

# 防爆合格证

证号: GYJ20.1196U

由 Phoenix Contact GmbH & Co. KG 制造的产品:  
(地址: Flachsmarktstrasse 8, 32825 Blomberg, Germany)

名称 接线端子/接地端子

型号规格 MBK系列、MTKD系列、MUT系列、MPT系列、MSB系列、MSDB系列、MXK 4、MSLKG 2.5

防爆标志 Ex eb IIC

产品标准 /

图样编号 见本证书附件

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 3836.3-2010 标准, 特颁发此证。

本证书有效期: 2020年8月5日至2025年8月4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“U”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. 本证书同时适用于其他生产企业生产的同型号产品, 生产企业名称和地址见证书附件。

站长

国家级仪器仪表防爆安全监督检验站

颁发日期二〇二〇年八月五日

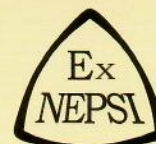
本证书仅对与认可文件和样品一致的产品有效。

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# EXPLOSION PROTECTION

## CERTIFICATE OF CONFORMITY

Cert NO.GYJ20.1196U

This is to certify that the product

**Terminal Blocks/Protective conductor terminal blocks**

**manufactured by Phoenix Contact GmbH & Co. KG**

(Address:Flachsmarktstrasse 8, 32825 Blomberg ,Germany)

**which model is MBK series、MTKD series、MUT series、MPT series、MSB series、MSDB series、MXK 4、MSLKG 2.5**

**Ex marking Ex eb 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 3836.3-2010**

**This Approval shall remain in force until 2025.08.04**

**Remarks** 1.Conditions for safe use are specified in the attachment(s) to this certificate.  
2.Symbol "U" 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.This certificate is also applicable to the products of the same model from other factories, the name and address of the factories are specified in the attachment(s) to this certificate.

**Director**

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

**Issued Date 2020.08.05**



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

(GYJ20.1196U)

(Attachment I)

### Attachment I to GYJ20.1196U

Terminal blocks/Protective conductor terminal blocks typed MBK series、MTKD series、MPT series、MSB series、MSDB series、MXK 4 and MSLKG 2.5, manufactured by Phoenix Contact GmbH & Co. KG 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 3836.3-2010 Explosive atmospheres -Part 3: Equipment protection by increased safety "e"

The Ex marking is Ex eb IIC, the certificate number is GYJ20.1196U.

Type、drawing and rating approved in this certificate as following:

Note: the suffix of product type indicates the color of terminal block, which is irrelevant with explosion-proof performance. (There is no suffix for type in the following table)

Type		MBK 3/E-Z	MBK 6/E
Drawing		00280063	00280649
Rated insulation voltage(V)		250	250
Rated voltage(V)		275	275
	with bridge FB	250	275
	at bridging between non-adjacent terminal block	176	-
Rated current(A)		21	37
	with bridge FB	22	33
	Contact resistance (mΩ)	0.5	0.78
Connectable conductor cross section(AWG)	rigid	24-12	20-8
Connectable conductor cross section(AWG)	flexible	24-14	20-10



Multiple conductor connection(AWG)	rigid	24-16	20-14
Multiple conductor connection(AWG)	flexible	24-16	20-14
Operating temperature range		-60℃~+105℃	

Type		MSLKG 6
Drawing		00281015
Connectable conductor cross section(AWG)	rigid	20-8
Connectable conductor cross section(AWG)	flexible	20-10
Operating temperature range		-60℃~+105℃

Type		MBK 2.5/E
Drawing		00263523
Rated insulation voltage(V)		160
Rated voltage(V)		176
Rated current(A)		22
	With jumper type FBRN 10-5-EX	20
	With jumper type EB 2/3/10-5	19
	Contact resistance (mΩ )	0.35
Connectable conductor cross section(AWG)	rigid	24-14
Connectable conductor cross section(AWG)	flexible	24-18
Operating temperature range		-50℃~+110℃

Type		MSLKG 2.5
Drawing		00300419
Connectable conductor cross section(AWG)	rigid	24-12
Connectable conductor cross section(AWG)	flexible	24-14
Operating temperature range		-50℃~+110℃



