



防爆合格证

证号: GYJ18.1495X

由 Longvale Limited 制造的产品:
(地址: Lancaster Park, Needwood, Burton-upon-Trent, Staffordshire, DE13 9PD, United Kingdom)
名称 接近开关
型号规格 见附件
防爆标志 Ex ia IIC T3/T4/T6 Ga, Ex iaD 20 T75/T85/T135/T140/T185/T200

产品标准 /
图样编号 FA-53, FA-54, FA61, FA05, FA06, FA07, FA08, FA09, FA15, FA17, FA38, FA38A, FA39A, FA40A, FA41A, FA42A, FA43, FA44, FA45A, FA46A, FA47, FA49, FA-50, FA55, FA56, FA57, FA59, GA-004, 50-000G, A-020, GA-033, GA-037

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 12476.1-2013、GB 12476.4-2010 标准,

特颁发此证。

本证书有效期: 2018 年 12 月 7 日至 2023 年 12 月 6 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。

站长

国家级仪器仪表防爆安全监督检验站

颁发日期二〇一八年十二月七日

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.GYJ18.1495X

This is to certify that the product

Euroswitch

manufactured by Longvale Limited

(Address:Lancaster Park, Needwood, Burton-upon-Trent, Staffordshire, DE13 9PD, United Kingdom)

which model is Refer to attachment(s)

**Ex marking Ex ia IIC T3/T4/T6 Ga, Ex iaD
20 T75/T85/T135/T140/T185/T200**

product standard /

**drawing number FA-53, FA-54, FA61, FA05, FA06, FA07, FA08, FA09,
FA15, FA17, FA38, FA38A, FA39A, FA40A, FA41A,
FA42A, FA43, FA44, FA45A, FA46A, FA47, FA49,
FA-50, FA55, FA56, FA57, FA59, GA-004, 50-000G,
A-020, GA-033, GA-037**

**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 12476.1-2013,GB
12476.4-2010**

This Approval shall remain in force until 2023.12.06

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

Director

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

Issued Date 2018.12.07



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

(GYJ18.1495X)

(Attachment I)

GYJ18.1495X防爆合格证附件 I

由Longvale Limited生产的ES系列, FS系列, VIP系列与ESI系列接近开关, 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”保护的设备

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

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 ia II C T3/T4/T6 Ga, Ex iaD 20 T75/T85/T135/T140/T185/T200, 金属外壳产品外壳防护等级IP66/67, 非金属外壳产品外壳防护等级IP54, 防爆合格证号为GYJ18.1495X。

本证书认可的产品为:

ES *a b c d - e*, 其中:

a 可选代码为: 1, 2, 3, 4, 5, 6, 2S, 44, BZ18, SS, HLS-25i或HLS210i

b 可选代码为: 2, E或F-Z

c 可选代码为: 1或2

d 可选代码为: 1, 1L, 2或4L

e 可选代码为: A~F, FP, LFM, 5K, 10K, SE, W, WL, WLR, WLRT, (M), (N), (3N), V2-3, V2-4, V5-3, V5-4, V3-3或V3-4

FS *a b c d - e*, 其中:

a 可选代码为: A~F, H~R或CYL

b 可选代码为: 2, E或F-Z

c 可选代码为: 1或2

d 可选代码为: 1, 1L, 2或4L

e 可选代码为: A, B, D, E, FP, LFM, 5K, 10K, SE, W, WL, WLR, WLRT, (M), (N), (3N), V2-3, V2-4, V5-3, V5-4, V3-3或V3-4

a - VIP - *b*, 其中:

a 可选代码为: MI或MS

b 可选代码为: 4或1

ESI - VDHA - *a*, 其中:

a 可选代码为: 1035, 700, 450

一、 产品安全使用特定条件

证书编号后辍“X”表明产品具有安全使用特殊条件:

1. 应采取措施避免产品裸露非金属部件静电电荷产生引燃危险。
2. ESI - VDHA - a 型产品外壳由钛合金制成, 用户须采取有效措施防止产品外壳由于冲击或摩擦引起的点燃危险。
3. 安装与使用时须注意, 产品未接地的金属外壳和非金属外壳的金属部件有积聚危险电荷风险。

二、 产品使用注意事项

1. 金属外壳产品 (除 LFM 与插接件以外) 本安参数为:

