



Metal Switch

J&V Science and Technology Co.,Ltd

ISO9001 TS16949 RoHS

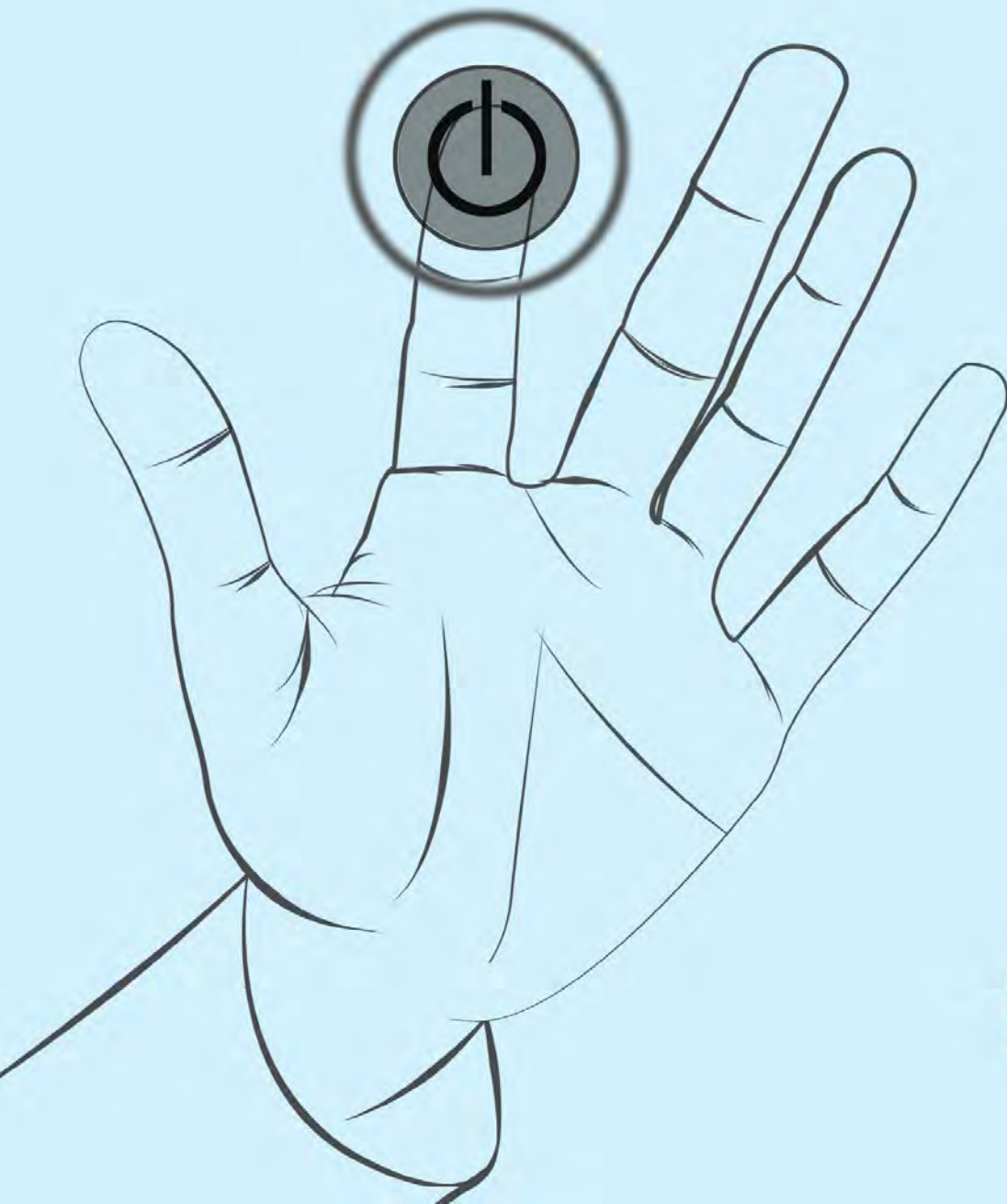


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我们一直追求高品质的产品，至善的服务
完美的外观设计，严谨的工艺流程
始终坚持每个细节的完善

We have been the pursuit of high-quality products, perfect services,
design and rigorous technological process,
always adhere to persue the perfection of every detail.



J&V Science and Technology Co.,Ltd

ISO9001 TS16949 RoHS

CE CB KEMA KEUR S PG CCC UL GMI TUV

AD45



Metal Switch 剑威金属按钮

产品应用范围



Certificate

资质证书



Attestation of Conformity
No. WA 15 07 6087 002

Holder of Certificate: Dongguan J&V Electronic Science and Technology Co., Ltd.
Address: No. 10, Road No. 1, Dongguan City, Guangdong Province, P.R. China

Product: Lampholder (S2 Lampholder)

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

UL Marking: [Image of UL mark]

CERTIFICATE
No. 15 07 6087 001

Holder of Certificate: Dongguan J&V Electronic Science and Technology Co., Ltd.
Address: No. 10, Road No. 1, Dongguan City, Guangdong Province, P.R. China

Certification Mark: [Image of TÜV mark]

Product: Lampholder (S2 Lampholder)

Test Report No.: 0101010001

UL Marking: [Image of UL mark]

CERTIFICATE OF COMPLIANCE

Certificate Number: 0101010001
Report Reference: 0101010001
Issue Date: 2014 SEPTEMBER 23

Product: Dongguan J&V Electronic Science and Technology Co., Ltd.
Zheng Yang Ting Yung Industrial Park
Zhongshan Town
Dongguan
Guangdong 523300 CHINA

Component: COMPONENT - LAMPHOLDER, BASES, ACCESSORIES AND ACCESSORIES

Standard for Safety: UL 6184, CAN/CSA C22.76, AS, Standard for Lampholders

Additional Information: See the UL Online Catalogue Directory at www.ul.com/catalog for additional information.

UL Marking: [Image of UL mark]

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Dongguan
Guangdong 523300 CHINA

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UL Marking: [Image of UL mark]

实用新型专利证书

专利号: ZL 2014 2 0000001.1

专利权人: 东莞市中仁南电子科技有限公司

发明名称: 一种LED灯座

公告号: 2015 2 0000001.1

公告日期: 2015 年 07 月 01 日

IPC分类号: H01K 01/00

申请人: 中仁南

实用新型专利证书

专利号: ZL 2014 2 0000002.1

专利权人: 东莞市中仁南电子科技有限公司

发明名称: 一种LED灯座

公告号: 2015 2 0000002.1

公告日期: 2015 年 07 月 01 日

IPC分类号: H01K 01/00

申请人: 中仁南

实用新型专利证书

专利号: ZL 2014 2 0000003.1

专利权人: 东莞市中仁南电子科技有限公司

发明名称: 一种LED灯座

公告号: 2015 2 0000003.1

公告日期: 2015 年 07 月 01 日

IPC分类号: H01K 01/00

申请人: 中仁南

实用新型专利证书

专利号: ZL 2014 2 0000004.1

专利权人: 东莞市中仁南电子科技有限公司

发明名称: 一种LED灯座

公告号: 2015 2 0000004.1

公告日期: 2015 年 07 月 01 日

IPC分类号: H01K 01/00

申请人: 中仁南

实用新型专利证书

专利号: ZL 2014 2 0000005.1

专利权人: 东莞市中仁南电子科技有限公司

发明名称: 一种LED灯座

公告号: 2015 2 0000005.1

公告日期: 2015 年 07 月 01 日

IPC分类号: H01K 01/00

申请人: 中仁南

Certificate of Conformity

Certificate Number: B-01087104

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-01

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

Certificate of Conformity

Certificate Number: B-01087102

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-02

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

Certificate of Conformity

Certificate Number: B-01087106

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-03

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

DA TECHNIC - ATTESTATION OF CONFORMITY

DA TECHNIC - LOW VOLTAGE DIRECTIVE

Certificate Number: B-01087108

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-04

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

conformity certification

CERTIFICATE OF APPROVAL

Certificate Number: B-01087109

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-05

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

conformity certification

CERTIFICATE OF APPROVAL

Certificate Number: B-01087110

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-06

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

1006 OSI

Certificate of Approval

Approved to

Dongguan J&V Electronic Science and Technology Co., Ltd.

Beijing Zhongnanmen Certification Center

Certificate of Conformity

Certificate Number: B-01087111

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-07

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

Certificate of Conformity

Certificate Number: B-01087112

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-08

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited

Certificate of Conformity

Certificate Number: B-01087113

Low Voltage Directive 2006/95/EC

Product: LED Lamp Holder

Manufacturer: Dongguan J&V Electronic Science and Technology Co., Ltd.

Model No.: J&V-LH-09

Test Report No.: 0101010001

CE Marking: [Image of CE mark]

Beide (UK) Product Service Limited





Metal Button Switch 金属按钮开关 $\Phi 12 \sim 40\text{mm}$



东莞市剑威电子科技有限公司
J&V Science and Technology Co., Ltd

ISO9001 TS16949 RoHS



index 产品索引



金属按钮特点简介/Metal button feature profile

- 1、具有超强复位功能；
 - 2、精致、小巧玲珑的外观设计，适合小型产品；
 - 3、防水、防尘等级可达IP65；
 - 4、机械寿命最高可达20万次以上，质量保障；
 - 5、LED内置降压电阻，可随意选择电压。
- 1、 With strong reset function;
 - 2、 Designs, exquisite, little and dainty, suitable for small products;
 - 3、 Waterproof, dust level can reach Ip65;
 - 4、 The mechanical life of the highest up to 200000 times, quality assurance;
 - 5、 LED built-in voltage resistance, can choose the voltage.



ISO9001 TS16949 RoHS
CE CB KEMA S PC CCC UL GRS TUV

Metal Button Switch 金属按钮开关 Φ12mm 12A Series





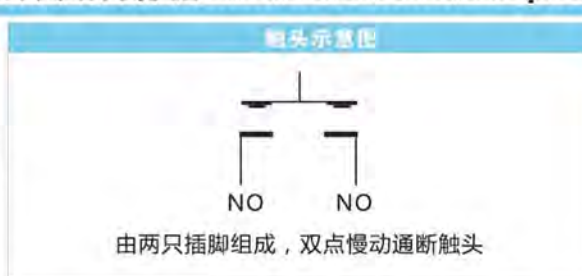
型号说明/Model description

28	○	A	X	X	X	X	X	X	X
剑威代码 JV Code	安装孔直径 (开关 螺纹外径 mm) Mounting hole diam eter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch com- bination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
12			1: 平圆形斜面 外壳 2: 高平圆形斜 面外壳 1: Planar circular slant shell 2: High planar circular slant shell	1: 1NO—1O (NO为常开触头) 2: 1NO—1O (NO is normally open contact)	1: 自复式 2: 自锁式 1: self com- pound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 0: No light 1: Single point 2: Annular 3: Power source	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	3A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	3 2 1.5
电感性负载 Inductive load	1.2 0.8 0.6

开关结构说明/Switch structure description



LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	单色发光内置电阻降压，双色发光外接电阻降压 Single color light emitting internal resistance, double color light emitting external resistance 单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative) 双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



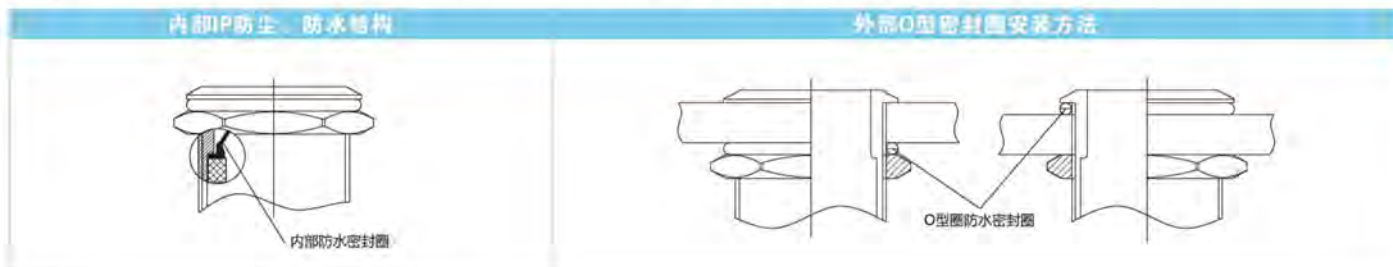
其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 Slow moving double contact	防爆等级 Explosion grade	Ik08 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约2N About 2N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约1.1mm,总行程约2mm Connected to about 1.1mm, head office about 2mm
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m 5 - 14N.m
环境温度 Ambient temperature	-20℃ ~ +85℃	外壳 Outer shell	不锈钢/黄铜镀镍 Stainless steel / brass plating
电器寿命 Electrical life	10万次以上 More than 100000 times	按键 Press key	不锈钢/黄铜镀镍 Stainless steel / brass plating
机械寿命 Mechanical life	50万次以上 More than 500000 times	基座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP65	触点 Touch point	镀银/金 plasticsSilver / gold

防护与安装说明/Protection and installation instructions

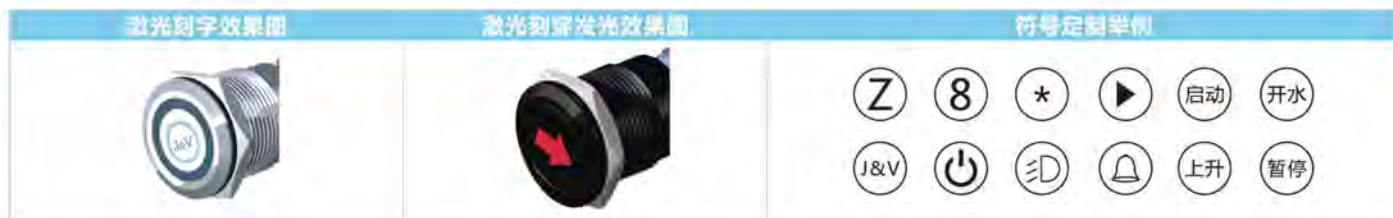
金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及防腐蚀性等特点。防水等级IP65，防爆能力IK08。

Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP65, explosion-proof capability IK08.



标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。
The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.



实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions

JV-12 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

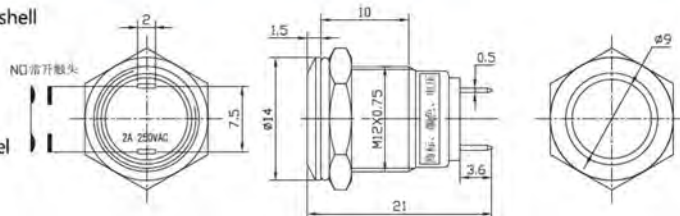
JV-40 Series

Indicator Series



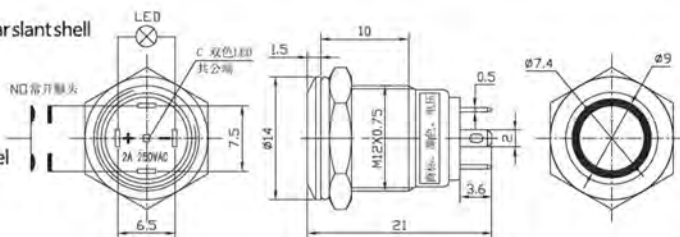
28.12A.1.1.1.0.0.0.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self compound
 Operation Type: Self compound
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 2A /DC36V
 Switch Rating: 2A /DC36V
 防护等级: IP65 Ik08
 Switch Rating: IP65 Ik08



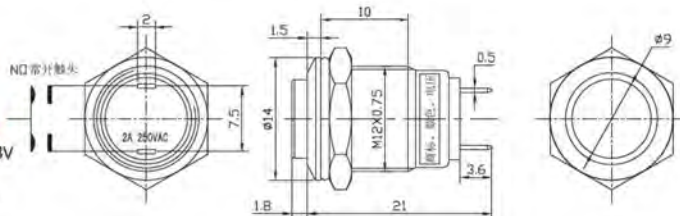
28.12A.2.1.1.0.0.0.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: High planar circular slant shell
 Shape: High planar circular slant shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self compound
 Operation Type: Self compound
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 2A /DC36V
 Switch Rating: 2A /DC36V
 防护等级: IP65 IK08
 Switch Rating: IP65 IK08



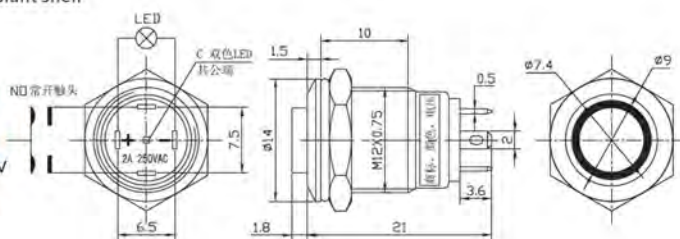
28.12A.1.1.2.X.X.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self compound
 Operation Type: Self compound
 发光类型: Annular
 Luminescence type: Annular
 发光颜色: R G B Y W P R G B
 Luminous color: R G B Y W P R G B
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 2A /DC36V
 Switch Rating: 2A /DC36V
 防护等级: IP65 Ik08
 Switch Rating: IP65 Ik08



28.12A.2.1.1.2.X.X.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: High planar circular slant shell
 Shape: High planar circular slant shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self compound
 Operation Type: Self compound
 发光类型: Annular
 Luminescence type: Annular
 发光颜色: R G B Y W P R G B
 Luminous color: R G B Y W P R G B
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 2A /DC36V
 Switch Rating: 2A /DC36V
 防护等级: IP65 Ik08
 Switch Rating: IP65 Ik08





ISO9001 TS16949 RoHS
CE CB KEMA S PG CC UL SRM TUV

Metal Button Switch 金属按钮开关 Φ12mm 12B Series

金属按钮特点简介/Metal button feature profile

通过剑威研发改良后的金属按钮开关具有以下特点：

- 1、具有超强的自锁性能与舒适的操作手感；
- 2、精致、小巧玲珑的外观设计，适合小型电气配套；
- 3、防水、防尘等级可达IP65；
- 4、机械寿命最高可达10万次以上，质量保障；
- 5、LED外接降压电阻，可随意选择电压；
- 6、超短尺寸，总长紧25.8mm。

By J&V research and development of improved metal push button switch has the following features:

- 1、it has strong self-locking performance and comfortable handle;
- 2、delicate, small and exquisite appearance design, suitable for small electrical matching;
- 3、waterproof, dustproof level can reach IP65.
- 4、mechanical life up to more than 100000 times, quality assurance;
- 5、LED external step-down resistance, optional choose voltage;
- 6、exceed short size, length of 25.8 mm.



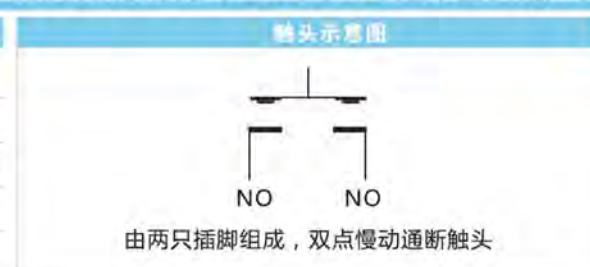
型号说明/Model description

28	□	B	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径 (开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
12		1: 平圆形斜面外壳 2: 高平圆形斜面外壳 1: Planar circular slant shell 2: High planar circular slant shell	1: 1NO (NO为常开触头) 1: 1NO (NO is normally open contact)	1: 自复式 2: 自锁式 1: self compound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 0: No light 1: Single point 2: Annular 3: Power source	1- R 2- G 3- B 4- Y 5- W 6- □ 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating	

开关额定负载/Switch rated load

开关结构说明/Switch structure description

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	3A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	3 2 1.5
电感性负载 Inductive load	1.2 0.8 0.6



LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W □ P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	<p>外接电阻降压 External resistance</p> <p>单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)</p> <p>双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)</p>
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



其它参数/Other parameters

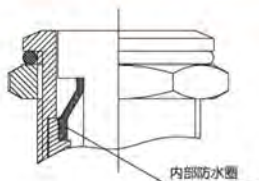
项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 Slow moving double contact	防爆等级 Explosion grade	IK08 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约2N About 2N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约1.1mm,总行程约2mm Connected to about 1.1mm, head office about 2mm
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m 5 ~ 14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍 Stainless steel / brass plating
电器寿命 Electrical life	10万次以上 More than 100000 times	按键 Press key	不锈钢/黄铜镀镍 Stainless steel / brass plating
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP65	触点 Touch point	镀银/金 plasticsilver / gold

防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP65，防爆能力IK08。

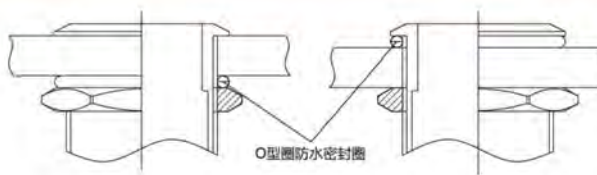
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP65, explosion-proof capability IK08.

