



# 防爆合格证

证号: GYJ19.1285

由 德国PEPPERL+FUCHS有限公司

制造的产品:

(地址: Lilienthalstrasse 200, D-68307 Mannheim, Germany)

名 称 隔离式安全栅

型号规格 KCD2-STC-Ex1.ES、KCD2-STC-Ex1.ES.SP

防爆标志 [Ex ia Ga] II C

产品标准 /

图样编号 见附件

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: 2019年8月5日至2024年8月4日

备注 1. 安全使用注意事项见本证书附件。  
2. 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

颁发日期二〇一九年八月五日



本证书仅对与认可文件和样品一致的产品有效。

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# 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

(GYJ19.1285)

(Attachment II)

## GYJ19.1285防爆合格证附件 II

德国 PEPPERL+FUCHS 有限公司生产的 KCD2 - STC - Ex1.ES 型和 KCD2 - STC - Ex1.ES.SP 型隔离式安全栅，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] II C，防爆合格证号为GYJ19.1285。

### 一、产品使用注意事项

1. 隔离式安全栅必须安装在安全场所，使用环境温度范围介于-20℃~+70℃。
2. 隔离式安全栅的非本安端子（电源和）：250V a.c.

接线端子代号	最高电压 (Um)
9 -10 PR1-PR2, PR4	250V a.c.
6 - 5	250V a.c.

3. 隔离式安全栅本安端子电气参数：

接线端子代号	最高输出电压 Uo (V)	最大输出电流 Io (mA)	最大输出功率 Po (mW)	内部等效参数	
				Ci (nF)	Li (mH)
1, 2	25.2	100	630	5.7	0
3, 4	7.2	100	25	5.7	0

接线端子代号	最高输入电压 Ui (V)	最大输入电流 Ii (mA)
3, 4	30	128

接线端子代号	气体组别	最大外部分布参数	
		Co ( $\mu\text{F}$ )	Lo (mH)
1, 2	II C	0.1	3.5
	II B	0.81	14
	II A	2.8	28
3, 4	II C	13.49	3.5
	II B	239	14
	II A	1000	28

注：以上表格中最大外部电容（Co）和电感（Lo）数值使用时应注意下列要求：

- 对于仅含分布电感和电容的电路，例如电缆的分布电容和电感，允许的最大外部电容和电感数值为表格允许值；
- 对于与电缆组合的电路，当本安电路中含有最大为表格允许值1%以下的电感或表格容许值1%以下的电容时，允许的最大外部电容和电感数值为表格允许值；
- 对于电感和电容组合电路，当电感和电容均大于表格容许值的1%（不包括电缆）时，允许的最大外部电容和电感数值为表格允许值的50%。

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”、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”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
16-0801CE-00B	2018-09-12	-
16-0801CE-01B	2018-09-12	-
16-0801CE-02B	2018-09-12	-
16-0801CE-03B	2018-09-12	-
16-0801CE-04	2010-09-14	-
16-0801CE-05B	2018-09-12	-
16-0801CE-06B	2018-09-12	-
16-0801CE-07B	2018-09-12	-
16-0801CE-09B	2018-09-12	-
16-0801CE-10B	2018-09-12	-
16-0801CE-13B	2018-09-12	-



3. 产品铭牌中应包括下列内容：
- 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) 本安参数
  - 5) 使用环境温度

国家级仪器仪表防爆安全监督检验站

二〇二〇年二月十日



# EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert NO.GYJ19.1285

This is to certify that the product

Isolated Barrier

manufactured by PEPPERL+FUCHS GmbH

(Address:Lilienthalstrasse 200, D-68307 Mannheim, Germany )

which model is KCD2-STC-Ex1.ES, KCD2-STC-Ex1.ES.SP

Ex marking [Ex ia Ga] IIC

product standard /

drawing number See the attachment

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 2024.08.04

Remarks 1.Conditions for safe use are specified in the attachment to this certificate.  
2.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 2019.08.05



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

(GYJ19.1285)

(Attachment I)

### Attachment I (Translation)

Isolated Barrier typed KCD2-STC-Ex1.ES and KCD2-STC-Ex1.ES.SP, 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 GYJ19.1285.

#### 1. SPECIAL REQUIREMENTS

1.1 The isolated barrier must be located in a non-hazardous area, the permissible maximum ambient temperature is -20°C to +70°C.

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

Terminals	Maximum voltage (Um)
9 -10 PR1-PR2, PR4	250V a.c.
6 - 5	250V a.c.

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

Terminals code	Max. output voltage Uo (V)	Max. output current Io (mA)	Max. output power Po (mW)	Max. internal parameters	
				Ci (nF)	Li (mH)
1, 2	25.2	100	630	5.7	0
3, 4	7.2	100	25	5.7	0

Terminals code	Max. input voltage Ui (V)	Max. input current Ii (mA)
3, 4	30	128

Terminals code	Gas groups	Maximum external parameters	
		Co ( $\mu$ F)	Lo (mH)
1, 2	IIC	0.1	3.5
	IIB	0.81	14
	IIA	2.8	28
3, 4	IIC	13.49	3.5
	IIB	239	14
	IIA	1000	28

Note: the above parameters applied shall be compliance with either of the following methods:

– for distributed inductance and capacitance e.g. as in a cable, allow the values of capacitance and inductance;

– for circuits containing up to 1 % inductance or up to 1% capacitance with a cable, allow the values of capacitance and inductance;

– for connection of the combined inductance and capacitance where both are greater than 1% of the allowed value (excluding the cable), allow up to 50% each of the values of capacitance and inductance.

1.4 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", GB/T 3836.15-2017 "Explosive gas atmospheres - Part 15: Electrical installations design, selection and erection", GB/T 3836.16-2017 "Explosive atmospheres - Part 16: Electrical installations inspection and maintenance", 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
16-0801CE-00B	2018-09-12	–
16-0801CE-01B	2018-09-12	–
16-0801CE-02B	2018-09-12	–
16-0801CE-03B	2018-09-12	–
16-0801CE-04	2010-09-14	–
16-0801CE-05B	2018-09-12	
16-0801CE-06B	2018-09-12	
16-0801CE-07B	2018-09-12	
16-0801CE-09B	2018-09-12	
16-0801CE-10B	2018-09-12	
16-0801CE-13B	2018-09-12	–

2.3 The nameplate shall include the following:

2.3.1 Identification of NEPSI.

2.3.2 Ex Marking.

2.3.3 Certificate No.

2.3.4 Electrical parameters or specification.

2.3.5 Ambient temperature

**National Supervision and Inspection Centre  
For Explosion Protection and Safety of Instrumentation  
Feb. 10, 2020**