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	1.3	0 或 120pF/m 的永久 电缆	0 或 0.7μ H/m 的 永久电缆

2. 金属外壳产品 (除 LFM 与插接件型以外) 防爆标志与使用环境温度关系如下表:

可接线产品 (仅IP66/67金属外壳)

Ex ia IIC T4 Ga (-60°C≤Ta≤+125°C)	Ex iaD 20 T135 (-60°C≤Ta≤+125°C)
Ex ia IIC T6 Ga (-60°C≤Ta≤+80°C)	Ex iaD 20 T85 (-60°C≤Ta≤+80°C)

不可接线, 装配有PVC永久电缆的产品

Ex ia IIC T6 Ga (-20°C≤Ta≤+80°C)	Ex iaD 20 T85 (-20°C≤Ta≤+80°C)
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不可接线, 装配有聚烯烃永久电缆的产品

Ex ia IIC T4 Ga (-60°C≤Ta≤+125°C)	Ex iaD 20 T135 (-60°C≤Ta≤+125°C)
Ex ia IIC T6 Ga (-60°C≤Ta≤+80°C)	Ex iaD 20 T85 (-60°C≤Ta≤+80°C)

不可接线, 装配有特氟龙永久电缆的产品

Ex ia IIC T3 Ga (-20°C≤Ta≤+175°C)	Ex iaD 20 T200 (-20°C≤Ta≤+175°C)
Ex ia IIC T4 Ga (-20°C≤Ta≤+125°C)	Ex iaD 20 T135 (-20°C≤Ta≤+120°C)
Ex ia IIC T6 Ga (-20°C≤Ta≤+80°C)	Ex iaD 20 T85 (-20°C≤Ta≤+80°C)

3. 带有 LFM 的金属外壳的产品 (除插接件以外) 本安参数为:

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	0.65	0 或 120pF/m 的永久 电缆	0 或 0.7μH/m 的 永久电缆

4. 带有 LFM 的金属外壳的产品 (除插接件以外) 防爆标志与使用环境温度关系如下:

可接线产品 (仅IP66/67金属外壳)

Ex ia IIC T4 Ga (-60°C≤Ta≤+105°C)	Ex iaD 20 T185 (-60°C≤Ta≤+125°C)
Ex ia IIC T6 Ga (-60°C≤Ta≤+55°C)	Ex iaD 20 T140 (-60°C≤Ta≤+80°C)

不可接线，装配有PVC永久电缆的产品

Ex ia IIC T6 Ga (-20°C≤Ta≤+55°C)	Ex iaD 20 T140 (-20°C≤Ta≤+80°C)
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不可接线，装配有聚烯烃永久电缆的产品

Ex ia IIC T4 Ga (-60°C≤Ta≤+105°C)	Ex iaD 20 T185 (-60°C≤Ta≤+125°C)
Ex ia IIC T6 Ga (-60°C≤Ta≤+55°C)	Ex iaD 20 T140 (-60°C≤Ta≤+80°C)

5. 含插接件的产品本安参数为：

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	0.65	0	0

6. 含插接件的产品防爆标志与使用环境温度关系如下：

含有插接件的产品

Ex ia IIC T6 Ga (-20°C≤Ta≤+80°C)	Ex iaD 20 T135 (-20°C≤Ta≤+70°C)
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含有插接件及LFM的产品

Ex ia IIC T6 Ga (-20°C≤Ta≤+55°C)	Ex iaD 20 T135 (-20°C≤Ta≤+70°C)
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7. 非金属外壳的产品本安参数如下：

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	0.65	0 或 120pF/m 的永久 电缆	0 或 0.7μH/m 的 永久电缆

8. 非金属外壳的产品防爆标志与使用环境温度关系如下：

不可接线，装配有PVC永久电缆的产品

Ex ia IIC T6 Ga (-20°C≤Ta≤+80°C)	Ex iaD 20 T75 (-20°C≤Ta≤+70°C)
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不可接线，装配有聚烯烃永久电缆的产品

Ex ia IIC T4 Ga (-60°C≤Ta≤+125°C)	Ex iaD 20 T75 (-20°C≤Ta≤+70°C)
Ex ia IIC T6 Ga (-60°C≤Ta≤+80°C)	