内部IP防尘、防水结构



内部防水圈

外部O型密封圈安装方法



O型圈防水密封圈

标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。

The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



激光刻字发光效果图



符号定制举例



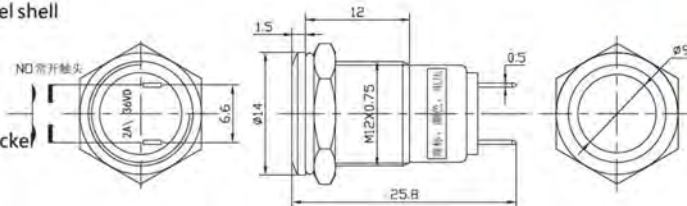
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



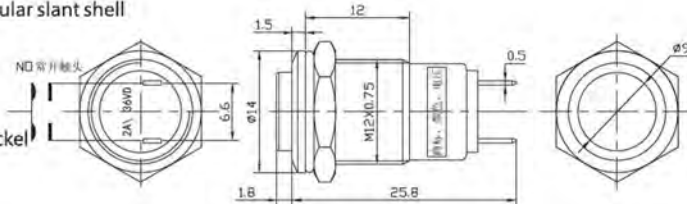
28.12B.1.1.2.0.0.0.2

安装孔直径: $\Phi 12\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
外壳材质: Brass plating nickel
Crust Material:
开关额定值: 1A /DC36V
Switch Rating:
防护等级: IP65 Ik08
Switch Rating:



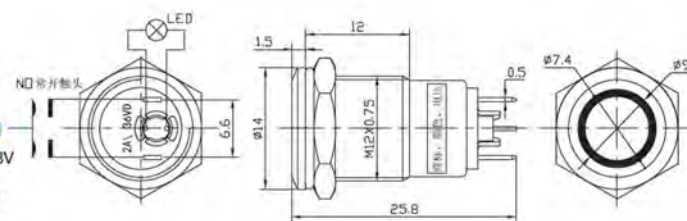
28.12B.2.1.2.0.0.0.2

安装孔直径: $\Phi 12\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
外壳材质: Brass plating nickel
Crust Material:
开关额定值: 1A /DC36V
Switch Rating:
防护等级: IP65 Ik08
Switch Rating:



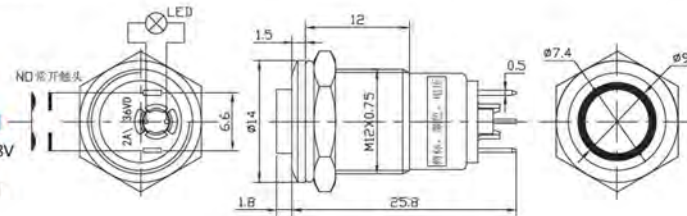
28.12B.1.1.2.2.X.X.2

安装孔直径: $\Phi 12\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色: 
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel
Crust Material:
开关额定值: 1A /DC36V
Switch Rating:
防护等级: IP65 Ik08
Switch Rating:



28.12B.2.1.2.2.X.X.2

安装孔直径: $\Phi 12\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色: 
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel
Crust Material:
开关额定值: 1A /DC36V
Switch Rating:
防护等级: IP65 Ik08
Switch Rating:



JV-12 Series

JV-16 Series

JV-18 Series

JV-22 Series

JV-26 Series

JV-30 Series

JV-40 Series

Indicator Series

实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions

JV-12 Series

JV-16 Series

JV-18 Series

JV-22 Series

JV-25 Series

JV-30 Series

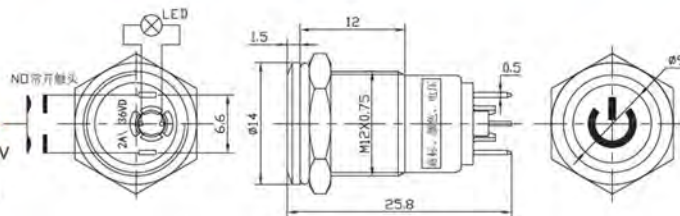
JV-40 Series

Indicator Series



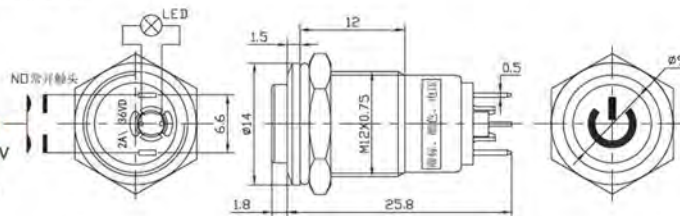
28.12B.1.1.2.3.X.X.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Lock
 Operation Type: Self-Lock
 发光类型: Power Mark
 Luminescence type: Power Mark
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 1A /DC36V
 Switch Rating: 1A /DC36V
 防护等级: IP65 Ik08
 Switch Rating: IP65 Ik08



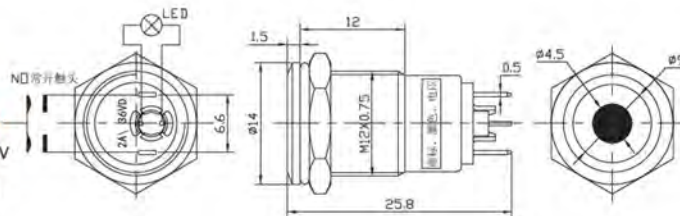
28.12B.2.1.2.3.X.X.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: High planar circular slant shell
 Shape: High planar circular slant shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Lock
 Operation Type: Self-Lock
 发光类型: Power Mark
 Luminescence type: Power Mark
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 1A /DC36V
 Switch Rating: 1A /DC36V
 防护等级: IP65 Ik08
 Switch Rating: IP65 Ik08



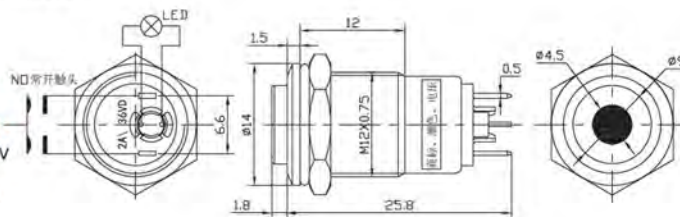
28.12B.1.1.2.1.X.X.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Lock
 Operation Type: Self-Lock
 发光类型: Single point
 Luminescence type: Single point
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 1A /DC36V
 Switch Rating: 1A /DC36V
 防护等级: IP65 Ik08
 Switch Rating: IP65 Ik08



28.12B.2.1.2.1.X.X.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: High planar circular slant shell
 Shape: High planar circular slant shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Lock
 Operation Type: Self-Lock
 发光类型: Single point
 Luminescence type: Single point
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material: Brass plating nickel
 开关额定值: 1A /DC36V
 Switch Rating: 1A /DC36V
 防护等级: IP65 Ik08
 Switch Rating: IP65 Ik08



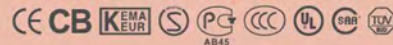
金属按钮特点简介/Metal button feature profile

- 1、28.16A金属按钮是剑威独立研发、创新设计的专利产品;
- 2、可选配接插件连接,保证接触性能,减少浪费人工;
- 3、具有超强的自锁性能与舒适的操作手感;
- 4、具有超强金属质感和高档的外观造型设计、颜色搭配;
- 5、防水、防尘等级可达IP67;
- 6、机械寿命:自复式可达50万次以上·自锁式可达10万次以上;
- 7、LED内置降压电阻,避免焊接,并可随意选择电压,可做双色发光;
- 8、加粗插脚,可靠性更高。

1. 28.16A metal button is the independent research and development, innovation and design patent products.
2. optional connector, ensure contact performance, reduce the waste of labor;3. with strong self locking performance and comfortable operation feel;
4. with a strong metal texture and high-end design, color collocation;
5. waterproof, dust level can reach Ip67;
6. the mechanical life: self compound can reach more than 500000 times, more than 100000 of the self lock type;
7. LED built-in buck resistance, to avoid welding, and can choose the voltage, can do double color light-emitting;8. bold pins, higher reliability.



ISO9001 TS16949 RoHS



Metal Button Switch 金属按钮开关 Φ16mm 16A Series



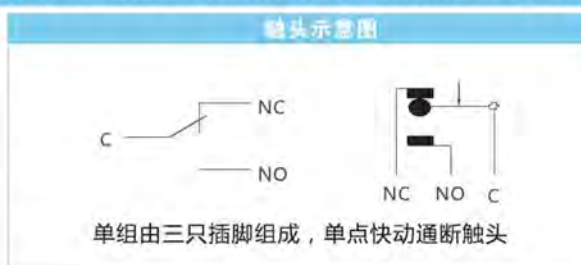
型号说明/Model description

28	○	A	X	X	X	X	X	X	X
剑威代码 JV Code	安装孔直径 (开关 螺纹外径 mm) Mounting hole diam eter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch com- bination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
16			1: 平圆形斜面 外壳 2: 高平圆形斜 面外壳 1: Planar circular slant shell 2: High planar circular slant shell	11: 1NO—1O (NO为常开触头) 11: 1NO—1O (NO is normally open contact)	1: 自复式 2: 自锁式 1: self com- pound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源 标志 0: No light 1: single point 2: ring 3: power source 4: Ring + po- wer symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 3: 不锈钢镀 钛金色 4: 铝合金氧化 (备注颜色) 1: stainless steel 2: brass plating 3: stainless steel tit- anium gold 4: aluminum alloy ox- idation (remark color)

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压 U_i Rated insulation voltage U_i	AC250V
发热电流 I_{th} Heating current I_{th}	4A
额定电压 Rated voltage	DC 6V DC 12V DC 24V DC 36V DC 48V AC 220V
额定电流(A) Rated current	4 3 2.5 2 2 3

开关结构说明/Switch structure description

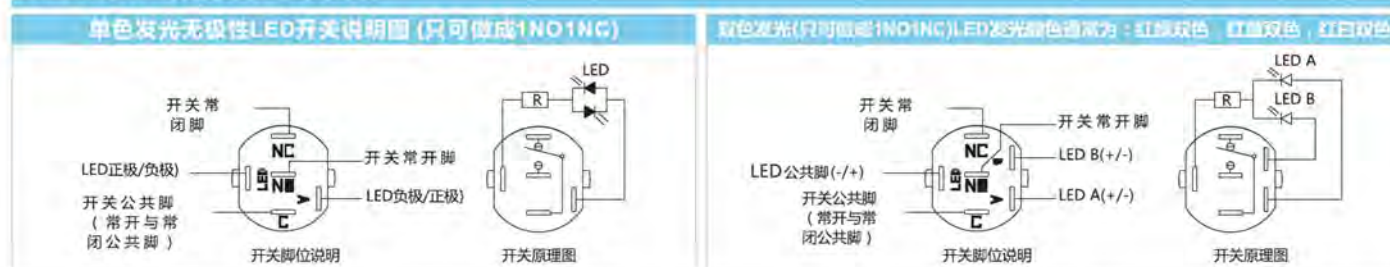


LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	全部内置电阻降压 All internal resistance
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



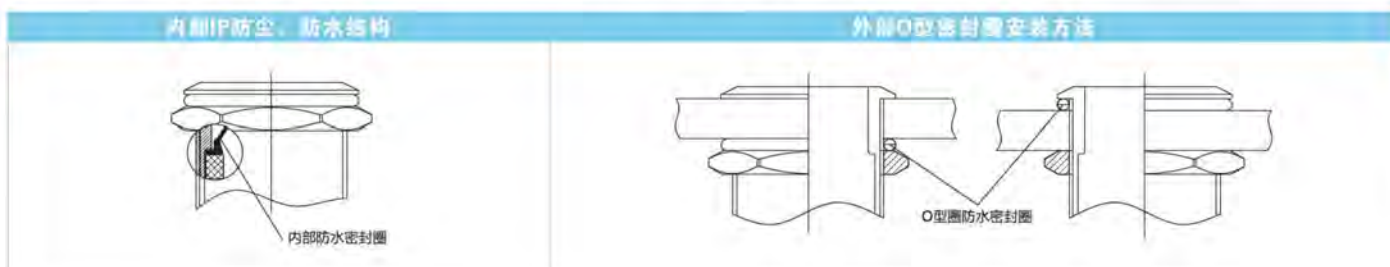
其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	快动单触点 Fast moving single contact	防爆等级 Explosion grade	Ik10 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	2.5~4.5N 2.5~4.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通常约2mm,总行程约3mm Connected to about 2mm, head office about 3mm
绝缘强度 Insulation strength	2000VAC	螺母扭矩 Nut torque	5~14N.m 5~14N.m
环境温度 Ambient temperature	-20℃ ~ +85℃	外壳 Outer shell	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
机械寿命 Mechanical life	50万次以上 More than 500000 times	基座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	Silver alloy Silver alloy

防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及防腐蚀性等特点。防水等级IP67，防爆能力IK10。

Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK10.



标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。
The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.





配套接插件型号说明/The mating connector model description

配套接插件具有快速安装、快速拆卸、方便操作、连接可靠、导电性能优越、保护按钮开关插脚、美观等诸多特点，是按钮开关配套必不可缺的组件。

The mating connector with fast installation, remove the fast, convenient operation, reliable connection, a superior conductivity, button switch pins, beautiful etc. many characteristics, is the button switch KitEssential components.

连接效果图	连接尺寸图
	 <p>可定制各类线束 (18-24AWG) Can customize all kinds of wiring harness (18-24AWG)</p>

注：配套连接器与按钮为分采购，且连接器不单独零售。 Note: the matching connector and the button are purchased separately, and the connector is not retail.



实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



28.16A.1.11.X.0.0.0.X

安装孔直径: $\phi 16\text{mm}$

Diameter:

头部形状: Flat circular bevel shell

Shape:

开关组合: 1NO1NC

Configuration:

操作类型: Self-Lock/Self-Compound

Operation Type:

外壳材质: Brass plating nickel /Stainless steel/plating Ti

Crust Material:

开关额定值: 3A /AC220V

Switch Rating:

触点材质: Silver alloy

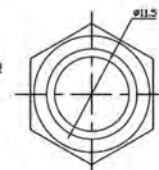
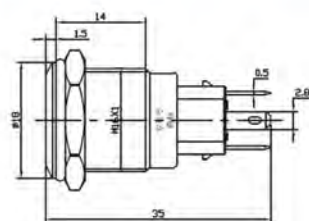
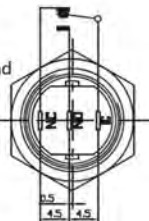
Contact material:

接线方式: Optional Connector

Connection mode:

防护等级: IP67 Ik09

Switch Rating:



28.16A.2.11.X.0.0.0.X

安装孔直径: $\phi 16\text{mm}$

Diameter:

头部形状: High planar circular slant shell

Shape:

开关组合: 1NO1NC

Configuration:

操作类型: Self-Lock/Self-Compound

Operation Type:

外壳材质: Brass plating nickel /Stainless steel/plating Ti

Crust Material:

开关额定值: 3A /AC220V

Switch Rating:

触点材质: Silver alloy

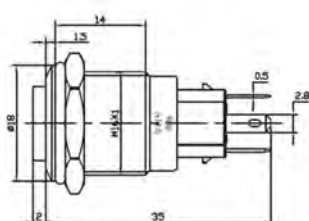
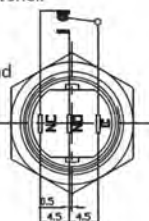
Contact material:

接线方式: Optional Connector

Connection mode:

防护等级: IP67 Ik09

Switch Rating:



28.16A.1.11.X.2.X.X.X

安装孔直径: $\phi 16\text{mm}$

Diameter:

头部形状: Flat circular bevel shell

Shape:

开关组合: 1NO1NC

Configuration:

操作类型: Self-Lock/Self-Compound

Operation Type:

发光类型: Annular

Luminescence type:

发光颜色:

Luminous color:

发光电压: 3V 5V 6V 12V 24V 36V 48V

Luminous voltage:

AC110V AC220V

外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti

Crust Material:

开关额定值: 3A /AC220V

Switch Rating:

触点材质: Silver alloy

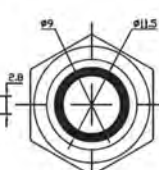
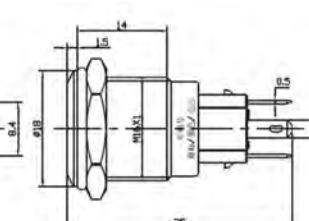
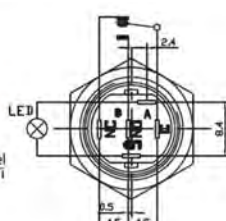
Contact material:

接线方式: Optional Connector

Connection mode:

防护等级: IP67 IK09

Switch Rating:



28.16A.2.11.X.2.X.X.X

安装孔直径: $\phi 16\text{mm}$

Diameter:

头部形状: High planar circular slant shell

Shape:

开关组合: 1NO1NC

Configuration:

操作类型: Self-Lock/Self-Compound

Operation Type:

发光类型: Annular

Luminescence type:

发光颜色:

Luminous color:

发光电压: 3V 5V 6V 12V 24V 36V 48V

Luminous voltage:

AC110V AC220V

外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti

Crust Material:

开关额定值: 3A /AC220V

Switch Rating:

触点材质: Silver alloy

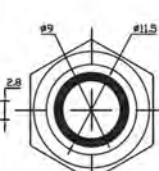
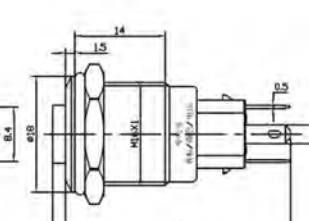
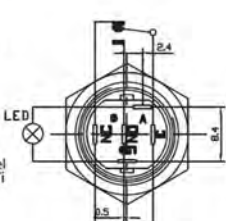
Contact material:

接线方式: Optional Connector

Connection mode:

防护等级: IP67 IK09

Switch Rating:



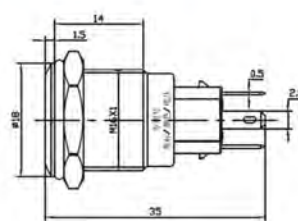
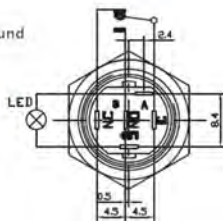
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



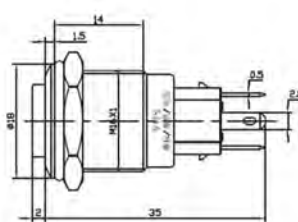
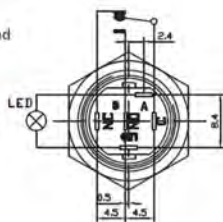
28.16A.1.11.X.3.X.X.X

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色: RGBYWOPR
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /Stainless steel/plating Ti
 开关额定值: 3A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