Type		MBKKB 2.5
Drawing		00296270
Rated insulation voltage(V)		250
Rated voltage(V)		275
Rated current(A)		21
	With jumper type FBRNI..-5-EX	19
	Contact resistance (mΩ)	0.5(level 1) 0.4(level 2)
Connectable conductor cross section(AWG)	rigid	24-12
Connectable conductor cross section(AWG)	flexible	24-14
Multiple conductor connection(AWG)	rigid	24-16
Multiple conductor connection(AWG)	flexible	24-16
Operating temperature range		-50℃~+110℃

Type		MXK 4
Drawing		00210928
Rated insulation voltage(V)		400
Rated voltage(V)		440
Rated current(A)		27
Connectable conductor cross section(AWG)	rigid	24-12
Connectable conductor cross section(AWG)	flexible	24-12
Multiple conductor connection(AWG)	rigid	24-16
Multiple conductor connection(AWG)	flexible	24-16
Operating temperature range		-60℃~+110℃

Type	Fastened on mounting rails	MSB 2.5 (MSDB 2.5)	MSB 2.5-M (MSDB 2.5-M)	MSB 2.5-NS 35 (MSDB 2.5-NS 35)	MSB 2.5-RZ (MSDB 2.5-RZ)
Drawing		00461338 (00461343)	00461340 (00461345)	00461341 (00461346)	00461342 (00461347)
Rated insulation voltage(V)		630	630	630	630



Rated voltage(V)		690	690	690	690
Rated current(A)		28	28	28	28
	Contact resistance (mΩ)	0.87	0.87	0.87	0.87
Connectable conductor cross section(mm <sup>2</sup> )	rigid	0.08-4	0.08-4	0.08-4	0.08-4
Connectable conductor cross section(mm <sup>2</sup> )	flexible	0.08-2.5	0.08-2.5	0.08-2.5	0.08-2.5
Operating temperature range		-50℃~+110℃			

Type	Fastened on mounting rails	MSB 2.5-F (MSDB 2.5-F)	MSB 2.5-M (MSDB 2.5-M)	MSB 2.5-RZ (MSDB 2.5-RZ)
Drawing		00461339 (00461344)	00461340 (00461345)	00461342 (00461347)
Rated insulation voltage(V)		500	500	500
Rated voltage(V)		550	550	550
Rated current(A)		28	28	28
	Contact resistance (mΩ)	0.87	0.87	0.87
Connectable conductor cross section(mm <sup>2</sup> )	rigid	0.08-4	0.08-4	0.08-4
Connectable conductor cross section(mm <sup>2</sup> )	flexible	0.08-2.5	0.08-2.5	0.08-2.5
Operating temperature range		-50℃~+110℃		

Type	Fastened on mounting rails	MSB 2.5-PE (MSB 2.5-NS 35-PE)
Drawing		00586073 (00589117)



Connectable conductor cross section(mm <sup>2</sup> )	rigid	0.08-4
Connectable conductor cross section(mm <sup>2</sup> )	flexible	0.08-2.5
Operating temperature range		-50℃~+110℃

Type		MUT 2.5	MUT 4
Drawing		00721599	00722802
Rated insulation voltage(V)		320	320
Rated voltage(V)		352	352
	at bridging with fixed bridge	352	352
	At bridging between non-adjacent terminal blocks	220	220
	At bridging between non-adjacent terminal blocks via PE terminal block	220	220
	At cut-to-length bridging with cover	275	275
Rated current(A)		20.5	27.5
	Contact resistance (mΩ)	0.33	0.25
Connectable conductor cross section(AWG)	rigid	24-12	24-10
Connectable conductor cross section(AWG)	flexible	24-14	24-12
Multiple conductor connection(AWG)	rigid	24-16	24-16
Multiple conductor connection(AWG)	flexible	24-16	24-16
Operating temperature range		-60℃~+110℃	
Type		MUT 2.5-PE	MUT 4-PE
Drawing		00721787	00722832
Connectable conductor cross section(AWG)	rigid	24-12	24-10
Connectable conductor cross section(AWG)	flexible	24-14	24-12



