



防爆合格证

证号: GYJ16.1231

由 德国PEPPERL+FUCHS有限公司

制造的产品:

(地址: Lilienthalstrasse 200, 68307 Mannheim, Germany)

名称 隔离式安全栅

型号规格 KFD2-SCD2-Exa.LK 系列、KFD2-CD2-Exa系列

防爆标志 [Ex ia Ga] II C

产品标准 /

图样编号 /

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 标准, 特颁发此证。

本证书有效期: 2016年4月26日至2021年4月25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. 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

颁发日期二〇一六年四月二十六日

本证书仅对与认可文件和样品一致的产品有效。

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EXPLOSION PROTECTION

CERTIFICATE OF CONFORMITY

Cert NO.GYJ16.1231

This is to certify that the product

Isolated Barrier

manufactured by PEPPERL+FUCHS GmbH

(Address:Lilienthalstrasse 200, 68307 Mannheim, Germany)

which model is KFD2-SCD2-Exa.LK Series、 KFD2-CD2-Exa Series

Ex marking [Ex ia Ga] II C

product standard /

drawing number /

has been inspected and certified by NEPSI, and that it conforms to GB 3836.1-2010,GB 3836.4-2010,GB 3836.20-2010

This Approval shall remain in force until 2021.04.25

Remarks 1.Conditions for safe use are specified in the attachment to this certificate.
2.Model designation is specified in the attachment to this certificate.
3.Intrinsic safety parameters specified in the attachment to this certificate.

Director



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

Issued Date 2016.04.26

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

(GYJ16.1231)

(Attachment I)

GYJ16.1231防爆合格证附件 I

德国PEPPERL+FUCHS有限公司生产的KFD2 - SCD2 - Ex1.LK系列和KFD2 - CD2 - Ex1系列隔离式安全栅，经国家级仪器仪表防爆安全监督检验站（NEPSI）检验，符合下列标准规定的要求：

GB3836.1 - 2010 爆炸性环境 第1部分：设备 通用要求

GB3836.4 - 2010 爆炸性环境 第4部分：由本质安全型“i”保护的设备

GB3836.20 - 2010 爆炸性环境 第20部分：设备保护级别（EPL）为Ga级的设备
产品防爆标志为[Ex ia Ga] IIC，防爆合格证号为GYJ16.1231。

一、产品使用注意事项

1. 证书认可的产品型号如下：

KFD2 - SCD2 - Ex1.LK (- Y*)

KFD2 - SCD2 - Ex2.LK (- Y*)

KFD2 - CD2 - Ex1 (- Y*)

KFD2 - CD2 - Ex2 (- Y*)

2. 变压器隔离式安全栅必须安装在安全场所，其使用环境温度范围为-20℃~+60℃。

3. 变压器隔离式安全栅非本安端的最高电压（Um）：250V。

4. 变压器隔离式安全栅的本安端安全参数如下：

| 接线端子 | 最高输出电压 Uo (V) | 最大输出电流 Io (mA) | 最大输出功率 Po (mW) | 最大内部等效参数 | |
|----------------|------------------|-------------------|-------------------|----------|---------|
| | | | | Ci (μ F) | Li (mH) |
| 1 - 2 4 - 5 | 25.2 | 93 | 585 | 0 | 0 |

| 气体组别 | 最大外部参数 | |
|------|----------|---------|
| | Co (μ F) | Lo (mH) |
| IIC | 0.107 | 4.3 |
| IIB | 0.82 | 17.7 |
| IIA | 2.9 | 36 |

注：上述电容和电感数值使用时应注意下列要求：

- (1) 符合下列任何一项条件时，外部最大电容（Co）和外部最大电感（Lo）应为数据表内的数值：
- 外部电路（不包括电缆）的最大内部电容（Ci）小于1%电容（数据表内电容），或
 - 外部电路（不包括电缆）的最大内部电感（Li）小于1%电感（数据表内电感）

- (2) 同时符合下列两项条件时，外部最大电容 (Co) 和外部最大电感 (Lo) 应为数据表内数值的 50%:
- 外部电路 (不包括电缆) 的最大内部电容 (Ci) 大于1%电容 (数据表内电容)，和
 - 外部电路 (不包括电缆) 的最大内部电感 (Li) 大于1%电感 (数据表内电感)
- 其中，外部最大电容Co (包括电缆) 不得大于1μ F (II B) 和600nF (II C)。
5. 产品的安装、使用和维护应同时遵守产品说明书、GB3836.13 - 2013 “爆炸性环境第13部分：设备的修理、检修、修复和改造”、GB3836.15 - 2000 “爆炸性气体环境用电气设备 第15部分：危险场所电气安装（煤矿除外）”、GB3836.16 - 2006 “爆炸性气体环境用电气设备 第16部分：电气装置的检查和维护（煤矿除外）”、GB3836.18 - 2010 “爆炸性环境 第18部分：本质安全系统”和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”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上述系列隔离式安全栅使用说明书。
2. 制造厂必须严格按照NEPSI认可的文件资料生产：

| 图纸代号 | 版本号/签署日期 | 备注 |
|---------------|------------|----|
| 266-036BS-K | 2014.05.12 | - |
| 266-036BS-01J | 2010.09.22 | - |
| 266-036BS-02J | 2011.02.25 | - |
| 266-036BS-03J | 2011.02.25 | - |
| 266-010BS-04E | 2014.03.27 | - |
| 266-036BS-04J | 2010.07.12 | - |
| 266-036BS-05J | 2011.07.19 | - |
| 266-036BS-06J | 2011.02.25 | - |
| 266-036BS-07J | 2011.02.25 | - |
| 266-036BS-10K | 2014.05.12 | - |