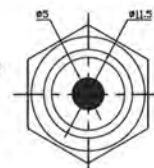
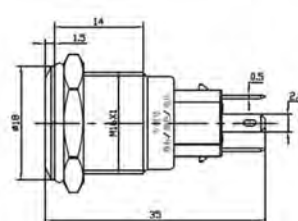
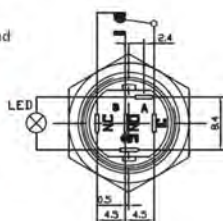
28.16A.2.11.X.3.X.X.X

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO1NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色: RGBYWOPR
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /Stainless steel/plating Ti
 开关额定值: 3A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



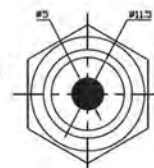
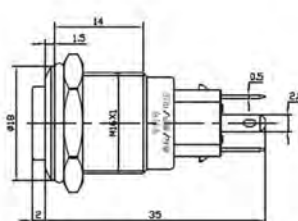
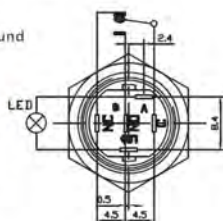
28.16A.1.11.X.1.X.X.X

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Single point
 Luminescence type:
 发光颜色: RGBYWOPR
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /Stainless steel/plating Ti
 开关额定值: 3A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



28.16A.2.11.X.1.X.X.X

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO1NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Single point
 Luminescence type:
 发光颜色: RGBYWOPR
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /Stainless steel/plating Ti
 开关额定值: 3A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



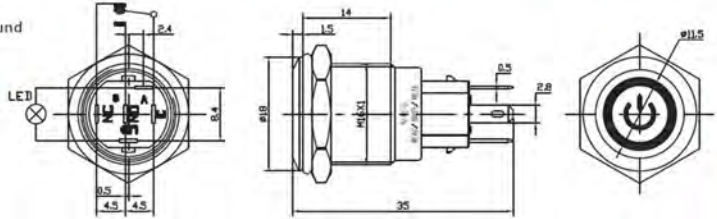
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



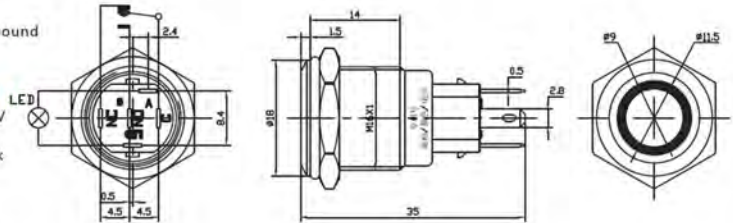
28.16A.1.11.X.4.X.X.X

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular+Power Mark
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel
/stainless steel/plating Ti
Crust Material:
开关额定值: 3A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:



28.16A.1.11.X.2.X.X.X(黑色)

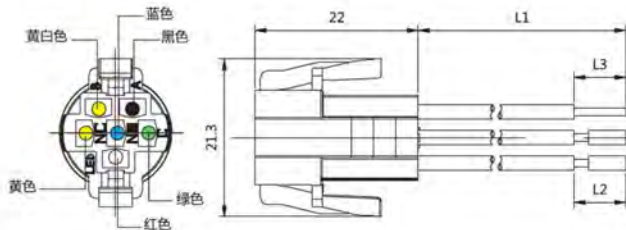
安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Aluminum oxidation Black
Crust Material:
开关额定值: 3A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:



J&V16A Connector



J&V16A Connector



可定制各类线束 (18-24AWG)
Can customize all kinds of wiring harness (18-24AWG)

Metal
Button Switch



ISO9001 TS16949 RoHS
CE CB KEMA ENUR S PCG CCC UL GRS



ISO9001 TS16949 RoHS



Metal Button Switch 金属按钮开关 Φ16mm 16B Series

金属按钮特点简介/Metal button feature profile

- 1、28.16B是剑威独立研发、创新设计，是2015年9月前市场上唯一一款螺丝脚自锁的按钮；
- 2、具有超强的自锁性能与舒适的操作手感；
- 3、具有超强金属质感和高档的外观造型设计、颜色搭配；
- 4、防水、防尘等级可达IP67；
- 5、机械寿命：自复式可达50万次以上，自锁式可达10万次以上；
- 6、LED内置降压电阻，避免焊接，并可随意选择电压；
- 7、较短尺寸设计，自锁式总长仅31mm，自复式仅26.4mm，螺丝脚安装更加方便。

- 1、28.16B is J&V independent research and development, innovation design, is the only one in the front of the market in September 2015, the only one screw pin;
- 2、with strong self locking performance and comfortable operation feel;
- 3、with a strong metal texture and high-end design, color collocation;
- 4、waterproof, dust level can reach IP67;
- 5、the mechanical life: self compound can reach more than 500000 times, more than 100000 of the self lock type;
- 6、LED built-in buck resistance, avoid welding, and can choose the voltage;
- 7、the shorter size design, the total length of the self lock type is only 31mm, only 26.4mm, Screw mounting more convenient.



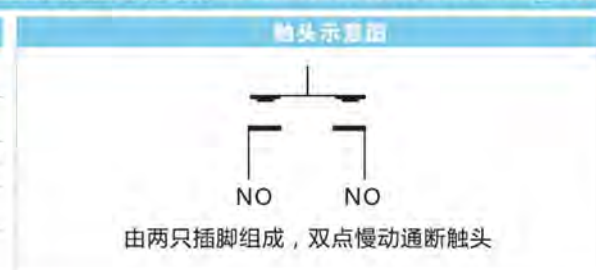
型号说明/Model description

28	○	B	X	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径 (开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material	接线方式 Connection mode
16			1: 平圆形斜面外壳 2: 高平圆形斜面外壳 1: Planar circular slant shell 2: High planar circular slant shell	1: 1NO (NO为常开触头) 1: 1NO (NO is normally open contact)	1: 自复式 2: 自锁式 1: self compound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标 0: No light 1: Single point 2: Annular 3: Power source	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating	1: 接线柱 2: 插脚 1: Terminal 2: Welding

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	3A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	3 2 1.5
电感性负载 Inductive load	1.2 0.8 0.6

开关结构说明/Switch structure description



LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	内置电阻降压 Internal resistance 单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description





其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 <small>Slow moving double contact</small>	防爆等级 Explosion grade	IK09 (针对金属材质) <small>for metal material</small>
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约2.5N <small>About 2.5N</small>
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	总行程:自锁约3.3mm, 自复约2.6mm <small>self-locking, about 2.6mm, self-recovery of about 3.3mm</small>
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m <small>5 ~ 14N.m</small>
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍 <small>Stainless steel / brass plating</small>
电器寿命 Electrical life	5万次以上 <small>More than 50000 times</small>	按键 Press key	不锈钢/黄铜镀镍 <small>Stainless steel / brass plating</small>
机械寿命 Mechanical life	20万次以上 <small>More than 200000 times</small>	底座 Base seat	工程塑料 <small>Engineering</small>
防水等级 Waterproof grade	IP67	触点 Touch point	镀银/金 <small>plasticsilver / gold</small>

防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料,与塑料开关相比,不紧增强了其美观性,外观颜色可多样化,并且大幅度提升了其防尘防水性能、防爆性能及防腐蚀性等特点。防水等级IP67,防爆能力IK09。

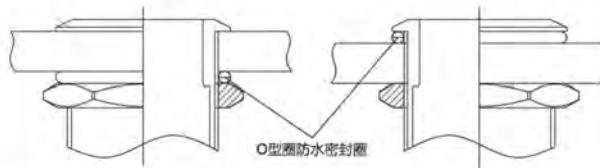
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK09.

内部IP防尘、防水结构



内部防水密封圈

外部O型密封圈安装方法



O型圈防水密封圈

标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案,可根据客户要求定制。具有新颖与美观性,并替代指示标牌的作用。The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



激光刻字发光效果图



符号定制举例



Metal Button Switch



ISO9001 TS16949 RoHS
 CE CB KEMA KEUR S PCG CCC UL GRR

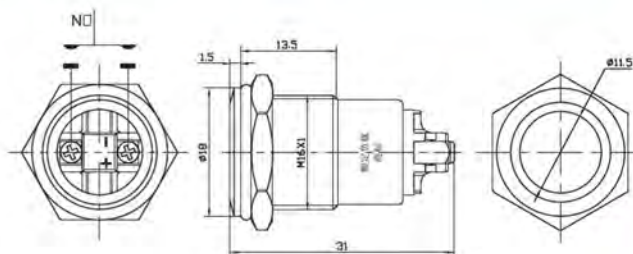
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



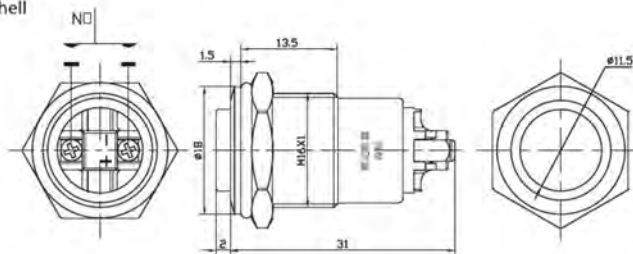
28.16B.1.1.2.0.0.0.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
外壳材质: Brass plating nickel /tainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 Ik09
Switch Rating:



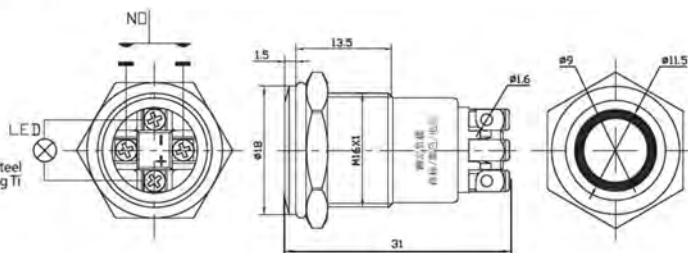
28.16B.2.1.2.0.0.0.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
外壳材质: Brass plating nickel /tainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 Ik09
Switch Rating:



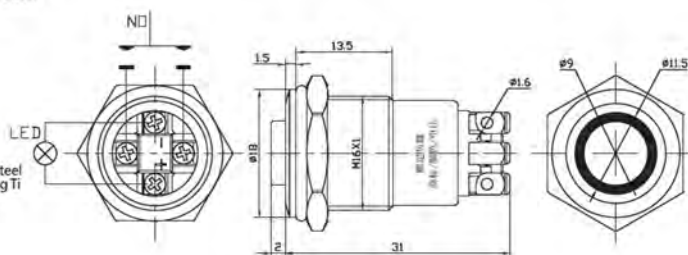
28.16B.1.1.2.2.X.X.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色: 
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



28.16B.2.1.2.2.X.X.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色: 
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



JV-12 Series

JV-16 Series

JV-18 Series

JV-22 Series

JV-26 Series

JV-30 Series

JV-40 Series

Inclusion Series

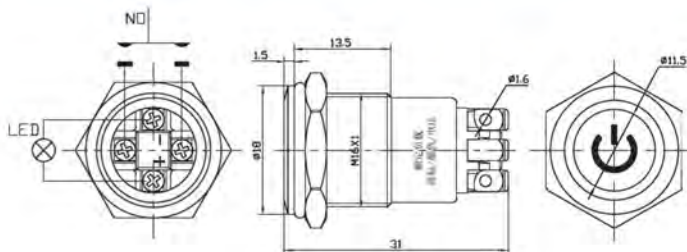
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



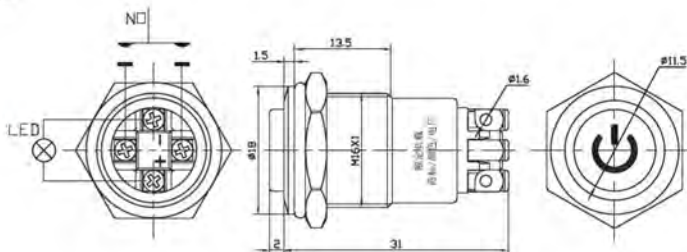
28.16B.1.1.2.3.X.X.2.1

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色: RGBYWGF
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



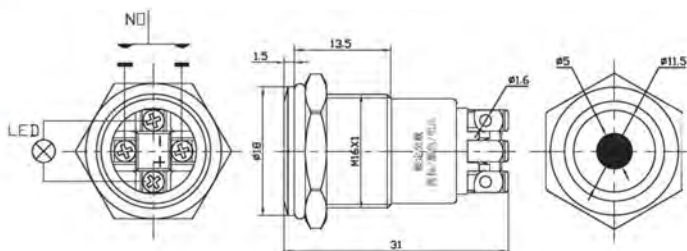
28.16B.2.1.2.3.X.X.2.1

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色: RGBYWGF
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



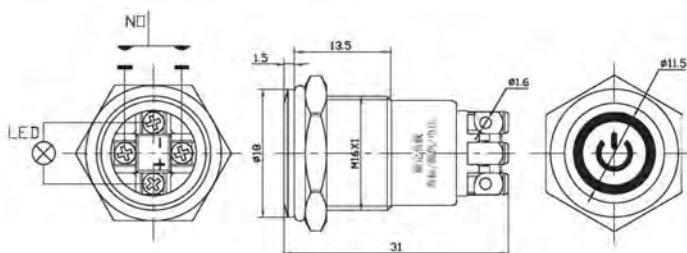
28.16B.1.1.2.1.X.X.2.1

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Single point
 Luminescence type:
 发光颜色: RGBYWGF
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



28.16B.1.1.2.4.X.X.2.1

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Annular+Power Mark
 Luminescence type:
 发光颜色: RGBYWGF
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



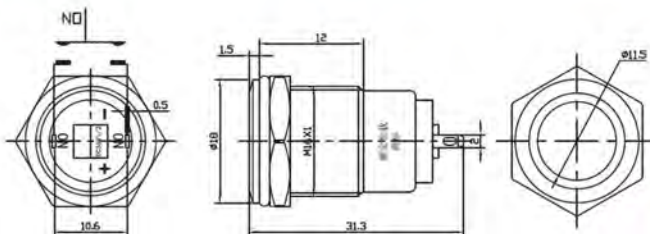
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



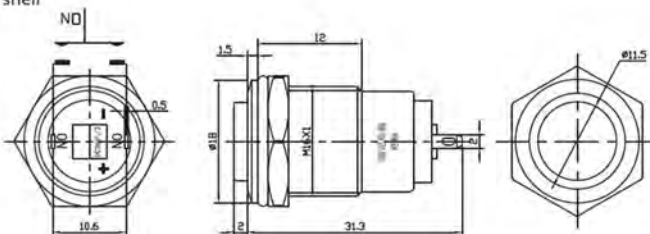
28.16B.1.1.2.0.0.0.2.2

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
外壳材质: Brass plating nickel /tainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Welding
Connection mode:
防护等级: IP67 Ik09
Switch Rating:



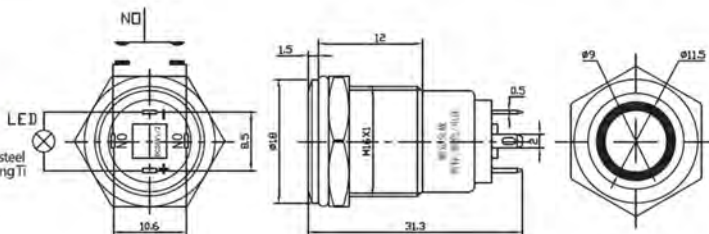
28.16B.2.1.2.0.0.0.2.2

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
外壳材质: Brass plating nickel /tainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Welding
Connection mode:
防护等级: IP67 Ik09
Switch Rating:



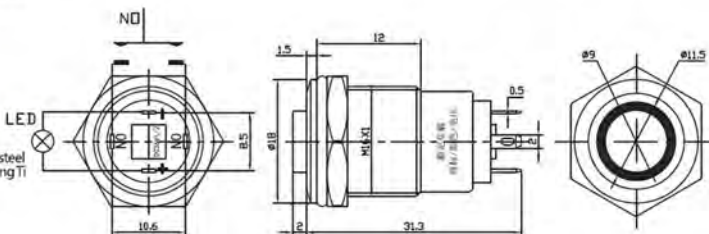
28.16B.1.1.2.2.X.X.2.2

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Welding
Connection mode:
防护等级: IP67 IK09
Switch Rating:



28.16B.2.1.2.2.X.X.2.2

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Welding
Connection mode:
防护等级: IP67 IK09
Switch Rating:



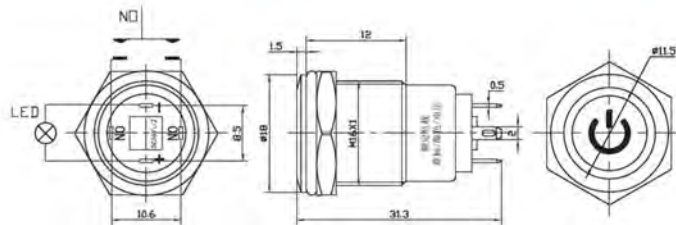
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



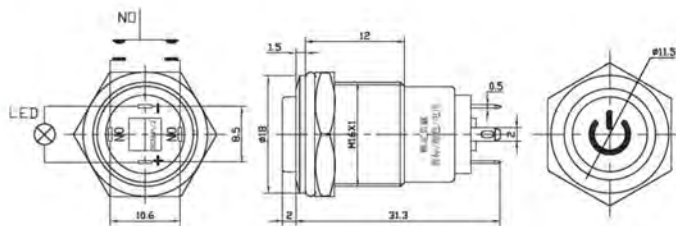
28.16B.1.1.2.3.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 AC110V AC220V
 Luminous voltage:
 外壳材质: Brass plating nickel / stainless steel/plating Ti
 Crust Material:
 开关额定值: 2A / DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Welding
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



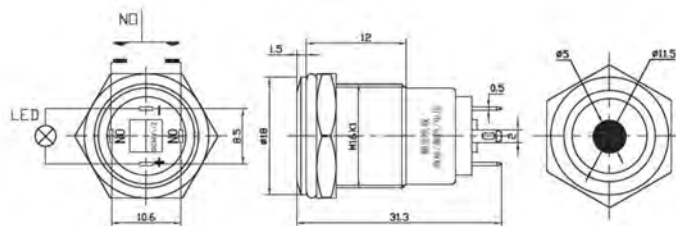
28.16B.2.1.2.3.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 AC110V AC220V
 Luminous voltage:
 外壳材质: Brass plating nickel / stainless steel/plating Ti
 Crust Material:
 开关额定值: 2A / DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Welding
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



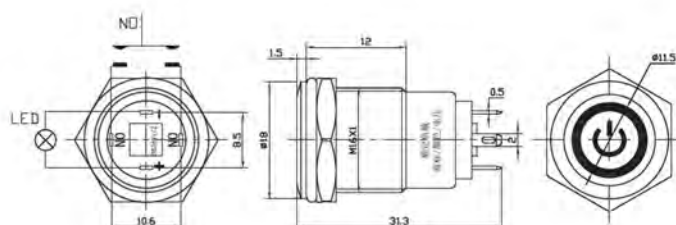
28.16B.1.1.2.1.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Single point
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 AC110V AC220V
 Luminous voltage:
 外壳材质: Brass plating nickel / stainless steel/plating Ti
 Crust Material:
 开关额定值: 2A / DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Welding
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



28.16B.1.1.2.4.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 发光类型: Annular+Power Mark
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 AC110V AC220V
 Luminous voltage:
 外壳材质: Brass plating nickel / stainless steel/plating Ti
 Crust Material:
 开关额定值: 2A / DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Welding
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



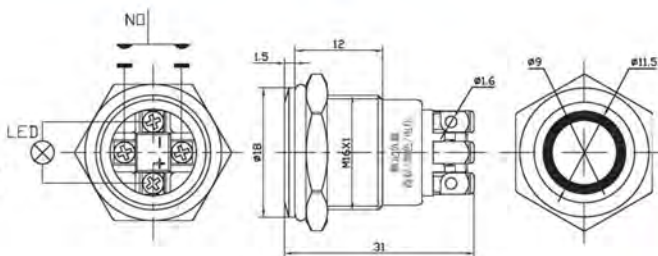
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