9. 产品内部电缆应符合GB/T 3836.18-2017标准第9.5.3条要求的，固定并能有效放置损坏的B型电缆。

10. 用于从产品外部与产品相连的电缆，应符合GB/T 3836.18-2017标准第9.5.2条或第9.5.3条要求的A型或B型电缆。

11. 在粉尘环境中安装和使用时，须配用具有相应防爆级别的接线盒。

12. 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。

13. 用户在安装、使用和维护防爆终端盒时，须同时严格遵守产品使用说明书和下列标准：

GB3836.13-2013 爆炸性环境 第13部分：设备的修理、检修、修复和改造

GB/T3836.15-2017 爆炸性环境 第15部分：电气装置的设计、选型和安装

GB/T3836.16-2017 爆炸性环境 第16部分：电气装置的检查与维护

GB/T3836.18-2017 爆炸性环境 第18部分：本质安全系统

GB50257-2014 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. 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

二〇一八年十二月七日



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

(GYJ18.1495X)

(Attachment I)

Attachment I to GYJ18.1495X

Euroswitch types ES series, FS series, VIP series and ESI series manufactured by Longvale Limited has been certified by 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 3836.20-2010 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 ia IIC T3/T4/T6 Ga, Ex iaD 20 T75/T85/T135/T140/T185/T200, the IP degree of metallic enclosure is IP66/67, the IP degree of non-metallic enclosure is IP54, the certificate number is GYJ18.1495X.

Type designation:

ES *a b c d - e*:

a: 1, 2, 3, 4, 5, 6, 2S, 44, BZ18, SS, HLS-25i or HLS210i

b: 2, E or F-Z

c: 1 or 2

d: 1, 1L, 2 or 4L

e: A~F, FP, LFM, 5K, 10K, SE, W, WL, WLR, WLRT, (M), (N), (3N), V2-3, V2-4, V5-3, V5-4, V3-3 or V3-4

FS *a b c d - e*:

a: A~F, H~R or CYL

b: 2, E or F-Z

c: 1 or 2

d: 1, 1L, 2 or 4L

e: A, B, D, E, FP, LFM, 5K, 10K, SE, W, WL, WLR, WLRT, (M), (N), (3N), V2-3, V2-4, V5-3, V5-4, V3-3 or V3-4

a - VIP - b:

a: MI or MS

b: 4 or 1

ESI - VDHA - a:

a: 1035, 700 or 450

1. Special condition for safe use

Suffix "X" denotes special condition for safe use:

- 1.1 Non-metallic proximity sensors may pose an electrostatic risk. This should be taken into account during installation.
- 1.2 Metallic proximity sensor or metallic parts of non-metallic proximity sensors may pose an electrostatic risk if not earthed. This should be taken into account during installation.
- 1.3 The VDHA type Euroswitch bodies may be manufactured from Titanium and so must be mounted in such a way as to avoid impact or friction.

2. Condition for safe use

- 2.1 Intrinsic safety parameters for the Metallic Group II and IIIC versions(excluding LFM and plug version) as following:

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	1.3	0 or 120pF/m of cable for non-wireable types	0 or 0.7μH/m of cable for non-wireable types

- 2.2 The relation between Ex marking and ambient temperature of Metallic Group II and IIIC versions (excluding LFM and plug version) as following:

The wireable types (metallic IP66/67 enclosures only)

Ex ia IIC T4 Ga (-60°C≤Ta≤+125°C)	Ex iaD 20 T135 (-60°C≤Ta≤+125°C)
Ex ia IIC T6 Ga (-60°C≤Ta≤+80°C)	Ex iaD 20 T85 (-60°C≤Ta≤+80°C)

The non-wireable type with PVC integral cable types

Ex ia IIC T6 Ga (-20°C≤Ta≤+80°C)	Ex iaD 20 T85 (-20°C≤Ta≤+80°C)
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The non-wireable types with Polyolefin integral cable

Ex ia IIC T4 Ga (-60°C≤Ta≤+125°C)	Ex iaD 20 T135 (-60°C≤Ta≤+125°C)
Ex ia IIC T6 Ga (-60°C≤Ta≤+80°C)	Ex iaD 20 T85 (-60°C≤Ta≤+80°C)

The non-wireable types with Teflon integral wiring

Ex ia IIC T3 Ga (-20°C≤Ta≤+175°C)	Ex iaD 20 T200 (-20°C≤Ta≤+175°C)
Ex ia IIC T4 Ga (-20°C≤Ta≤+125°C)	Ex iaD 20 T135 (-20°C≤Ta≤+120°C)