Operating temperature range		-60℃~+110℃
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Type		MPT 1.5-S	MPT 2.5
Drawing		00753004	00764542
Rated insulation voltage(V)		320	400
Rated voltage(V)		352	440
	at bridging with fixed bridge	352	440
	At bridging between non-adjacent terminal blocks	220	352
	At cut-to-length bridging	166	220
	At cut-to-length bridging with cover	352	440
Rated current(A)		14.5	20.5
	Contact resistance (mΩ )	1.6	0.8
Connectable conductor cross section(AWG)	rigid	26-16	26-12
Connectable conductor cross section(AWG)	flexible	26-16	26-14
Operating temperature range		-60℃~+110℃	
Type		MPT 1.5-S-PE	MPT 2.5-PE
Drawing		00753970	00771174
Connectable conductor cross section(AWG)	rigid	26-16	26-12
Connectable conductor cross section(AWG)	flexible	26-16	26-14
Operating temperature range		-60℃~+110℃	



Type		MTKD-CU/CUNI EX MTKD-FE/CUNI EX MTKD-NICR/CUNI EX MTKD-NICRSI/NISI EX MTKD-NICR/NI EX MTKD-E-CU/A-CU EX MTKD-S-CU/E-CU EX
Drawing		00536223
Rated insulation voltage(V)		250
Rated voltage(V)		275
Rated current(A)		1
	Contact resistance (mΩ )	11
Connectable conductor cross section(AWG)	rigid	24-12
Connectable conductor cross section(AWG)	flexible	24-14
Operating temperature range		-50℃~+110℃

This certificate is applicable to products of the same model from other factories, the name and address of the factories are as following:

No.	name of the factory	address of the factory
1	Phoenix Feinbau GmbH	Gustavstrasse 3, 58511 Luedenscheid, Germany
2	Phoenix Contact Wielkopolska Sp. z o.o.	ul Celna 5, 64- 300 Nowy Tomyśl, Poland
3	Phoenix Contact Asia-Pacific (Nanjing) Co.,Ltd.	No. 6 Mozhou East Road, Jiangning Nanjing 211111, China
4	Phoenix Contact India Private Limited	Prithla-Dhatir Road, Village Dudhola, Dist. Palwal, Haryana 121102, India
5	ACEL Elektrik Sanayi Ve Ticaret Ltd. Sti.	Ata Mahallesi Serbest Bölge Orkide Caddesi No 13/15, 16600 Bursa; Bursa Serbest Bölgesi A1 – A5, B3-B9; Turkey

### 1. Special condition for safe use

Suffix “U” denotes special condition for safe use: The terminal block is an Ex Component, which is not intended to be used alone, and requires additional consideration when incorporated into Ex Equipment.



## 2. Condition for safe use

2.1 During assembling and installing, the clearance and creepage distance shall satisfy GB 3836.3-2010.

2.2 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.

2.3 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: Eletrical installations design, selection and erection

GB/T3836.16-2017 Explosive atmospheres-Part 16: Eletrical installations inspectio 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 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.

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

August 5<sup>th</sup>, 2020



# 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 InUTrumentation

(GYJ20.1196U)

(Attachment I)

### GYJ20.1196U防爆合格证附件 I

由Phoenix Contact GmbH & Co. KG生产的MBK系列、MTKD系列、MUT系列、MPT系列、MSB系列、MSDB系列、MXK 4和MSLKG 2.5接线端子/接地端子，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 3836.3-2010 爆炸性环境 第3部分：由增安型“e”保护的设备