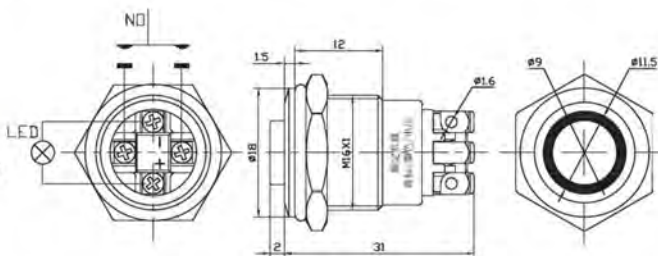
28.16B.1.1.1.2.X.X.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel/Stainless steel
/Aluminum oxidation/plating Ti
Crust Material:
开关额定值: 2A/DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



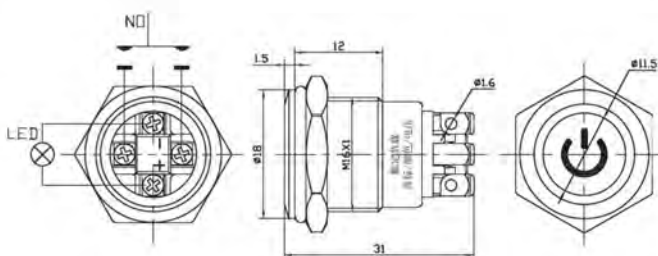
28.16B.2.1.1.2.X.X.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel/Stainless steel
/Aluminum oxidation/plating Ti
Crust Material:
开关额定值: 2A/DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



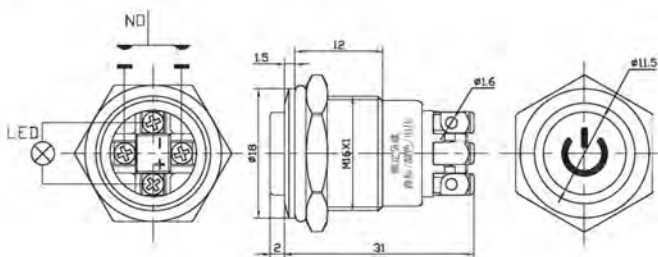
28.16B.1.1.1.3.X.X.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
发光类型: Power Mark
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel
/tainless steel/plating Ti
Crust Material:
开关额定值: 2A/DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



28.16B.2.1.1.3.X.X.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
发光类型: Power Mark
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel
/tainless steel/plating Ti
Crust Material:
开关额定值: 2A/DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



JV-17 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Infrared Series

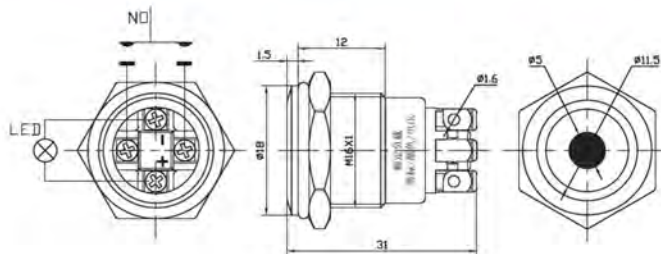
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



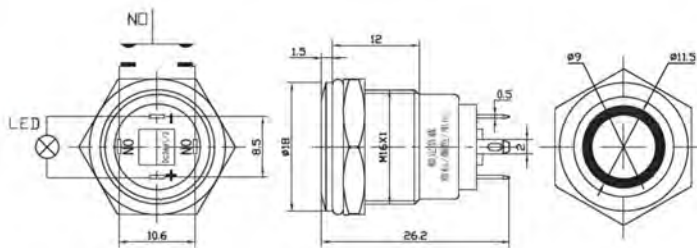
28.16B.1.1.1.1.X.X.2.1

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self compound
 Operation Type:
 发光类型: Single point
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



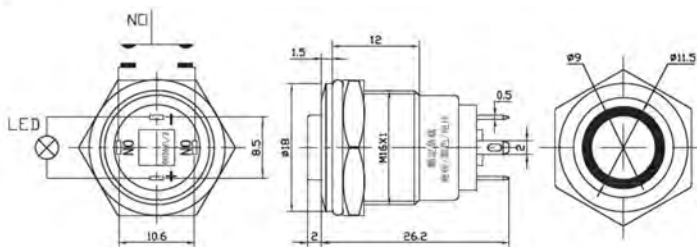
28.16B.1.1.1.2.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self compound
 Operation Type:
 发光类型: Annular
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Welding
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



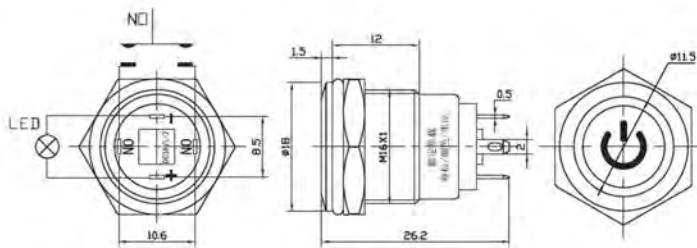
28.16B.2.1.1.2.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self compound
 Operation Type:
 发光类型: Annular
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Welding
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



28.16B.1.1.1.3.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel
 Crust Material:
 /tainless steel/plating Ti
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Welding
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



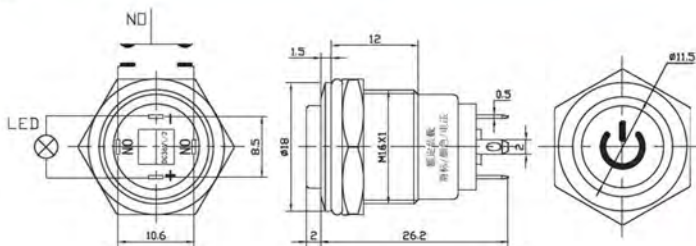
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



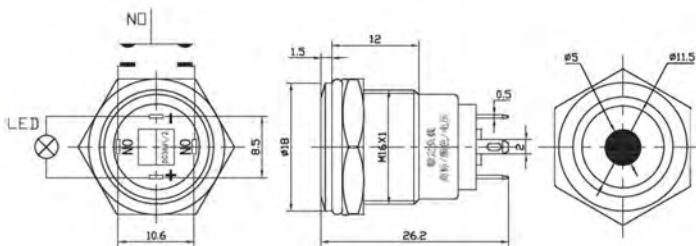
28.16B.2.1.1.3.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
Diameter: $\phi 16\text{mm}$
头部形状: High planar circular slant shell
Shape: High planar circular slant shell
开关组合: 1NO
Configuration: 1NO
操作类型: Self compound
Operation Type: Self compound
发光类型: Power Mark
Luminescence type: Power Mark
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
AC110V AC220V
外壳材质: Brass plating nickel
Crust Material: Brass plating nickel /tainless steel/plating Ti
开关额定值: 2A /DC36V
Switch Rating: 2A /DC36V
触点材质: Silver alloy
Contact material: Silver alloy
接线方式: Welding
Connection mode: Welding
防护等级: IP67 IK09
Switch Rating: IP67 IK09



28.16B.1.1.1.4.X.X.2.2

安装孔直径: $\phi 16\text{mm}$
Diameter: $\phi 16\text{mm}$
头部形状: Flat circular bevel shell
Shape: Flat circular bevel shell
开关组合: 1NO
Configuration: 1NO
操作类型: Self compound
Operation Type: Self compound
发光类型: Single point
Luminescence type: Single point
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
AC110V AC220V
外壳材质: Brass plating nickel
Crust Material: Brass plating nickel /tainless steel/plating Ti
开关额定值: 2A /DC36V
Switch Rating: 2A /DC36V
触点材质: Silver alloy
Contact material: Silver alloy
接线方式: Welding
Connection mode: Welding
防护等级: IP67 IK09
Switch Rating: IP67 IK09



JV-12 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series



ISO9001 TS16949 RoHS



Metal Button Switch 金属按钮开关 Φ16mm 16C Series

金属按钮特点简介 Metal button feature profile

- 1、高寿命；
- 2、防水可以定做IP67；
- 3、良好接触性能。

- 1、 High life;
- 2、 Waterproof can be customized Ip67;
- 3、 Good contact performance.



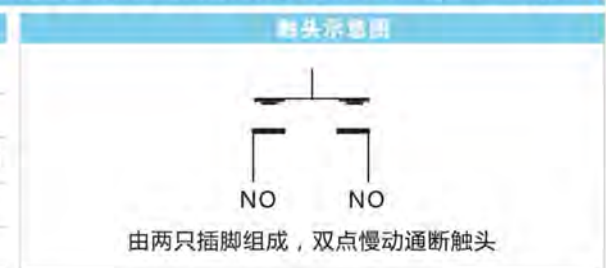
型号说明/Model description

28	○	C	X	X	X	X	X
剑威代码 JV Code	安装孔直径 (开关螺纹外径 mm) Mounting hole diameter (mm) 16	系列号 Serial number	头部形状 Head shape 1: 平圆形斜面外壳 2: 高平圆形斜面外壳 3: 球面 1: Planar circular slant shell 2: High planar circular slant shell 3: Ball	开关组合 Switch combination 1: 1NO (NO为常开触头) 1: 1NO (NO is normally open contact)	操作类型 Operation type 1: 自复式 1: self compound	外壳材质 Shell material 1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating	接线方式 Connection mode 1: 接线柱 2: 插脚 1: Terminal 2: Welding

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	5 3 3
电感性负载 Inductive load	2 1.5 1.5

开关结构说明/Switch structure description



引脚说明/Pin description



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 Slow moving double contact	防爆等级 Explosion grade	IK09 (针对金属材料) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约2.2N About 2.2N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约1.1mm,总行程约2mm Connected to about 1.1mm, head office about 2mm
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m 5 ~ 14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍 Stainless steel / brass plating
电器寿命 Electrical life	20万次以上 More than 200000 times	按键 Press key	不锈钢/黄铜镀镍 Stainless steel / brass plating
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP60/IP67可选	触点 Touch point	镀银/金 plasticsilver / gold

防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP60/IP67，防爆能力IK09。

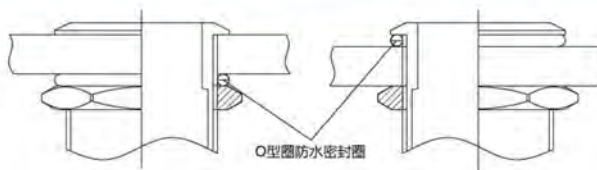
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP60/IP67, explosion-proof capability IK09.

内部IP防尘、防水结构



内部防水密封圈

外部O型密封圈安装方法



O型圈防水密封圈

标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。

The surface of the key metal button switch, can be laser engraving pattern, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



符号定制举例



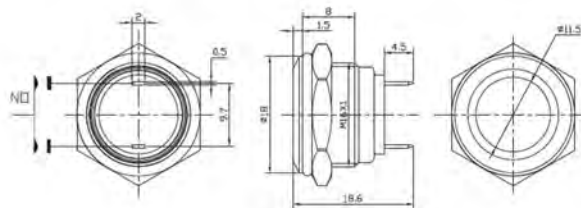
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



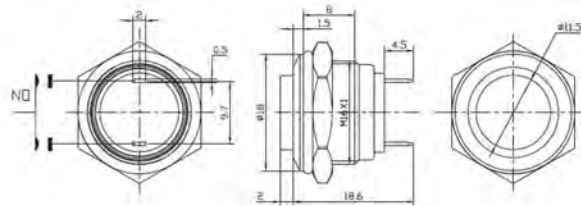
28.16C.1.1.1.2.2

安装孔直径: $\Phi 16\text{mm}$
 Diameter: $\Phi 16\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Compound
 Operation Type: Self-Compound
 外壳材质: Brass plating nickel/tainless steel /plating Ti
 Crust Material: Brass plating nickel/tainless steel /plating Ti
 开关额定值: 2A /DC36V
 Switch Rating: 2A /DC36V
 触点材质: Silver alloy
 Contact material: Silver alloy
 接线方式: Welding
 Connection mode: Welding
 防护等级: IP60(IP67) Ik09
 Switch Rating: IP60(IP67) Ik09



28.16C.2.1.1.2.2

安装孔直径: $\Phi 16\text{mm}$
 Diameter: $\Phi 16\text{mm}$
 头部形状: High planar circular slant shell
 Shape: High planar circular slant shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Compound
 Operation Type: Self-Compound
 外壳材质: Brass plating nickel/tainless steel /plating Ti
 Crust Material: Brass plating nickel/tainless steel /plating Ti
 开关额定值: 2A /DC36V
 Switch Rating: 2A /DC36V
 触点材质: Silver alloy
 Contact material: Silver alloy
 接线方式: Welding
 Connection mode: Welding
 防护等级: IP60(IP67) Ik09
 Switch Rating: IP60(IP67) Ik09



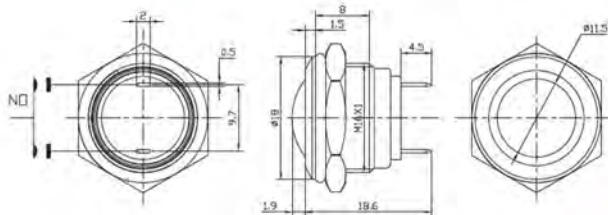
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



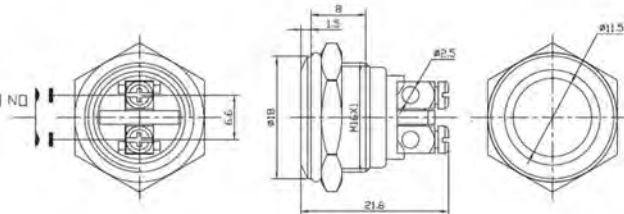
28.16C.3.1.1.2.2

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Ball
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/tainless steel /plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Welding
Connection mode:
防护等级: IP60(IP67) Ik09
Switch Rating:



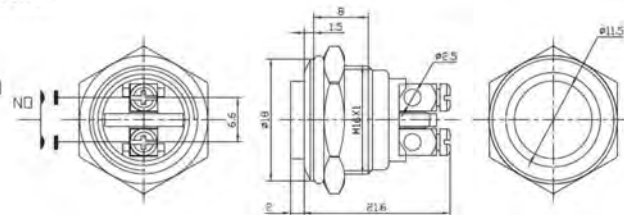
28.16C.1.1.1.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/tainless steel /plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP60(IP67) Ik09
Switch Rating:



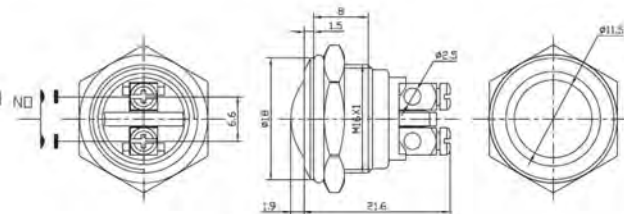
28.16C.2.1.1.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/tainless steel /plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP60(IP67) Ik09
Switch Rating:



28.16C.3.1.1.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Ball
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/tainless steel /plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP60(IP67) Ik09
Switch Rating:



JV-13 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series



ISO9001 TS16949 RoHS



Metal Button Switch 金属按钮开关 Φ16mm 16E Series

金属按钮特点简介/Metal button feature profile

- 1、超短尺寸设计，带自锁功能的开关总长仅25.8mm；
- 2、具有超强的自锁性能与舒适的操作手感；
- 3、具有超强金属质感和高档的外观造型设计、颜色搭配；
- 4、防水、防尘等级可达IP67；
- 5、机械寿命：自复式可达50万次以上，自锁式可达20万次以上；

1. the ultra short size design, with the function of the switch is only 25.8mm;
2. with strong self locking performance and comfortable operation feel;
3. with a strong metal texture and high-end design, color collocation;
4. waterproof, dust level can reach Ip67;
5. the mechanical life: self compound can reach more than 500000 times, more than 200000 of the self lock type;



型号说明/Model description

28	○	E	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径 (开关 螺纹外径 mm) Mounting hole diam eter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch com- bination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
16			1: 平圆形斜面 外壳 2: 高平圆形斜 面外壳 1: Planar circular slant shell 2: High planar circular slant shell	1: 1NO (NO为常开触头) 1: 1NO (NO is normally open contact)	1: 自复式 2: 自锁式 1: self compo- und 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源 标志 0: No light 1: single point 2: ring 3: power source 4: Ring + po- wer symbol	1- R 2- G 3- B 4- Y 5- W 6- □ 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	3A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	3 2 1.5
电感性负载 Inductive load	1.2 0.8 0.6

开关结构说明/Switch structure description



LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W □ P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	<p>外接电阻降压 External resistance</p> <p>单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)</p> <p>双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)</p>
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 Slow moving double contact	防爆等级 Explosion grade	IK09 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约2.5N About 2.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约0.9mm,总行程约3mm Connected to about 0.9mm, head office about 3mm
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m 5 ~ 14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍 Stainless steel / brass plating
电器寿命 Electrical life	10万次以上 More than 100000 times	按键 Press key	不锈钢/黄铜镀镍 Stainless steel / brass plating
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	镀银/金 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	plasticsilver / gold

防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP67，防爆能力IK09。

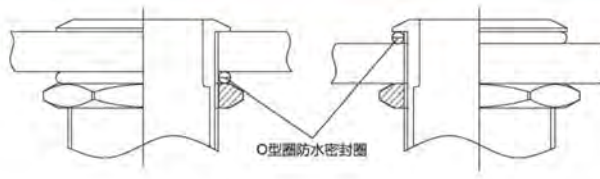
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance. Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK09.