Ex ia IIC T6 Ga ($-20^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$)Ex iaD 20 T85 ($-20^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$)

2.3 Intrinsic safety parameters for the Metallic Group II and IIIC versions (LFM versions only, Excluding Plug Versions) as following:

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	0.65	0 or 120pF/m of cable for non-wireable types	0 or 0.7μH/m of cable for non-wireable types

2.4 The relation between Ex marking and ambient temperature of Metallic Group II and IIIC versions (LFM versions only, Excluding Plug Versions) as following:

The wireable types (metallic IP66/67 enclosures only)

Ex ia IIC T4 Ga ($-60^{\circ}\text{C} \leq T_a \leq +105^{\circ}\text{C}$)	Ex iaD 20 T185 ($-60^{\circ}\text{C} \leq T_a \leq +125^{\circ}\text{C}$)
Ex ia IIC T6 Ga ($-60^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$)	Ex iaD 20 T140 ($-60^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$)

The non-wireable types with PVC integral cable types

Ex ia IIC T6 Ga ($-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$)	Ex iaD 20 T140 ($-20^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$)
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The non-wireable types with Polyolefin integral cable

Ex ia IIC T4 Ga ($-60^{\circ}\text{C} \leq T_a \leq +105^{\circ}\text{C}$)	Ex iaD 20 T185 ($-60^{\circ}\text{C} \leq T_a \leq +125^{\circ}\text{C}$)
Ex ia IIC T6 Ga ($-60^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$)	Ex iaD 20 T140 ($-60^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$)

2.5 Intrinsic safety parameters for the Plug type as following:

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	0.65	0	0

2.6 The relation between Ex marking and ambient temperature of Plug type as following:

The Plug types

Ex ia IIC T6 Ga ($-20^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$)	Ex iaD 20 T135 ($-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$)
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The Plug type LFM versions

Ex ia IIC T6 Ga ($-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$)	Ex iaD 20 T135 ($-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$)
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2.7 Intrinsic safety parameters for non-metallic Group IIC and IIIC as following:

Ui(V)	Ii(mA)	Pi(W)	Ci(pF)	Li(μH)
30	250	0.65	0 or 120pF/m of cable for non-wireable types	0 or 0.7μH/m of cable for non-wireable types

2.8 The relation between Ex marking and ambient temperature of non-metallic products as following:

The non-wireable types with PVC integral cable

Ex ia IIC T6 Ga (-20°C≤Ta≤+80°C)

Ex iaD 20 T75 (-20°C≤Ta≤+70°C)

The non-wireable types with Polyolefin integral cable

Ex ia IIC T4 Ga (-60°C≤Ta≤+125°C)

Ex iaD 20 T75 (-20°C≤Ta≤+70°C)

Ex ia IIC T6 Ga (-60°C≤Ta≤+80°C)

- 2.9 The integral cable shall be fixed and effectively protected against damages as required of a Type B cable as defined in clause 9.5.3 of GB/T 3836.18-2017.
- 2.10 External cabling to the proximity sensors shall use either type A or type B cable as defined in clause 9.5.2 and 9.5.3 of GB/T 3836.18-2017
- 2.11 In order to avoid damage to the product, the user shall not change any parts of the product and the manufacturer shall be consulted when there is any problem during the usage.
- 2.12 Junction boxes used to extend the sensor cabling, that are located in a dust hazardous area must be separately certified and appropriate for use in that hazardous area.
- 2.13 During the installation, using and maintenance, the user shall following the instruction and following standards:
- GB3836.13-2013 Explosive atmospheres-Part 13: Equipment repair, overhaul and reclamation
- GB/T3836.15-2017 Explosive atmospheres-Part 15: Electrical installations design, selection and erection
- GB/T3836.16-2017 Explosive atmospheres-Part 16: Electrical installations inspection and maintenance
- GB/T3836.18-2017 Explosive atmospheres-Part 18: Intrinsically safe electrical systems
- 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 Special 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

3.4.1 NEPSI logo 

3.4.2 Ex marking

3.4.3 Number of certificate

3.4.4 Ambient temperature range

**National Supervision and Inspection Center
for Explosion Protection and Safety of Instrumentation**

December 7th, 2018