产品防爆标志为Ex eb IIC，防爆合格证号为GYJ20.1196U。

本证书认可的产品、总装图及额定参数如下表所示：

注：产品型号后缀表示端子颜色，与防爆性能无关。（下列表格中型号规格未标注后缀）

型号规格		MBK 3/E-Z	MBK 6/E
图号		00280063	00280649
额定绝缘电压(V)		250	250
额定电压(V)		275	275
	带FB桥接	250	275
	带桥接（非相邻端子间）	176	-
额定电流(A)		21	37
	带FB桥接	22	33
	接触电阻 (mΩ)	0.5	0.78
额定导线规格(AWG)	刚性	24-12	20-8
额定导线规格(AWG)	柔性	24-14	20-10
多组导线额定规格(AWG)	刚性	24-16	20-14
多组导线额定规格(AWG)	柔性	24-16	20-14
工作温度		-60℃~+105℃	

型号规格		MSLKG 6
图号		00281015
额定导线规格(AWG)	刚性	20-8
额定导线规格(AWG)	柔性	20-10
工作温度		-60℃~+105℃



型号规格		MBK 2.5/E
图号		00263523
额定绝缘电压(V)		160
额定电压(V)		176
额定电流(A)		22
	带FBRN 10-5-EX桥接	20
	带EB 2/3/10-5桥接	19
	接触电阻 (mΩ)	0.35
额定导线规格(AWG)	刚性	24-14
额定导线规格(AWG)	柔性	24-18
工作温度		-50℃~+110℃

型号规格		MSLKG 2.5
图号		00300419
额定导线规格(AWG)	刚性	24-12
额定导线规格(AWG)	柔性	24-14
工作温度		-50℃~+110℃

型号规格		MBKKB 2.5
图号		00296270
额定绝缘电压(V)		250
额定电压(V)		275
额定电流(A)		21
	带FBRNI...-5-N桥接	19
	接触电阻 (mΩ)	0.5(第一层) 0.4(第二层)
额定导线规格(AWG)	刚性	24-12
额定导线规格(AWG)	柔性	24-14
多组导线额定规格(AWG)	刚性	24-16
多组导线额定规格(AWG)	柔性	24-16
工作温度		-50℃~+110℃

型号规格		MXK 4
图号		00210928
额定绝缘电压(V)		400
额定电压(V)		440
额定电流(A)		27



额定导线规格(AWG)	刚性	24-12
额定导线规格(AWG)	柔性	24-12
多组导线额定规格(AWG)	刚性	24-16
多组导线额定规格(AWG)	柔性	24-16
工作温度		-60℃~+110℃

型号规格	固定在安装 导轨上	MSB 2.5 (MSDB 2.5)	MSB 2.5-M (MSDB 2.5-M)	MSB 2.5-NS 35 (MSDB 2.5-NS 35)	MSB 2.5-RZ (MSDB 2.5-RZ)
图号		00461338 (00461343)	00461340 (00461345)	00461341 (00461346)	00461342 (00461347)
额定绝缘电压(V)		630	630	630	630
额定电压(V)		690	690	690	690
额定电流(A)		28	28	28	28
	接触电阻 (mΩ)	0.87	0.87	0.87	0.87
额定导线规格 (mm <sup>2</sup> )	刚性	0.08-4	0.08-4	0.08-4	0.08-4
额定导线规格 (mm <sup>2</sup> )	柔性	0.08-2.5	0.08-2.5	0.08-2.5	0.08-2.5
工作温度		-50℃~+110℃			

型号规格	固定在安装板上	MSB 2.5-F (MSDB 2.5-F)	MSB 2.5-M (MSDB 2.5-M)	MSB 2.5-RZ (MSDB 2.5-RZ)
图号		00461339 (00461344)	00461340 (00461345)	00461342 (00461347)
额定绝缘电压(V)		500	500	500
额定电压(V)		550	550	550
额定电流(A)		28	28	28
	接触电阻 (mΩ)	0.87	0.87	0.87
额定导线规格(mm <sup>2</sup> )	刚性	0.08-4	0.08-4	0.08-4
额定导线规格(mm <sup>2</sup> )	柔性	0.08-2.5	0.08-2.5	0.08-2.5
工作温度		-50℃~+110℃		

型号规格	固定在安装导轨上	MSB 2.5-PE (MSB 2.5-NS 35-PE)
图号		00586073 (00589117)
额定导线规格(mm <sup>2</sup> )	刚性	0.08-4
额定导线规格(mm <sup>2</sup> )	柔性	0.08-2.5
工作温度		-50℃~+110℃