内部IP防尘、防水结构



内部防水密封圈

外部O型密封圈安装方法



O型圈防水密封圈

标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。

The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



激光刻穿发光效果图



符号定制举例



Metal Button Switch



ISO9001 TS16949 RoHS
 CE CB KEMA PCG UL GRR

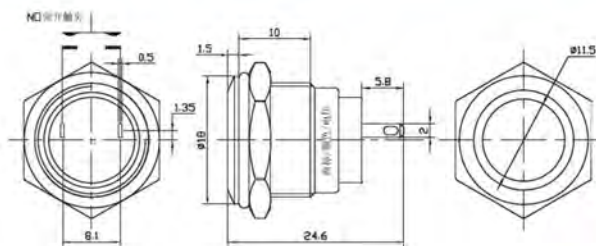
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



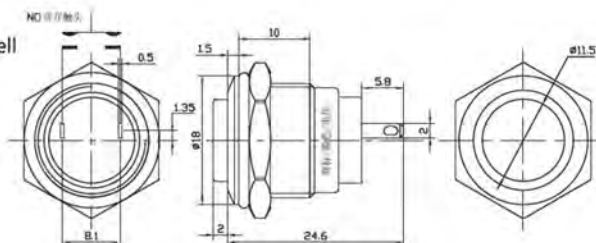
28.16E.1.1.X.0.0.0.X

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
外壳材质: Brass plating nickel/tainless steel /plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
防护等级: IP67 IK09
Switch Rating:



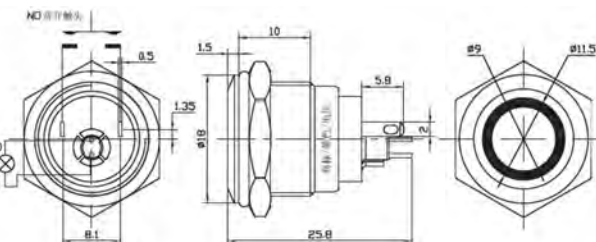
28.16E.2.1.X.0.0.0.X

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
外壳材质: Brass plating nickel/tainless steel /plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
防护等级: IP67 IK09
Switch Rating:



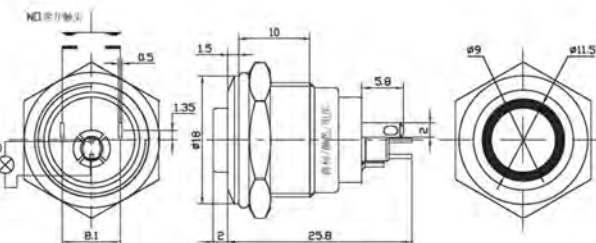
28.16E.1.1.X.2.X.X.X

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色: 
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V (External Resistance)
Luminous voltage:
外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
Crust Material:
开关额定值: 2A/DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



28.16E.2.1.X.2.X.X.X

安装孔直径: $\Phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色: 
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V (External Resistance)
Luminous voltage:
外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
Crust Material:
开关额定值: 2A/DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP67 IK09
Switch Rating:



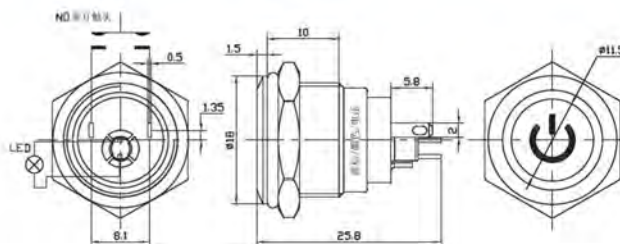
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



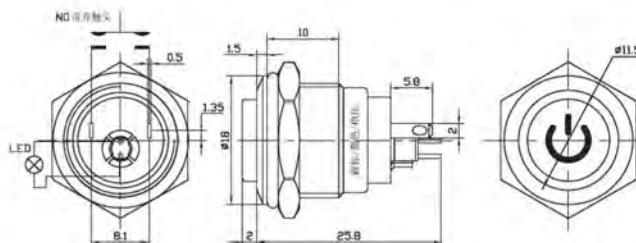
28.16E.1.1.2.3.X.X.X

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock/Self compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V (External Resistance)
 外壳材质: Brass plating nickel/tainless steel
 Crust Material:
 /plating Ti
 开关额定值: 2A/DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



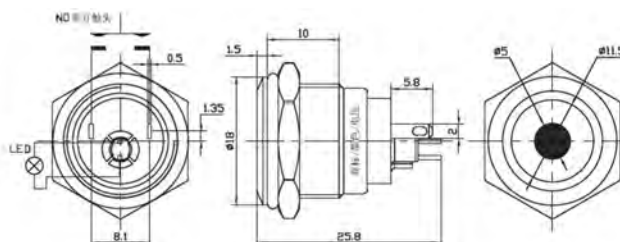
28.16E.2.1.X.3.X.X.X

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock/Self compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V (External Resistance)
 外壳材质: Brass plating nickel/tainless steel
 Crust Material:
 /plating Ti
 开关额定值: 2A/DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



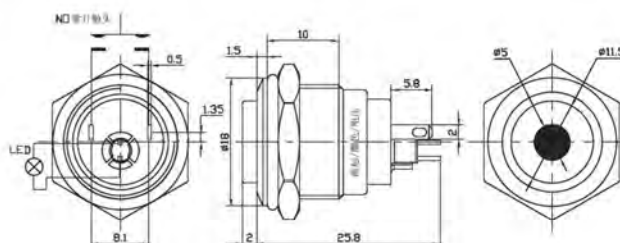
28.16E.1.1.X.1.X.X.X

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock/Self compound
 Operation Type:
 发光类型: Single point (central point)
 Luminescence type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V (External Resistance)
 外壳材质: Brass plating nickel/tainless steel
 Crust Material:
 /plating Ti
 开关额定值: 2A/DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



28.16E.2.1.X.1.X.X.X

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self-Lock/Self compound
 Operation Type:
 发光类型: Single point (central point)
 Luminescence type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V (External Resistance)
 外壳材质: Brass plating nickel/Stainless steel
 Crust Material:
 /plating Ti
 开关额定值: 2A/DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Terminal
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



金属按钮特点简介 Metal button feature profile

- 1、超高性价比；
- 2、防水IP65；
- 3、舒适手感；
- 4、结构简单、运用广泛。

1. Ultra high performance price ratio;
2. Waterproof IP65;
3. Comfortable feel;
4. The structure is simple, the use of a wide range of.



ISO9001 TS16949 RoHS
CE CB KEMA S PC CCC UL SAA TÜV

Metal Button Switch 金属按钮开关 Φ16mm 16F Series



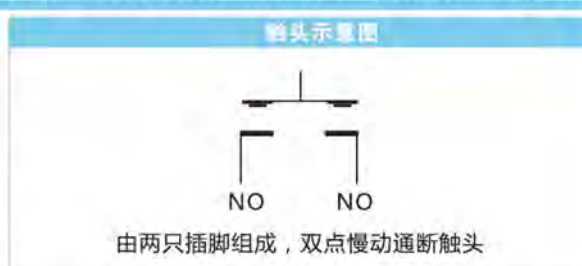
型号说明/Model description

28	0	F	X	X	X	X	X
剑威代码 JV Code	安装孔直径(开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	外壳材质 Shell material	接线方式 Connection mode
	16		1: 平圆形斜面外壳 2: 高平圆形斜面外壳 3: 球面 4: 蘑菇头 1: flat circular bevel shell 2: Gaoping round slant shell 3: Spherical 4: Mushroom head	1: 1NO (No为常开触头) 2: 2NO 1: 1NO (NO is normally open contact) 2: 2NO	1: 自复式 2: 自锁式 1: Self compound 2: Self lock type	1: 不锈钢 2: 黄铜镀镍 3: 塑料 1: Stainless steel 2: Brass plating 3: Plastic	1: 接线柱 2: 插脚 1: Terminal 2: Welding

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	5 3 3
电感性负载 Inductive load	2 1.5 1.5

开关结构说明/Switch structure description



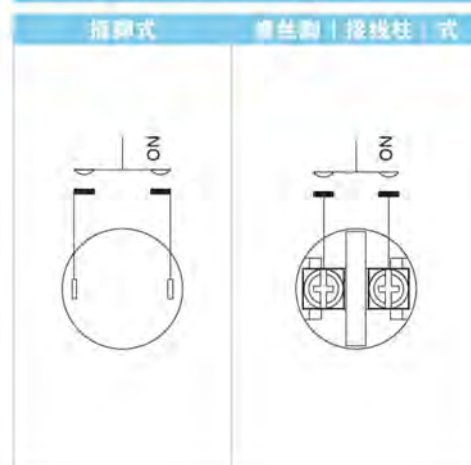
防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及防腐蚀性等特点。防水等级IP65，防爆能力IK09。

Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc. Waterproof grade IP65, explosion-proof capability IK09.



引脚说明/Pin description



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 Slow moving double contact	防爆等级 Explosion grade	Ik09 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约2N About 2N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约1.2mm,总行程约2mm Connected to about 1.2mm, head office about 2mm
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m 5 - 14N.m
环境温度 Ambient temperature	-20℃ ~ +85℃	外壳 Outer shell	不锈钢/Brass plating nickel Stainless steel / brass plating
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/Brass plating nickel Stainless steel / brass plating
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP65	触点 Touch point	镀银/金 plasticsSilver / gold

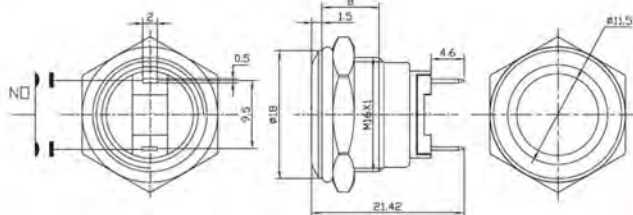
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



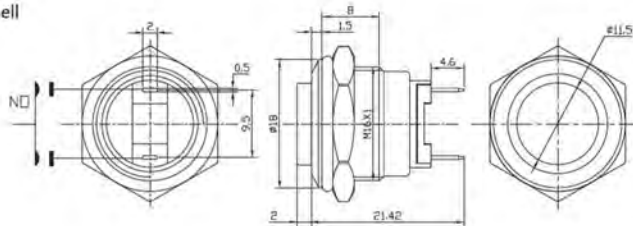
28.16F.1.1.1.2.2

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
接线方式: Welding
Connection mode:
防护等级: IP65 Ik09
Switch Rating:



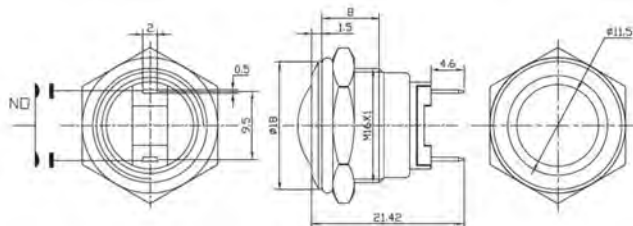
28.16F.2.1.1.2.2

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
接线方式: Welding
Connection mode:
防护等级: IP65 Ik09
Switch Rating:



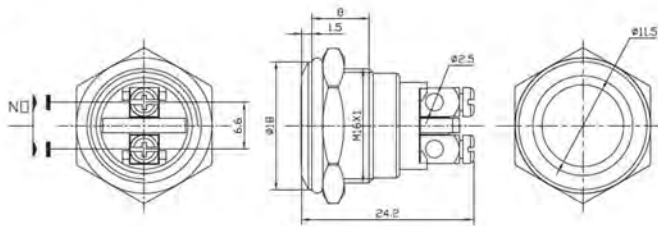
28.16F.3.1.1.2.2

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Ball
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
接线方式: Welding
Connection mode:
防护等级: IP65 Ik09
Switch Rating:



28.16F.1.1.1.2.1

安装孔直径: $\phi 16\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 2A /DC36V
Switch Rating:
接线方式: Terminal
Connection mode:
防护等级: IP65 Ik09
Switch Rating:



JV-17 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Inclination Series

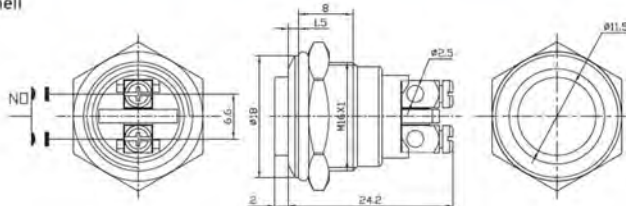
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



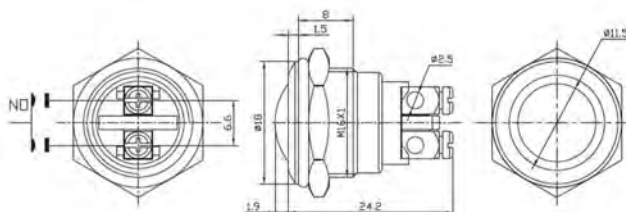
28.16F.2.1.1.2.1

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self compound
 Operation Type:
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 Crust Material:
 开关额定值: 2A /DC36V
 Switch Rating:
 接线方式: Terminal
 Connection mode:
 防护等级: IP65 Ik09
 Switch Rating:



28.16F.3.1.1.2.1

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Ball
 Shape:
 开关组合: 1NO
 Configuration:
 操作类型: Self compound
 Operation Type:
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 Crust Material:
 开关额定值: 2A /DC36V
 Switch Rating:
 接线方式: Terminal
 Connection mode:
 防护等级: IP65 Ik09
 Switch Rating:



ZLQ16A蘑菇钮/Mushroom head

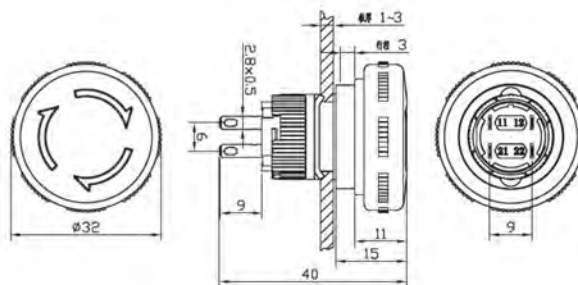
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



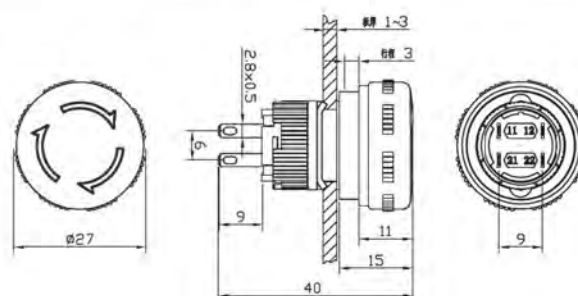
28.16A.4.2.2.3 (大头)

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Mushroom head
 Shape:
 开关组合: 2NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 外壳材质: PC
 Crust Material:
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:



28.16A.4.2.2.3 (小头)

安装孔直径: $\Phi 16\text{mm}$
 Diameter:
 头部形状: Mushroom head
 Shape:
 开关组合: 2NO
 Configuration:
 操作类型: Self-Lock
 Operation Type:
 外壳材质: PC
 Crust Material:
 开关额定值: 2A /DC36V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:



金属按钮特点简介/Metal button feature profile

- 1、28.19A是剑威独立研发、创新设计的专利产品；
- 2、可选配接插件连接，保证接触性能，减少浪费人工；
- 3、具有超强的自锁性能与舒适的操作手感；
- 4、具有超强金属质感和高档的外观造型设计、颜色搭配；
- 5、防水、防尘等级可达IP67；
- 6、机械寿命：自复式可达50万次以上，自锁式可达10万次以上；
- 7、LED内置降压电阻，避免焊接，并可随意选择电压，可做双色发光；
- 8、加粗插脚，可靠性更高。

1. 28.19A is the independent research and development, innovation and design patent product.
2. optional connector, ensure contact performance, reduce the waste of labor;
3. with strong self locking performance and comfortable operation feel;
4. with a strong metal texture and high-end design, color collocation;
5. waterproof, dust level can reach IP67;
6. the mechanical life: self compound can reach more than 500000 times, more than 100000 of the self lock type;
7. LED built-in buck resistance, to avoid welding, and can choose the voltage, can do double color light-emitting;
8. bold pins, higher reliability.



ISO9001 TS16949 RoHS
CE CB KEMA S PCG CCC UL SAA TUV
AB45

Metal Button Switch 金属按钮开关 Φ19mm 19A Series





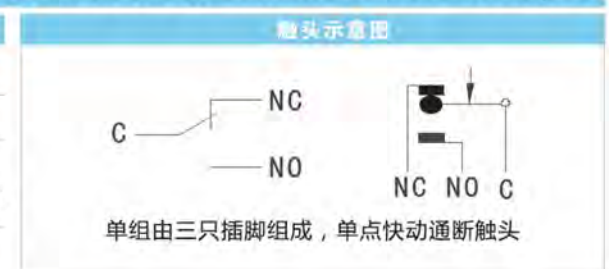
型号说明/Model description

28	⊙	A	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径(开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
19 22 25 30 40			1: 平圆形斜面外壳 2: 高平圆形斜面外壳 1: Planar circular slant shell 2: High planar circular slant shell	11: 1NO1NC 22: 2NO2NC (NO为常开触头, NC为常闭触头) 11: 1NO1NC 22: 2NO2NC (NO is normally open contact, NC is normally closed contact)	1: 自复式 2: 自锁式 1: Self compound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源标志 0: No light 1: single point 2: ring 3: power source 4: Ring + power symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 3: 不锈钢镀钛金色 4: 铝合金氧化(备注颜色) 1: stainless steel 2: brass plating 3: stainless steel titanium gold 4: aluminum alloy oxidation (remark color)

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC 6V DC 12V DC 24V DC 36V DC 48V AC 220V
额定电流(A) Rated current	4 3 2.5 2 2 3

开关结构说明/Switch structure description

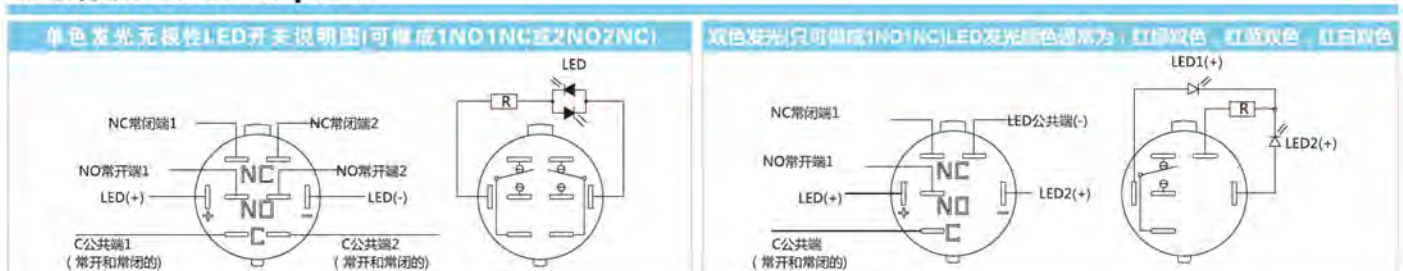


LED灯珠参数/LED lamp parameters

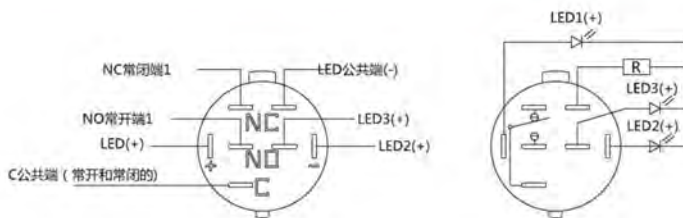
项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
全部内置电阻降压 All internal resistance	
降压方式 Buck mode	<div style="display: flex; justify-content: space-around;"> <div style="width: 30%;"> <p>单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)</p> </div> <div style="width: 30%;"> <p>双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)</p> </div> <div style="width: 30%;"> <p>三色发光电路图：(三路控制) Three color light emitting circuit diagram: (three way control)</p> </div> </div>
参考寿命 Reference life	40000小时(参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



三色发光LED开关说明图(只能做成1NO1NC), LED发光颜色通常为: 红绿蓝三色



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	快动单触点 Fast moving single contact	防爆等级 Explosion grade	Ik10 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	2.5~4.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约2mm, 总行程约3mm Connected to about 2mm, head office about 3mm
绝缘强度 Insulation strength	2000VAC	螺母扭矩 Nut torque	5~14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	Silver alloy

防护与安装说明/Protection and installation instructions

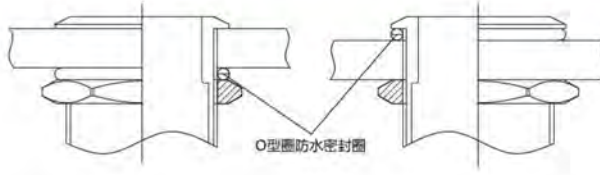
金属按钮开关外壳采用金属材料, 与塑料开关相比, 不紧增强了其美观性, 外观颜色可多样化, 并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP67, 防爆能力IK10。
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK10.

内部IP防尘、防水结构



内部防水密封圈

外部O型密封圈安装方法



O型圈防水密封圈

标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案, 可根据客户要求定制。具有新颖与美观性, 并替代指示标牌的作用。
The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



激光刻穿发光效果图



符号定制举例

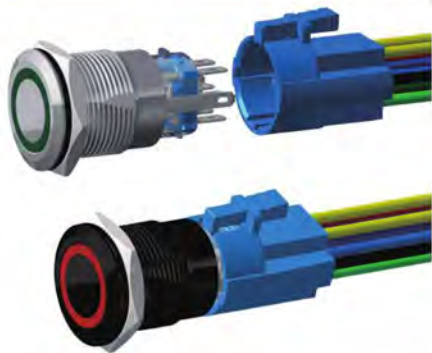


配套接插件型号说明/The mating connector model description

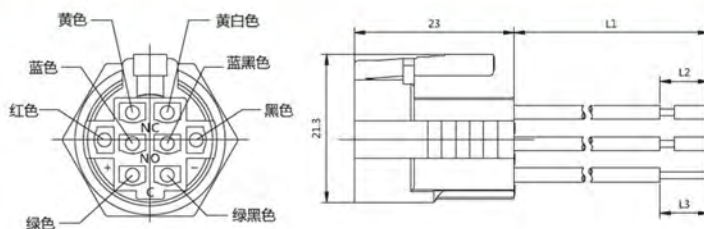
配套接插件具有快速安装、快速拆卸、方便操作、连接可靠、导电性能优越、保护按钮开关插脚、美观等诸多特点，是按钮开关配套必不可缺的组件。

The mating connector with fast installation, remove the fast, convenient operation, reliable connection, a superior conductivity, button switch pins, beautiful etc. many characteristics, is the button switch KitEssential components.