3. 产品铭牌中至少应包括下列内容：
 - (1) NEPSI认可标志 (见防爆合格证书)
 - (2) 产品防爆标志
 - (3) 防爆合格证号
 - (4) 电气参数或说明

国家级仪器仪表防爆安全监督检验站

二〇一六年四月二十六日



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

(GYJ16.1231)

(Attachment I)

Attachment I

(Translation)

Isolated Barrier type KFD2-SCD2-Ex1.LK and KFD2-CD2-Ex1, manufactured by PEPPERL+FUCHS GmbH, has been approved by National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI) in accordance with the following standards:

GB3836.1-2010 Electrical atmospheres – Part 1: Equipment – General requirements

GB3836.4-2010 Electrical atmospheres – Part 4: Equipment protection by Intrinsic safety “i”

GB3836.20-2010 Electrical atmospheres – Part 20: Equipment with equipment protection level (EPL) Ga

The isolated barrier is approved with explosion marking of [Ex ia Ga] II C. The certificate number is GYJ16.1231.

1. SPECIAL REQUIREMENTS

1.1 The approved types are shown as below:

KFD2-SCD2-Ex1.LK (-Y*)

KFD2-SCD2-Ex2.LK (-Y*)

KFD2-CD2-Ex1 (-Y*)

KFD2-CD2-Ex2 (-Y*)

1.2 The isolated barrier must be located in a non-hazardous area, the permissible maximum ambient temperature range is -20°C~+60°C.

1.3 Electrical parameters at the terminals for the non-intrinsically safe circuits:

Maximum voltage (Um) : 250V

1.4 Electrical parameters at terminals for the intrinsically safe circuits:

| Terminals | Max.output voltage Uo (V) | Max.output current Io (mA) | Max.output power Po (mW) | Maximum internal parameters | |
|------------|------------------------------|-------------------------------|-----------------------------|-----------------------------|---------|
| | | | | Ci (μF) | Li (mH) |
| 1-2 4-5 | 25.2 | 93 | 585 | 0 | 0 |

| Gas groups | Maximum external parameters | |
|------------|-----------------------------|---------|
| | Co (μF) | Lo (mH) |
| II C | 0.107 | 4.3 |
| II B | 0.82 | 17.7 |
| II A | 2.9 | 36 |

Note: The above parameters apply where:

The maximum values of the external capacitance and the external inductance are listed in the table above if one of the following conditions is met:

- The total Ci of the external circuit (excluding the cable) is < 1% of the capacitance value or
- The total Li of the external circuit (excluding the cable) is < 1% of the inductance value.

The maximum values of the external capacitance and the external inductance shall be reduced to 50% the values listed in the table above when both of the following conditions are met:

- The total Ci of the external circuit (excluding the cable) is > 1% of the capacitance value and
- The total Li of the external circuit (excluding the cable) is > 1% of the inductance value.

Note: the reduced capacitance of the external circuit (including the cable) shall not be greater than 1 μ F for IIB and 600nF for IIC

1.5 During installation, operation and maintenance, users shall comply with the relevant requirements of the product instruction manual, GB3836.13-2013 "Explosive atmospheres-Part 13: Equipment repair, overhaul and reclamation", GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous areas (other than mines)", GB3836.16-2006 "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)" , GB3836.18-2010 Explosive atmospheres-Part 18:Intrinsically safe system and GB50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

2. MANUFACTURER'S RESPONSIBILITY

2.1 The instruction manual shall include all the clauses mentioned above.

2.2 The manufacturer shall exactly conform to the documents approved by NEPSI as following.

| Drawing No. | Rev./Dated | Remark |
|---------------|------------|--------|
| 266-036BS-K | 2014.05.12 | - |
| 266-036BS-01J | 2010.09.22 | - |
| 266-036BS-02J | 2011.02.25 | - |
| 266-036BS-03J | 2011.02.25 | - |
| 266-010BS-04E | 2014.03.27 | - |
| 266-036BS-04J | 2010.07.12 | - |
| 266-036BS-05J | 2011.07.19 | - |
| 266-036BS-06J | 2011.02.25 | - |
| 266-036BS-07J | 2011.02.25 | - |
| 266-036BS-10K | 2014.05.12 | - |

2.3 The nameplate shall include the following:

2.3.1 Identification of NEPSI.

2.3.2 Marking and Certificate No.

2.3.3 Certificate No.

2.3.4 Electrical parameters or specification

**National Supervision and Inspection Centre
For Explosion Protection and Safety of Instrumentation**
April 26, 2016