型号规格		MUT 2.5	MUT 4
图号		00721599	00722802
额定绝缘电压(V)		320	320
额定电压(V)		352	352
	带桥接	352	352
	带桥接(非相邻端子间)	220	220
	带PE桥接(非相邻端子间)	220	220
	带桥接和盖板	275	275
额定电流(A)		20.5	27.5
	接触电阻 (mΩ )	0.33	0.25
额定导线规格(AWG)	刚性	24-12	24-10
额定导线规格(AWG)	柔性	24-14	24-12
多组导线额定规格 (AWG)	刚性	24-16	24-16
多组导线额定规格 (AWG)	柔性	24-16	24-16
工作温度		-60℃~+110℃	
型号规格		MUT 2.5-PE	MUT 4-PE
图号		00721787	00722832
额定导线规格(AWG)	刚性	24-12	24-10
额定导线规格(AWG)	柔性	24-14	24-12
工作温度		-60℃~+110℃	

型号规格		MPT 1.5-S	MPT 2.5
图号		00753004	00764542
额定绝缘电压(V)		320	400
额定电压(V)		352	440
	带桥接	352	440
	带桥接(非相邻端子间)	220	352
	带桥接(相邻端子间)	166	220
	带桥接和盖板	352	440
额定电流(A)		14.5	20.5



	接触电阻 (mΩ)	1.6	0.8
额定导线规格(AWG)	刚性	26-16	26-12
额定导线规格(AWG)	柔性	26-16	26-14
工作温度		-60℃~+110℃	
型号规格		MPT 1.5-S-PE	MPT 2.5-PE
图号		00753970	00771174
额定导线规格(AWG)	刚性	26-16	26-12
额定导线规格(AWG)	柔性	26-16	26-14
工作温度		-60℃~+110℃	

型号规格		MTKD-CU/CUNI EX MTKD-FE/CUNI EX MTKD-NICR/CUNI EX MTKD-NICRSI/NISI EX MTKD-NICR/NI EX MTKD-E-CU/A-CU EX MTKD-S-CU/E-CU EX
图号		00536223
额定绝缘电压(V)		250
额定电压(V)		275
额定电流(A)		1
	接触电阻 (mΩ)	11
额定导线规格(AWG)	刚性	24-12
额定导线规格(AWG)	柔性	24-14
工作温度		-50℃~+110℃

本证书同时适用于其他生产企业生产的同型号产品，生产企业名称和地址如下表所示：

序号	生产企业名称	生产企业地址
1	Phoenix Feinbau GmbH	Gustavstrasse 3, 58511 Luedenscheid, Germany
2	Phoenix Contact Wielkopolska Sp. z o.o.	ul Celna 5, 64- 300 Nowy Tomyśl, Poland
3	Phoenix Contact Asia-Pacific (Nanjing) Co.,Ltd.	No. 6 Mozhou East Road, Jiangning Nanjing 211111, China
4	Phoenix Contact India Private Limited	Prithla-Dhatir Road, Village Dudhola, Dist. Palwal, Haryana 121102, India
5	ACEL Elektrik Sanayi Ve Ticaret Ltd. Sti.	Ata Mahallesi Serbest Bölge Orkide Caddesi No 13/15, 16600 Bursa; Bursa Serbest Bölgesi A1 – A5, B3-B9; Turkey



## 一、产品安全使用特定条件

证书编号后缀“U”表明产品具有安全使用特殊条件：接线端子为Ex元件，不能单独在爆炸性环境中使用，组成防爆设备时须附加认证。

## 二、产品使用注意事项

1. 组合安装接线端子时，应确认电气间隙和爬电距离符合GB 3836.3-2010的规定。
2. 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。

3. 用户在安装、使用和维护接线端子时，须同时严格遵守产品使用说明书和下列标准：

GB 3836.13-2013 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

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. 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。

国家级仪器仪表防爆安全监督检验站

二〇二〇年八月五日