连接效果图



连接尺寸图



可定制各类线束 (18-24AWG)
Can customize all kinds of wiring harness (18-24AWG)

注：配套连接器与按钮为分开采购，且连接器不单独零售。 Note: the matching connector and the button are purchased separately, and the connector is not retail.



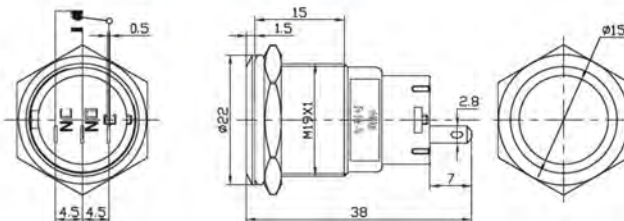
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



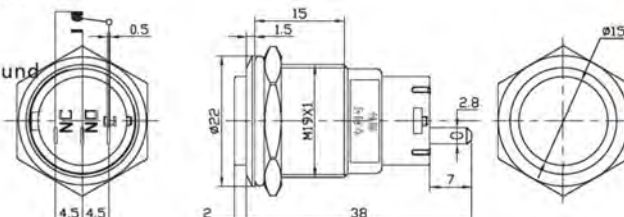
28.19A.1.X.X.0.0.0.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 Ik09
Switch Rating:



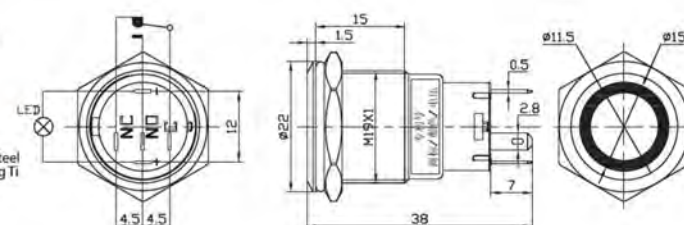
28.19A.2.X.X.0.0.0.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 Ik09
Switch Rating:



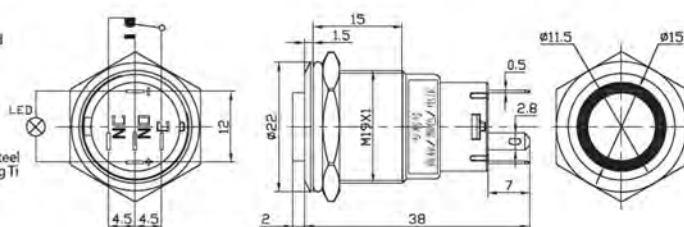
28.19A.1.X.X.2.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:



28.19A.2.X.X.2.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:



JV-13 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Industrial Series

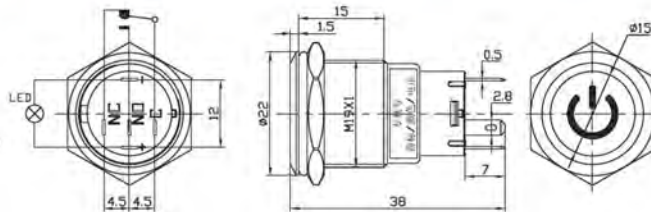
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



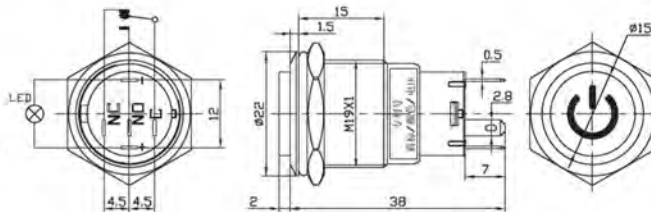
28.19A.1.X.X.3.X.X.X

安装孔直径: $\phi 19\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Power Mark
 Luminescence Type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/Stainless steel
 Crust Material:
 /plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



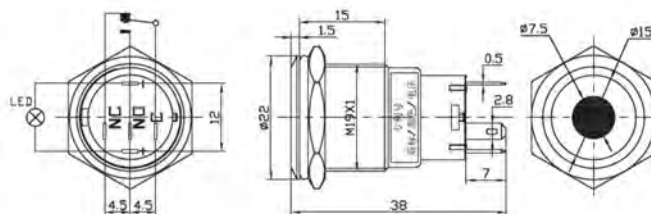
28.19A.2.X.X.3.X.X.X

安装孔直径: $\phi 19\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Power Mark
 Luminescence Type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/Stainless steel
 Crust Material:
 /plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



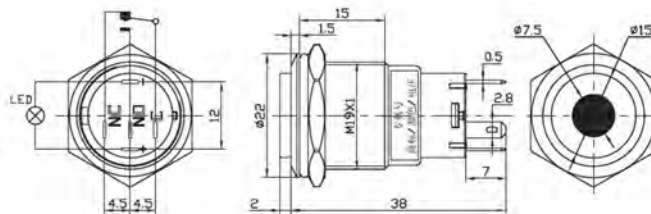
28.19A.1.X.X.1.X.X.X

安装孔直径: $\phi 19\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Single point
 Luminescence Type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/Stainless steel
 Crust Material:
 /plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



28.19A.2.X.X.1.X.X.X

安装孔直径: $\phi 19\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Single point
 Luminescence Type:
 发光颜色:
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/Stainless steel
 Crust Material:
 /plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK09
 Switch Rating:



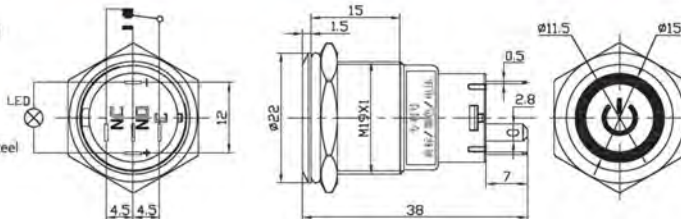
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



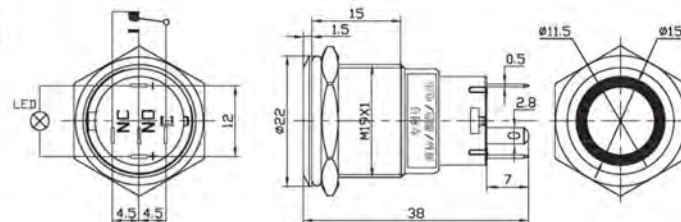
28.19A.1.X.X.4.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular + Power Mark
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel/Stainless steel
/plating Ti
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:



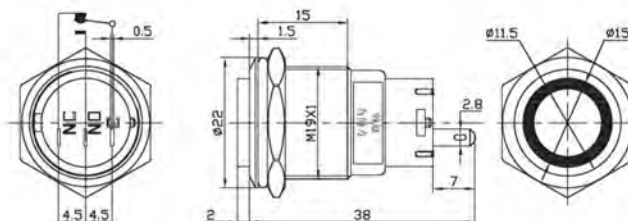
28.19A.1.X.X.2.X.X.X (Black)

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Aluminum oxidation Black
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:



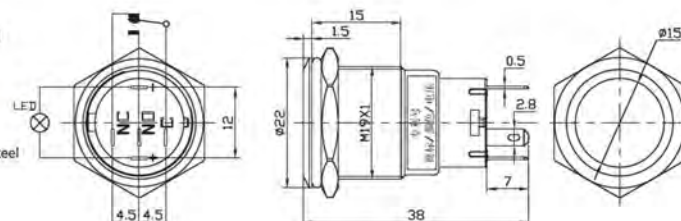
28.19A.1.X.X.2.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular (Customized Symbol)
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Stainless steel/Ti/Golden
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:



28.19A.1.X.X.Arrowhead.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Customized Symbol
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel/Stainless steel
/plating Ti
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK09
Switch Rating:





ISO9001 TS16949 RoHS



Metal Button Switch

金属按钮开关

Φ19mm

19C Series

金属按钮特点简介/Metal button feature profile

- 1、具有简单可靠的动作结构；
 - 2、具有超强的复位能力，机械寿命高达100万次；
 - 3、性价比高，广泛运用在门禁系统、电气设备；
 - 4、可选择焊接脚或螺丝脚的接线方式。
- 1、with a simple and reliable action structure;
 - 2、with a strong ability to reset, mechanical life of up to 1000000 times;
 - 3、cost-effective, widely used in access control systems, electrical equipment;
 - 4、can choose the welding pin or screw pin connection mode.



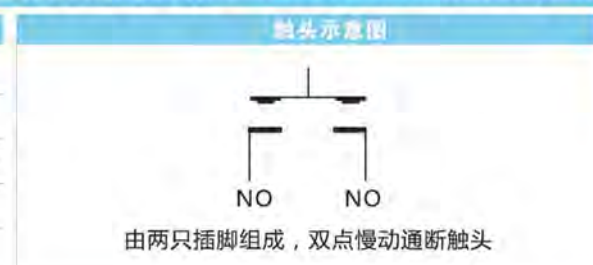
型号说明/Model description

28	○	C	X	X	X	X	X
剑威代码 JV Code	安装孔直径 (开关 螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	外壳材质 Shell material	接线方式 Connection mode
	19		1: 平圆形斜面 外壳 2: 高平圆形斜 面外壳 3: 球面 1: Planar circular slant shell 2: High planar circular slant shell 3: Ball	1: 1NO (NO为常开触头) 1: 1NO (NO is normally open contact)	1: 自复式 1: self compo- und	1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating	1: 接线柱 2: 插脚 1: Terminal 2: Welding

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压 U_i Rated insulation voltage U_i	AC250V
发热电流 I_{th} Heating current I_{th}	6A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	5 4 4
电感性负载 Inductive load	2.5 2 2

开关结构说明/Switch structure description



引脚说明/Pin description



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 Slow moving double contact	防爆等级 Explosion grade	Ik10 (针对金属材料) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约4N About 4N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约1.2mm,总行程约2.5mm Connected to about 1.2mm, head office about 2.5mm
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m 5 ~ 14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍 Stainless steel / brass plating
电器寿命 Electrical life	20万次以上 More than 200000 times	按键 Press key	不锈钢/黄铜镀镍 Stainless steel / brass plating
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP65	触点 Touch point	Silver alloy Silver alloy

防护与安装说明/Protection and installation instructions

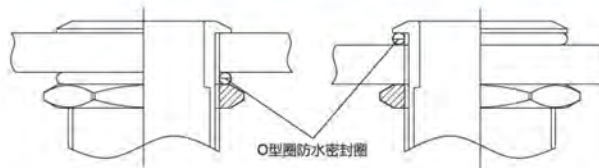
金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP65，防爆能力IK10。

Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP65, explosion-proof capability IK10.

内部IP防尘、防水结构



外部O型密封圈安装方法



标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。

The surface of the key metal button switch, can be laser engraving pattern, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



符号定制举例



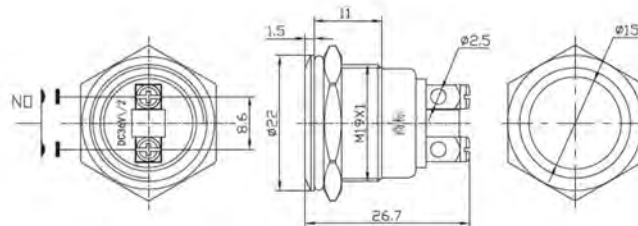
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



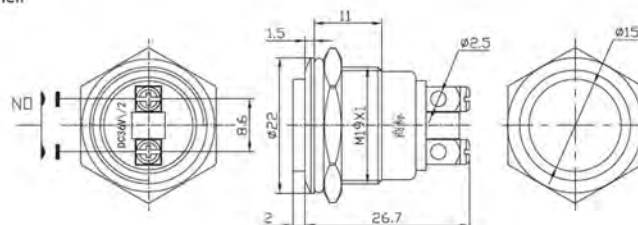
28.19C.1.1.1.2.2

安装孔直径：Φ19mm
Diameter: Φ19mm
头部形状：Flat circular bevel shell
Shape: Flat circular bevel shell
开关组合：1NO
Configuration: 1NO
操作类型：Self compound
Operation Type: Self compound
外壳材质：Brass plating nickel/
Stainless steel/plating Ti
Crust Material: Brass plating nickel/
Stainless steel/plating Ti
开关额定值：2A/DC36V
Switch Rating: 2A/DC36V
触点材质：Silver alloy
Contact material: Silver alloy
接线方式：Welding
Connection mode: Welding
防护等级：IP65 Ik10
Switch Rating: IP65 Ik10



28.19C.2.1.1.2.2

安装孔直径：Φ19mm
Diameter: Φ19mm
头部形状：High planar circular slant shell
Shape: High planar circular slant shell
开关组合：1NO
Configuration: 1NO
操作类型：Self compound
Operation Type: Self compound
外壳材质：Brass plating nickel/
Stainless steel/plating Ti
Crust Material: Brass plating nickel/
Stainless steel/plating Ti
开关额定值：2A/DC36V
Switch Rating: 2A/DC36V
触点材质：Silver alloy
Contact material: Silver alloy
接线方式：Welding
Connection mode: Welding
防护等级：IP65 Ik10
Switch Rating: IP65 Ik10



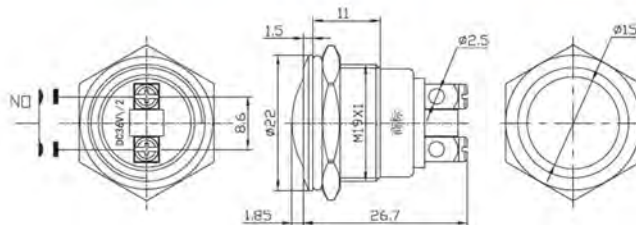
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



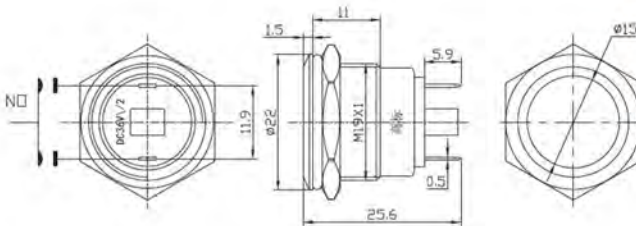
28.19C.3.1.1.2.2

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Ball
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Welding
Connection mode:
防护等级: IP65 Ik10
Switch Rating:



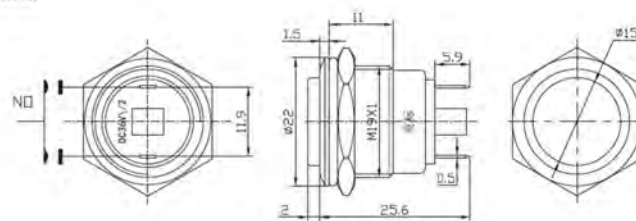
28.19C.1.1.1.2.1

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP65 Ik10
Switch Rating:



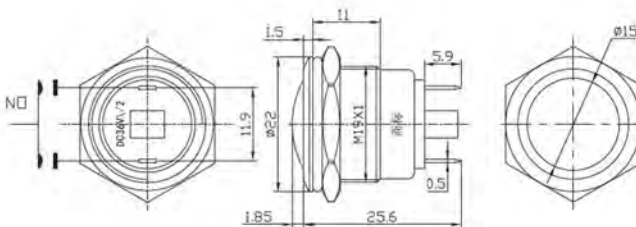
28.19C.2.1.1.2.1

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP65 Ik10
Switch Rating:



28.19C.3.1.1.2.1

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Ball
Shape:
开关组合: 1NO
Configuration:
操作类型: Self compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 2A /DC36V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Terminal
Connection mode:
防护等级: IP65 Ik10
Switch Rating:



JV-17 Series

JV-18 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Infrared Series



ISO9001 TS16949 RoHS
CE CB KEMA UR S PC CCC UL SRB TUV

Metal Button Switch 金属按钮开关 Φ19mm 19E Series

金属按钮特点简介/Metal button feature profile

- 1、28.19E金属按钮超短尺寸设计，带自锁功能的开关总长仅27mm;
- 2、可选配接插件连接，保证接触性能，减少浪费人工;
- 3、可定较大的承受电流，约最高可达AC220V，8A;
- 4、具有超强金属质感和高档的外观造型设计、颜色搭配;
- 5、防水、防尘等级可达IP67;
- 6、超高机械寿命:自复式可达80万次以上，自锁式可达20万次以上;
- 7、LED内置降压电阻，可随意选择电压，可做双色发光。

- 1、28.19E metal button ultra short size design, with the switch length of the lock function is only 27mm; Connect
- 2、optional connector, ensure contact performance, reduce the waste of labor;
- 3、can be set to the larger the current, about the maximum of up to AC220V, 8A;
- 4、with a strong metal texture and high-end design, color collocation;
- 5、waterproof, dust level can reach Ip67;
- 6、ultra high mechanical service life: self compound can reach more than 800000 times, more than 200000 self lock type;
- 7、LED built-in voltage resistance, can choose the voltage, can do double color light-emitting.



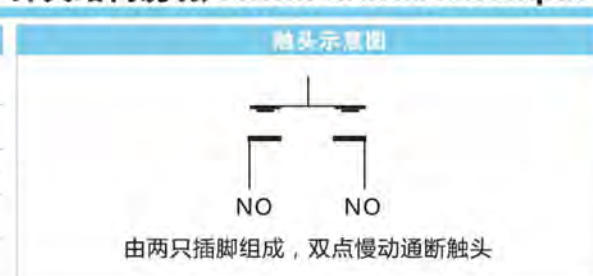
型号说明/Model description

28	○	E	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径 (开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
19			1: 平圆形斜面外壳 2: 高平圆形斜面外壳 1: Planar circular slant shell 2: High planar circular slant shell	1: 1NO (NO为常开触头) 2: 1NO (NO is normally open contact)	1: 自复式 2: z自锁式 1: Self compound 2: Selflock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源标志 0: No light 1: single point 2: ring 3: power source 4: Ring + power symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating

开关额定负载/Switch rated load

开关结构说明/Switch structure description

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	3.5 2.5 3
电感性负载 Inductive load	1.8 1.2 1.5



LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
内置电阻降压 Internal resistance	
降压方式 Buck mode	<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)</p> </div> <div style="width: 45%;"> <p>双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)</p> </div> </div>

参考寿命 Reference life 40000小时 (参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	慢动双触点 Slow moving double contact	防爆等级 Explosion grade	Ik10 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	约2.5N About 2.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约1.2mm,总行程约2.9mm Connected to about 1.2mm, head office about 2.9mm
绝缘强度 Insulation strength	1000VAC	螺母扭矩 Nut torque	5~14N.m 5 ~ 14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍 Stainless steel / brass plating
电器寿命 Electrical life	10万次以上 More than 100000 times	按键 Press key	不锈钢/黄铜镀镍 Stainless steel / brass plating
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	镀银/金 plasticsilver / gold

防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP67，防爆能力IK10。

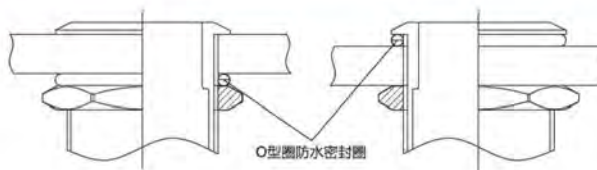
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK10.

