
T5	-20℃ ~ + 60℃	-20℃ ~ + 60℃
T4~T1	-20℃ ~ + 60℃	-20℃ ~ + 60℃

Medium pressure 0.8bar ~ 1.1bar.

EPL Gb equipment

Temperature class	Medium temperature (sensor)	Ambient temperature (electronic housing)
T6	-20℃ ~ + 85℃	-40℃ ~ + 60℃
T5	-20℃ ~ + 100℃	-40℃ ~ + 75℃
T4	-20℃ ~ + 135℃	-40℃ ~ + 90℃
*T3	-20℃ ~ + 200℃	-40℃ ~ + 90℃
*T2,T1	-20℃ ~ + 250℃	-40℃ ~ + 90℃

*When the medium temperature exceeds 150 ℃, the product is equipped with temperature adapter;

Medium pressure: 0.8bar ~ 1.1bar; When the temperature group is T1 ~ T4, when the medium temperature range is - 20 ℃ ~ + 60 ℃, the medium pressure can be 0 ~ 6bar.

VEGASWING63. C ***** Z * (with stop nipple arv-sg63.2 ** and stop nipple arv-sg63.3 *) can be operated under the following conditions:

EPL Ga /Gb equipment

Temperature class	Medium temperature (sensor)	Ambient temperature (electronic housing)
T1~T4	-20℃ ~ + 60℃	-40℃ ~ + 90℃

EPL Gb equipment

Temperature class	Medium temperature (sensor)	Ambient temperature (electronic housing)
T6	-20℃ ~ + 85℃	-40℃ ~ + 60℃
T5	-20℃ ~ + 100℃	-40℃ ~ + 75℃
T4	-20℃ ~ + 135℃	-40℃ ~ + 90℃
*T3	-20℃ ~ + 200℃	-40℃ ~ + 90℃
*T2,T1	-20℃ ~ + 250℃	-40℃ ~ + 90℃

*When the medium temperature exceeds 150 ℃ and / or is lower than - 40 ℃, the product is equipped with temperature adapter.

2. Condition for safe use

- 2.1 The product shell is equipped with grounding terminal, and the user shall be reliably grounded during installation and use.
- 2.2 VEGASWING63. C ***** Z * (with stop nipple arv-sg63.2 * * and stop nipple arv-sg63.3 * *) can be operated under the following conditions:

Temperature class	Medium temperature (sensor)	Ambient temperature (electronic housing)
T1~T4	-20℃~+ 60℃	-40℃~+ 90℃

For applications requiring EPL GA / GB equipment, the process pressure range of the medium must be 0 ~ 600kpa (6bar). The above conditions will not appear on the measuring sensor. The measuring sensor (even in case of failure) will not have self heating, and the plant owner shall confirm the safe operation of the pressure / temperature of the materials used.

- 2.3 Measure the capacitance of the metal measuring point label (ungrounded) as follows:

45 x 23 mm	21 pF
100 x 30 mm	52 pF
73 x 47 mm	61 F

- 2.4 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.

- 2.5 The intrinsic safety parameters of the product are as follows:

electronic components	Maximum input voltage Ui (V)	Maximum input current Ii (mA)	Maximum input power Pi (mW)	Maximum internal equivalent parameter	
				Ci(nF)	Li(μH)
Z	24	131	786	0	0
	29	116	841	0	0
NW	20	103	516	2.2	0

- 2.6 The connecting cable between the product and associated equipment shall be shielded cable with insulating sheath, and its shielding layer shall be grounded
- 2.7 The user shall not change the configuration in order to maintain/ensure the explosion protection performance of the equipment. Any change may impair safety.
- 2.8 For installation, use and maintenance of the product, the end user shall observe the instruction manual and the following standards:

GB/T 3836.13-2021 Electrical 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 50257:2014 Code for construction and acceptance of electric equipment on fire and explosion hazard electrical equipment installation engineering

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.

Shanghai Inspection and Testing Institute of
Instruments and Automation Systems
National Supervision and Inspection
Center for Explosion Protection
and Safety of Instrumentation

June 25th, 2023

Note: Attachment I is replaced by this document.