内部IP防尘、防水结构



内部防水密封圈

外部O型密封圈安装方法



O型圈防水密封圈

标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。

The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



激光刻穿发光效果图



符号定制举例



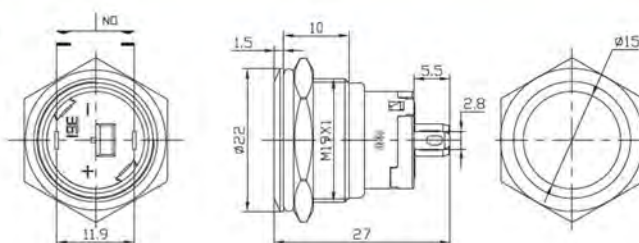
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



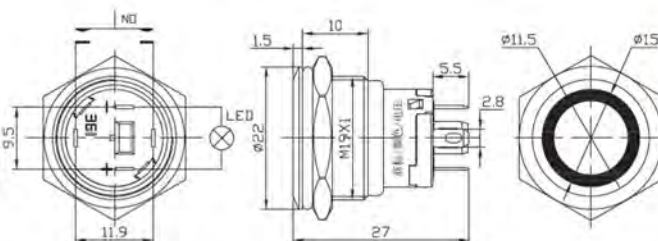
28.19E.1.1.X.0.0.0.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 5A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 Ik10
Switch Rating:



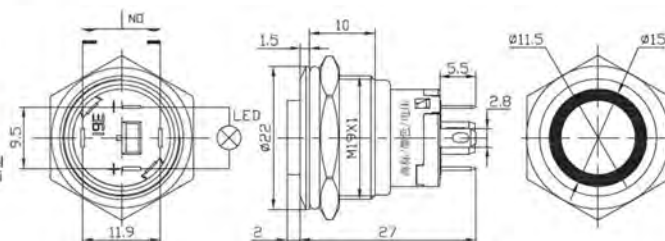
28.19E.1.1.X.2.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material: /Aluminum oxidation/plating Ti
开关额定值: 5A/AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



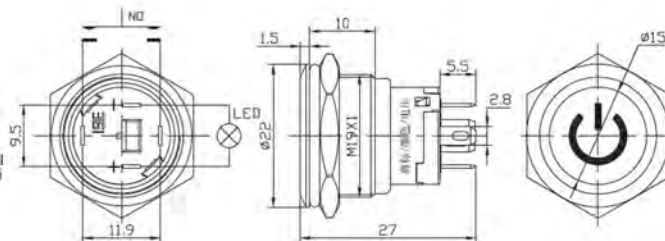
28.19E.2.1.X.2.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material: /Aluminum oxidation/plating Ti
开关额定值: 5A/AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



28.19E.1.1.X.3.X.X.X

安装孔直径: $\phi 19\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO
Configuration:
操作类型: Self-Lock/Self compound
Operation Type:
Power Mark
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material: /Aluminum oxidation/plating Ti
开关额定值: 5A/AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



JV-17 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series



19E系列金属按钮

19E Series Metal Buttons

www.jv-cn.com

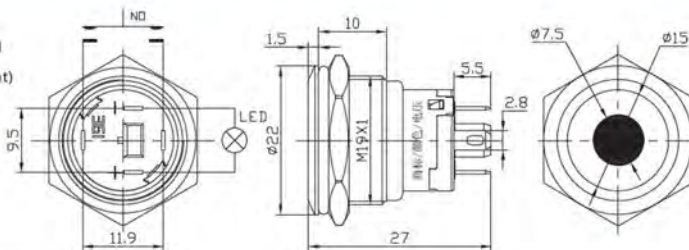
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



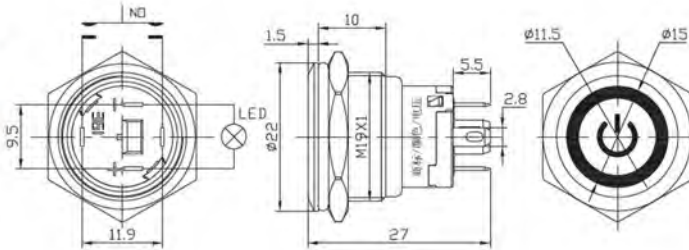
28.19E.1.1.X.1.X.X.X

安装孔直径: $\phi 19\text{mm}$
 Diameter: $\phi 19\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Lock/Self compound
 Operation Type: Self-Lock/Self compound
 发光类型: Single point (central point)
 Luminescence type: Single point (central point)
 发光颜色: RGBYWOPG
 Luminous color: RGBYWOPG
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: AC110V AC220V
 外壳材质: Brass plating nickel/
 Crust Material: Stainless steel/plating Ti
 开关额定值: 5A/AC220V
 Switch Rating: 5A/AC220V
 触点材质: Silver alloy
 Contact material: Silver alloy
 接线方式: Optional Connector
 Connection mode: Optional Connector
 防护等级: IP67 IK10
 Switch Rating: IP67 IK10

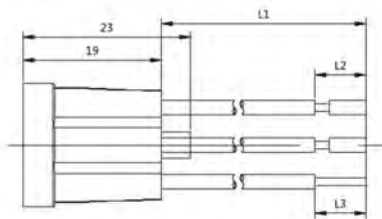
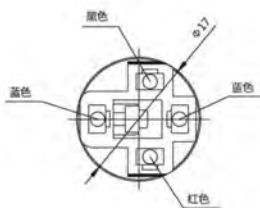


28.19E.1.1.X.4.X.X.X

安装孔直径: $\phi 19\text{mm}$
 Diameter: $\phi 19\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 开关组合: 1NO
 Configuration: 1NO
 操作类型: Self-Lock/Self compound
 Operation Type: Self-Lock/Self compound
 发光类型: Annular + Power Mark
 Luminescence type: Annular + Power Mark
 发光颜色: RGBYWOPG
 Luminous color: RGBYWOPG
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: AC110V AC220V
 外壳材质: Brass plating nickel/
 Crust Material: Stainless steel/plating Ti
 开关额定值: 5A/AC220V
 Switch Rating: 5A/AC220V
 触点材质: Silver alloy
 Contact material: Silver alloy
 接线方式: Optional Connector
 Connection mode: Optional Connector
 防护等级: IP67 IK10
 Switch Rating: IP67 IK10



J&V19E Connector



可定制各类线束 (18-24AWG)

Can customize all kinds of wiring harness (18-24AWG)

Metal Button Switch



ISO9001 TS16949 RoHS
 CE CB KEMA KEUR S PCG CCC UL GRR

金属按钮特点简介/Metal button feature profile

- 1、28.22A是剑威独立研发、创新设计的专利产品;
- 2、可选配接插件连接,保证接触性能,减少浪费人工;
- 3、具有超强的自锁性能与舒适的操作手感;
- 4、具有超强金属质感和高档的外观造型设计、颜色搭配;
- 5、防水、防尘等级可达IP67;
- 6、机械寿命:自复式可达50万次以上,自锁式可达10万次以上;
- 7、LED内置降压电阻,避免焊接,并可随意选择电压,可做双色发光;
- 8、加粗插脚,可靠性更高。

1. 28.22A is the independent research and development, innovation and design patent products;
2. optional connector, ensure contact performance, reduce the waste of labor;
3. with strong self locking performance and comfortable operation feel;
4. with a strong metal texture and high-end design, color collocation;
5. waterproof, dust level can reach IP67;
6. the mechanical life: self compound can reach more than 500000 times, more than 100000 of the self lock type;
7. LED built-in buck resistance, to avoid welding, and can choose the voltage, can do double color light-emitting; 8. bold pins, higher reliability.



ISO9001 TS16949 RoHS
CE CB KEMA S PCG CCC UL SAA TUV

Metal Button Switch 金属按钮开关 Φ22mm 22A Series



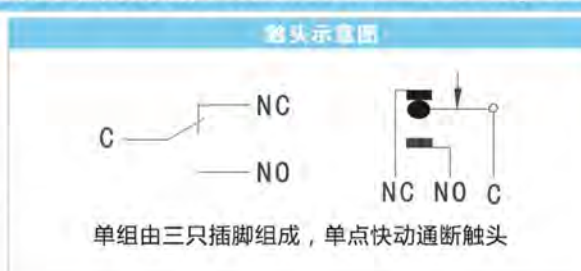
型号说明/Model description

28	□	A	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径(开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
19 22 25 30 40			1: 平圆形斜面外壳 2: 高平圆形斜面外壳 1: Planar circular slant shell 2: High planar circular slant shell	11: 1NO1NC 22: 2NO2NC (NO为常开触头, NC为常闭触头) 11: 1NO1NC 22: 2NO2NC (NO is normally open contact, NC is normally closed contact)	1: 自复式 2: 自锁式 1: Self compound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源标志 0: No light 1: single point 2: ring 3: power source 4: Ring + power symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 3: 不锈钢镀钛金色 4: 铝合金氧化(备注颜色) 1: stainless steel 2: brass plating 3: stainless steel titanium gold 4: aluminum alloy oxidation (remark color)

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC 6V DC 12V DC 24V DC 36V DC 48V AC 220V
额定电流(A) Rated current	4 3 2.5 2 2 3

开关结构说明/Switch structure description

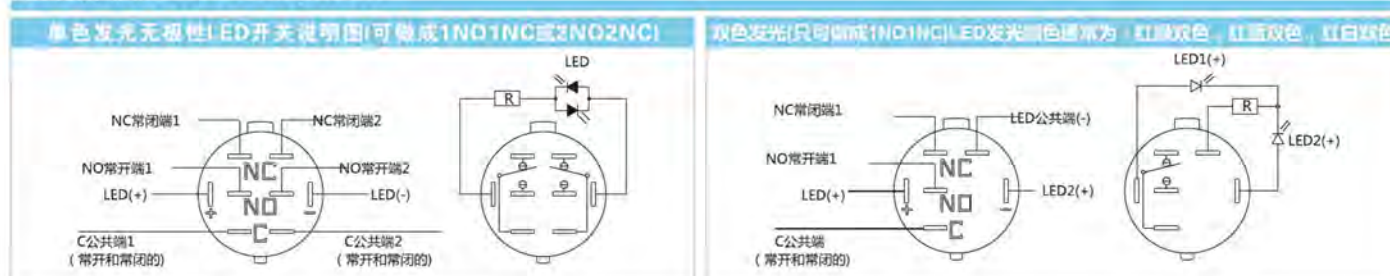


LED灯珠参数/LED lamp parameters

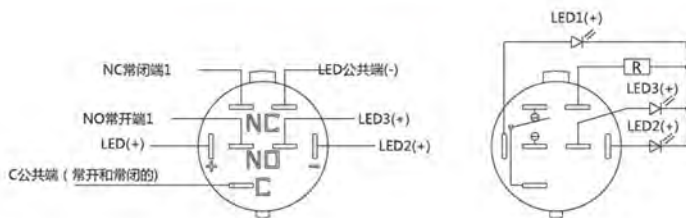
项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
全部内置电阻降压 All internal resistance	
降压方式 Buck mode	<div style="display: flex; justify-content: space-around;"> <div style="width: 30%;"> <p>单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)</p> </div> <div style="width: 30%;"> <p>双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)</p> </div> <div style="width: 30%;"> <p>三色发光电路图：(三路控制) Three color light emitting circuit diagram: (three way control)</p> </div> </div>
参考寿命 Reference life	40000小时(参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



三色发光LED开关说明图(只可组成1NO1NC), LED发光颜色通常为: 红绿蓝三色



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	快动单触点 Fast moving single contact	防爆等级 Explosion grade	Ik10 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	2.5~4.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约2mm, 总行程约3mm Connected to about 2mm, head office about 3mm
绝缘强度 Insulation strength	2000VAC	螺母扭矩 Nut torque	5~14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	Silver alloy

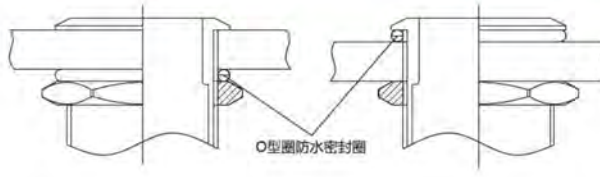
防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料, 与塑料开关相比, 不紧增强了其美观性, 外观颜色可多样化, 并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP67, 防爆能力IK10。
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK10.

内部IP防尘、防水结构



外部O型密封圈安装方法



标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案, 可根据客户要求定制。具有新颖与美观性, 并替代指示标牌的作用。
The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



激光刻穿发光效果图



符号定制举例



配套接插件型号说明/The mating connector model description

配套接插件具有快速安装、快速拆卸、方便操作、连接可靠、导电性能优越、保护按钮开关插脚、美观等诸多特点，是按钮开关配套必不可缺的组件。

The mating connector with fast installation, remove the fast, convenient operation, reliable connection, a superior conductivity, button switch pins, beautiful etc. many characteristics, is the button switch KitEssential components.

连接效果图	连接尺寸图
	<p>可定制各类线束 (18-24AWG) Can customize all kinds of wiring harness (18-24AWG)</p>

注：配套连接器与按钮为分采购，且连接器不单独零售。 Note: the matching connector and the button are purchased separately, and the connector is not retail.



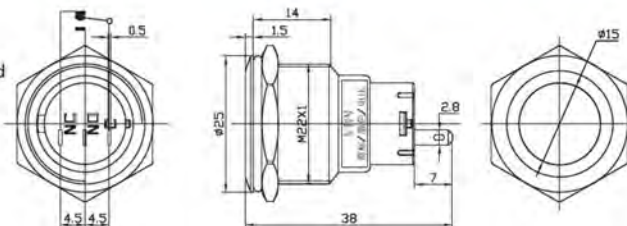
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



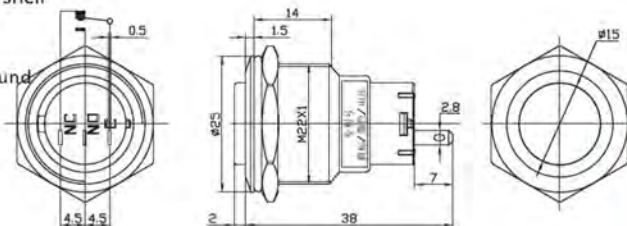
28.22A.1.X.X.0.0.0.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 Ik10
Switch Rating:



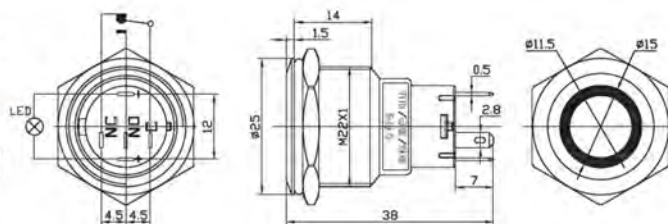
28.22A.2.X.X.0.0.0.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 Ik10
Switch Rating:



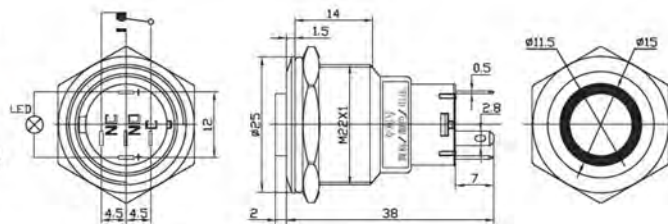
28.22A.1.X.X.2.X.X.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel
/Aluminum oxidation/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



28.22A.2.X.X.2.X.X.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel
/Aluminum oxidation/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



实物展示/Physical display

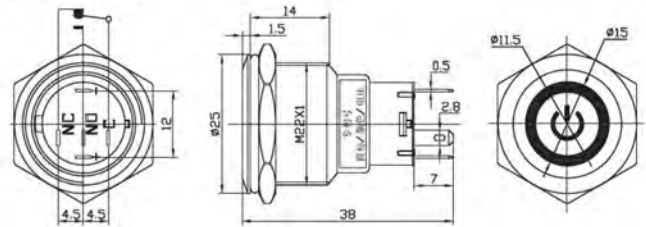
外形及安装尺寸/Dimensions and installation dimensions



28.22A.1.X.X.4.X.X.1

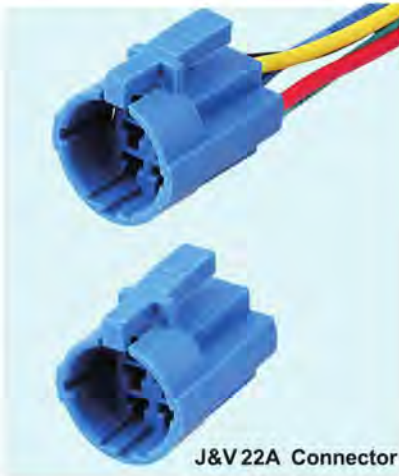
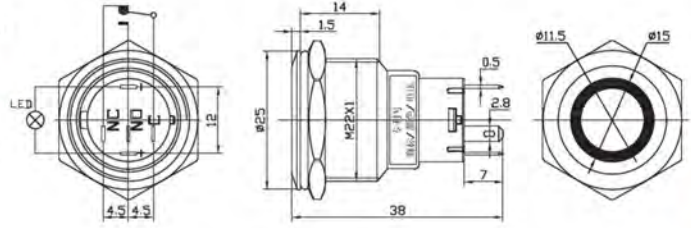
安装孔直径: $\phi 22\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular+Power Mark
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:

Brass plating nickel/
Stainless steel/plating Ti

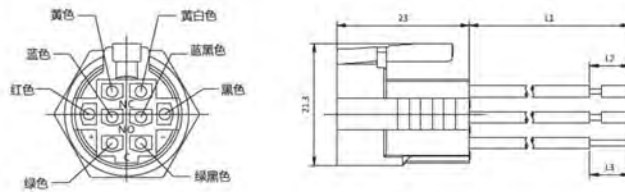


28.22A.1.X.X.2.X.X.1

安装孔直径: $\phi 22\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
外壳材质: Aluminum oxidation/Golden
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



J&V 22A Connector



可定制各类线束 (18-24AWG)
Can customize all kinds of wiring harness (18-24AWG)

Metal
Button Switch



ISO9001 TS16949 RoHS
CE CB KEMA S PC CCC UL SAA

JV-17 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series



ISO9001 TS16949 RoHS
CE CB KEMA PC UL SNE TÜV
AB45

Metal Button Switch 金属按钮开关 Φ22mm 22B Series

金属按钮特点简介/Metal button feature profile

通过剑威研发改良后的金属按钮开关具有以下特点：

- 1、具有超强的自锁性能与舒适的操作手感；
- 2、具有超强金属质感和高档的外观造型设计、颜色搭配；
- 3、机械寿命最高可达50万次以上，质量保障；
- 4、可配备可靠的接插件进行可靠连接，减少人工操作与焊接损坏

Through the development and improvement of the J&V metal button switch has the following characteristics:

- 1, with strong self locking performance and comfortable operation feel;
- 2, with a strong metal texture and high-end design, color collocation;
- 3, the mechanical life of the highest up to 500000 times, quality assurance;

型号说明/Model description

28	○	B	X	X	X	X	X	X	X
剑威代码 JV Code	安装孔直径(开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
	22		1: 平圆形斜面外壳 2: 高平圆形斜面外壳 1: Planar circular slant shell 2: High planar circular slant shell	11: 1NO1NC (NO为常开触头, NC为常闭触头) 11: 1NO1NC (NO is normally open contact, NC is normally closed contact)	1: 自复式 2: 自锁式 1: Self compound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源标志 0: No light 1: single point 2: ring 3: power source 4: Ring + power symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 3: 不锈钢镀钛金色 4: 铝合金氧化(备注颜色) 1: stainless steel 2: brass plating 3: stainless steel titanium gold 4: aluminum alloy oxidation (remark color)

开关额定负载/Switch rated load

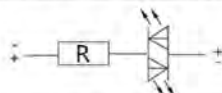
项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC12V DC24V DC36V AC220V
电阻性负载 Resistive load	3.5 3 2.5 3
电感性负载 Inductive load	2 1.5 1.2 1.5

开关结构说明/Switch structure description



LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠, 冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	全部内置电阻降压, LED不分正负极 All internal resistance, LED is not positive and negative pole



参考寿命 Reference life 40000小时(参考值) 40000 hours (reference value)

注: 如需其它类型LED可以定做, 或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	快动单触点 Fast moving single contact	防爆等级 Explosion grade	Ik10(针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	2.5~3.5N 2.5~3.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约1.5mm, 总行程约3mm Connected to about 1.5mm, head office about 3mm
绝缘强度 Insulation strength	2000VAC	螺母扭矩 Nut torque	5~14N.m 5~14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
机械寿命 Mechanical life	10万次以上 More than 100000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP65	触点 Touch point	Silver alloy Silver alloy

防护与安装说明/Protection and installation instructions

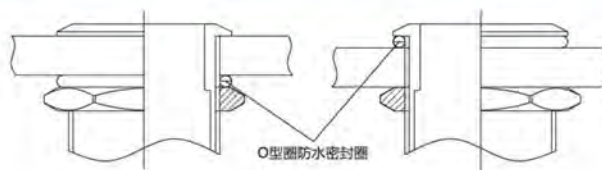
金属按钮开关外壳采用金属材料，与塑料开关相比，不紧增强了其美观性，外观颜色可多样化，并且大幅度提升了其防尘防水性能、防爆性能及防腐性等特点。防水等级IP65，防爆能力IK10。

Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP65, explosion-proof capability IK10.

内部IP防尘、防水结构



外部O型密封圈安装方法



标识定做/Identification custom

金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。
The surface of the key metal button switch, can be laser engraving patterns or luminous words and patterns, can be customized according to customer requirements. With novel and beautiful appearance, and replace the role of signs.

激光刻字效果图



激光刻穿发光效果图



符号定制举例



配套接插件型号说明/The mating connector model description

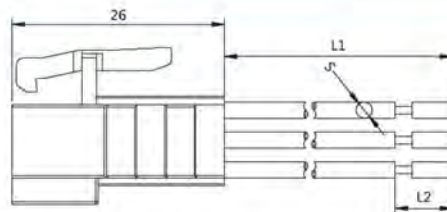
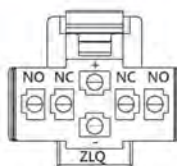
配套接插件具有快速安装、快速拆卸、方便操作、连接可靠、导电性能优越、保护按钮开关插脚、美观等诸多特点，是按钮开关配套必不可缺的组件。

The mating connector with fast installation, remove the fast, convenient operation, reliable connection, a superior conductivity, button switch pins, beautiful etc. many characteristics, is the button switch KitEssential components.

连接效果图



连接尺寸图



可定制各类线束 (18-24AWG)
Can customize all kinds of wiring harness (18-24AWG)

注：配套连接器与按钮为分采购，且连接器不单独零售。 Note: the matching connector and the button are purchased separately, and the connector is not retail.

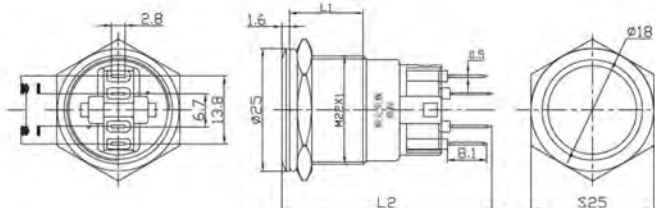
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



28.22B.1.11.X.0.0.0.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 5A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP65 Ik10
Switch Rating:

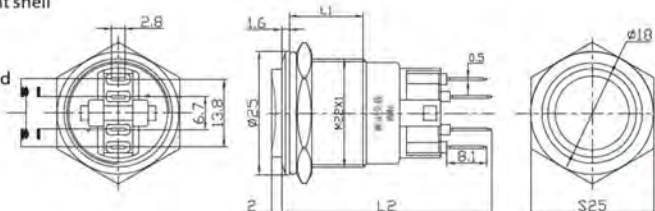


L1:Self-Lock:15mm Self-compound:12mm
L2:Self-Lock:42.7mm Self-compound:41mm



28.22B.2.11.X.0.0.0.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO1NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
外壳材质: Brass plating nickel/
Crust Material: Stainless steel/plating Ti
开关额定值: 5A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP65 Ik10
Switch Rating:

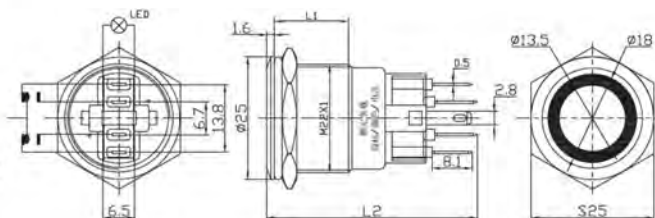


L1:Self-Lock:15mm Self-compound:12mm
L2:Self-Lock:42.7mm Self-compound:41mm



28.22B.1.11.X.2.X.X.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material: Brass plating nickel/Stainless steel/
Aluminum oxidation/plating Ti
开关额定值: 5A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP65 IK10
Switch Rating:

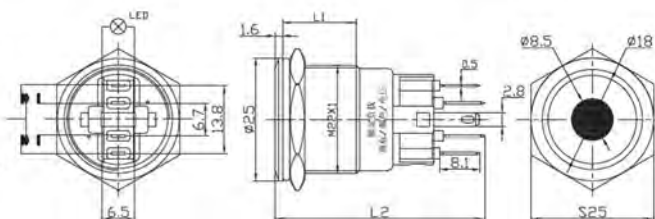


L1:Self-Lock:15mm Self-compound:12mm
L2:Self-Lock:42.7mm Self-compound:41mm



28.22B.1.11.X.1.X.X.1

安装孔直径: $\Phi 22\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Single point
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material: Brass plating nickel/Stainless steel/
Aluminum oxidation/plating Ti
开关额定值: 5A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP65 IK10
Switch Rating:



L1:Self-Lock:15mm Self-compound:12mm
L2:Self-Lock:42.7mm Self-compound:41mm

JV-17 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-50 Series

Infrared Series



22B系列金属按钮

22B Series Metal Buttons

www.jv-cn.com

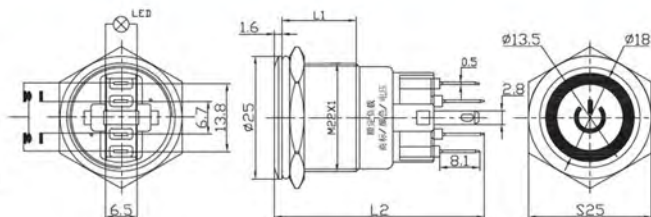
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions

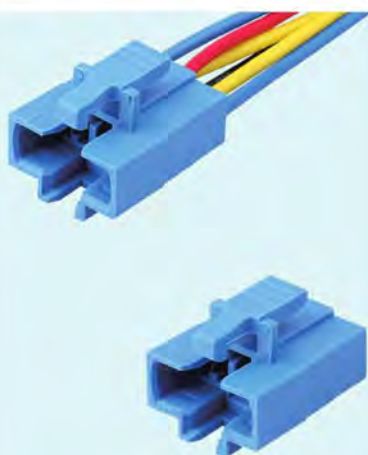


28.22B.1.11.X.4.X.X.1

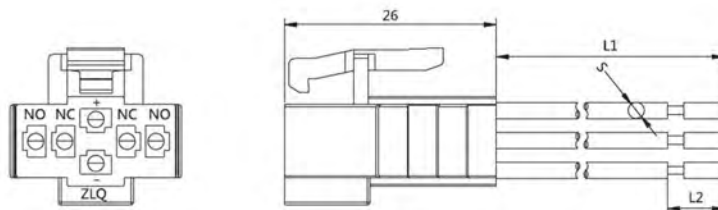
安装孔直径: $\phi 22\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Annular+Power Mark
 Luminescence type:
 发光颜色: RGBYWOP
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/Stainless steel
 Crust Material:
 /Aluminum oxidation/plating Ti
 开关额定值: 5A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP65 IK10
 Switch Rating:



L1:Self-Lock:15mm Self-compound:12mm
 L2:Self-Lock:42.7mm Self-compound:41mm



J&V 22B Connector



可定制各类线束 (18-24AWG)
 Can customize all kinds of wiring harness (18-24AWG)



JV-12 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series

金属按钮特点简介/Metal button feature profile

- 1、28.25A是剑威独立研发、创新设计的专利产品;
- 2、可选配接插件连接,保证接触性能,减少浪费人工;
- 3、具有超强的自锁性能与舒适的操作手感;
- 4、具有超强金属质感和高档的外观造型设计、颜色搭配;
- 5、防水、防尘等级可达IP67;
- 6、机械寿命:自复式可达50万次以上,自锁式可达10万次以上;
- 7、LED内置降压电阻,避免焊接,并可随意选择电压,可做双色发光;
- 8、加粗插脚,可靠性更高。

1. 28.25A is the independent research and development, innovation and design patent products;
2. optional connector, ensure contact performance, reduce the waste of labor;
3. with strong self locking performance and comfortable operation feel;
4. with a strong metal texture and high-end design, color collocation;
5. waterproof, dust level can reach IP67;
6. the mechanical life: self compound can reach more than 500000 times, more than 100000 of the self lock type;
7. LED built-in buck resistance, to avoid welding, and can choose the voltage, can do double color light-emitting; 8, bold pins, higher reliability.



ISO9001 TS16949 RoHS
CE CB KEMA S PCG CCC UL SAA TUV
AB45

Metal Button Switch 金属按钮开关 Φ25mm 25A Series



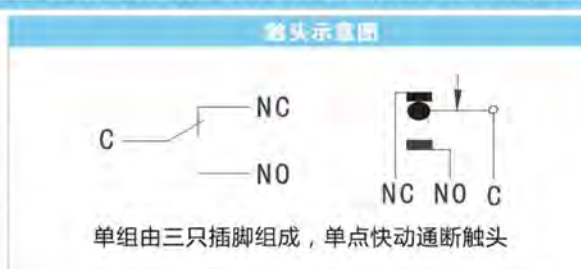
型号说明/Model description

28	⊙	A	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径(开关 螺纹外径 mm) Mounting hole diam eter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combi- nation	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
19 22 25 30 40	1: 平圆形斜面 外壳 2: 高平圆形斜 面外壳 1: Planar circular slant shell 2: High planar circular slant shell	11: 1NO1NC 22: 2NO2NC (NO为常开触头, NC为常闭触头) 11: 1NO1NC 22: 2NO2NC (NO is normally open contact, NC is normally closed contact)	1: 自复式 2: 自锁式 1: Self compo- und 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源 标志 0: No light 1: single point 2: ring 3: power source 4: Ring + po- wer symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 3: 不锈钢镀 钛金色 4: 铝合金氧化 (备注颜色) 1: stainless steel 2: brass plating 3: stainless steel tit- anium gold 4: aluminum alloy ox- idation (remark color)		

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC 6V DC 12V DC 24V DC 36V DC 48V AC 220V
额定电流(A) Rated current	4 3 2.5 2 2 3

开关结构说明/Switch structure description

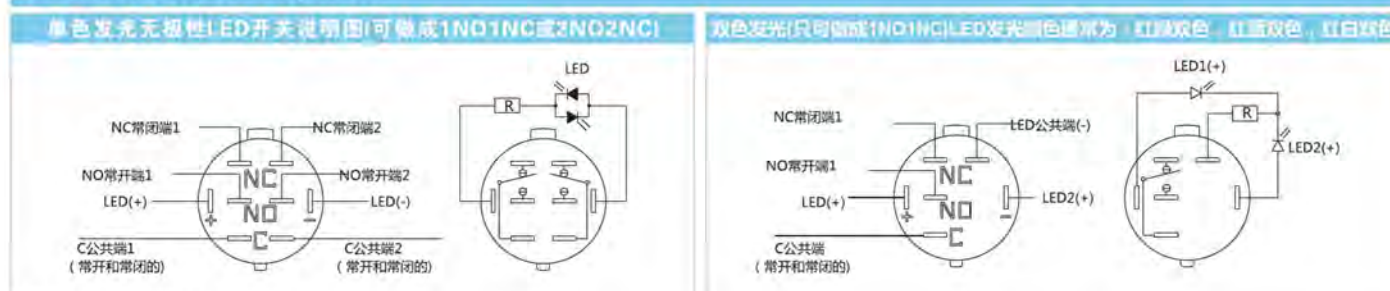


LED灯珠参数/LED lamp parameters

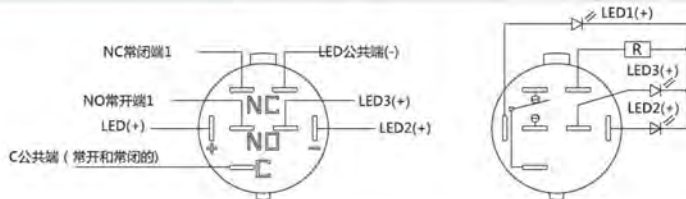
项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
全部内置电阻降压 All internal resistance	
降压方式 Buck mode	<div style="display: flex; justify-content: space-around;"> <div style="width: 30%;"> <p>单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)</p> </div> <div style="width: 30%;"> <p>双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)</p> </div> <div style="width: 30%;"> <p>三色发光电路图：(三路控制) Three color light emitting circuit diagram: (three way control)</p> </div> </div>
参考寿命 Reference life	40000小时(参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



三色发光LED开关说明图(只可做成1NO1NC), LED发光颜色通常为: 红绿蓝三色



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	快动单触点 Fast moving single contact	防爆等级 Explosion grade	Ik10 (针对金属材料) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	2.5~4.5N 2.5~4.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约2mm,总行程约3mm Connected to about 2mm, head office about 3mm
绝缘强度 Insulation strength	2000VAC	螺母扭矩 Nut torque	5~14N.m 5 - 14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	Silver alloy Silver alloy

防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料,与塑料开关相比,不紧增强了其美观性,外观颜色可多样化,并且大幅度提升了其防尘防水性能、防爆性能及防腐性等特点。防水等级IP67,防爆能力IK10。

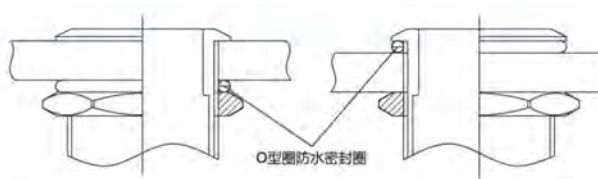
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK10.

内部IP防尘、防水结构



内部防水密封圈

外部O型密封圈安装方法



O型圈防水密封圈

配套接插件型号说明/The mating connector model description

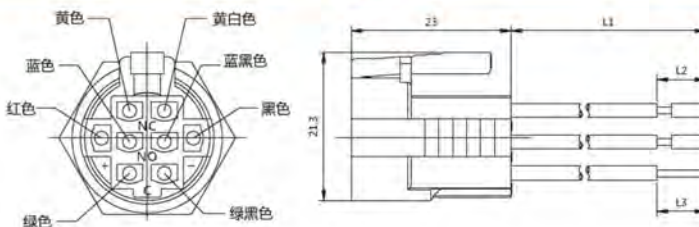
配套接插件具有快速安装、快速拆卸、方便操作、连接可靠、导电性能优越、保护按钮开关插脚、美观等诸多特点,是按钮开关配套必不可缺的组件。

The mating connector with fast installation, remove the fast, convenient operation, reliable connection, a superior conductivity, button switch pins, beautiful etc. many characteristics, is the button switch KitEssential components.

连接效果图



连接尺寸图



可定制各类线束 (18-24AWG)

Can customize all kinds of wiring harness (18-24AWG)

注: 配套连接器与按钮为分开采购,且连接器不单独零售。 Note: the matching connector and the button are purchased separately, and the connector is not retail.

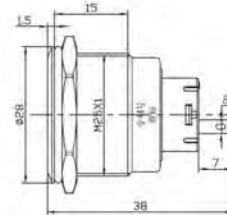
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



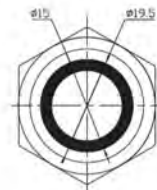
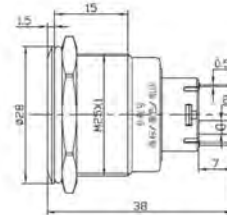
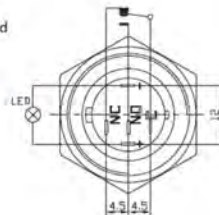
28.25A.1.X.X.0.0.1

安装孔直径: $\Phi 25\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 Crust Material:
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 Ik10
 Switch Rating:



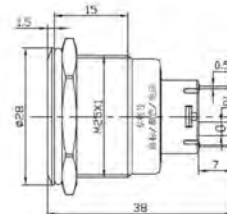
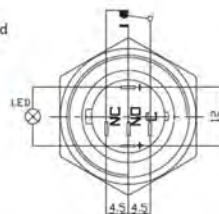
28.25A.1.X.X.2.X.X.1

安装孔直径: $\Phi 25\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Annular
 Luminescence type:
 发光颜色:
 Luminescent color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 Crust Material:
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



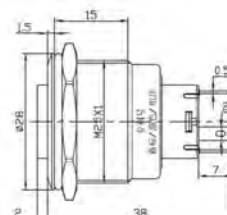
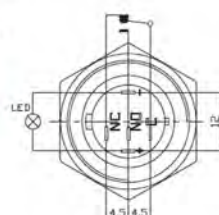
28.25A.1.X.X.3.X.X.1

安装孔直径: $\Phi 25\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色:
 Luminescent color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 Crust Material:
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



28.25A.2.X.X.2.X.X.1

安装孔直径: $\Phi 25\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色:
 Luminescent color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage:
 AC110V AC220V
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 Crust Material:
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



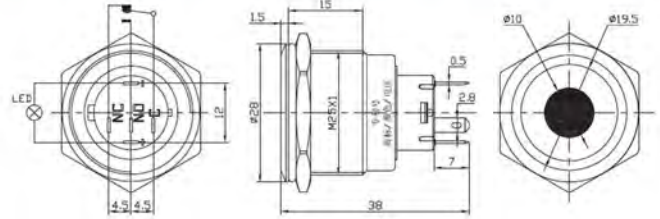
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions

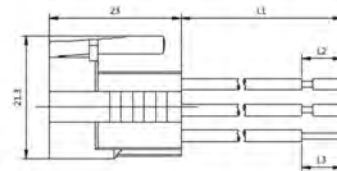
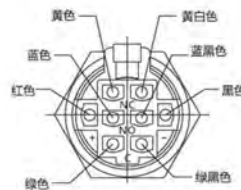


28.25A.1.X.X.1.X.X.1

安装孔直径: $\phi 25\text{mm}$
Diameter: $\phi 25\text{mm}$
头部形状: Flat circular bevel shell
Shape: Flat circular bevel shell
开关组合: 1NO1NC/2NO2NC
Configuration: 1NO1NC/2NO2NC
操作类型: Self-Lock/Self-Compound
Operation Type: Self-Lock/Self-Compound
发光类型: Single point
Luminescence type: Single point
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
发光电压: AC110V AC220V
Luminous voltage: AC110V AC220V
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material: Brass plating nickel/
Stainless steel/plating Ti
开关额定值: 4A /AC220V
Switch Rating: 4A /AC220V
触点材质: Silver alloy
Contact material: Silver alloy
接线方式: Optional Connector
Connection mode: Optional Connector
防护等级: IP67 IK10
Switch Rating: IP67 IK10



J&V25A Connector



可定制各类线束 (18-24AWG)
Can customize all kinds of wiring harness (18-24AWG)

Metal Button Switch



ISO9001 TS16949 RoHS

JV-12 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series



ISO9001 TS16949 RoHS
CE CB KEMA IEC UR S PC AB45 CCC UL 598 TÜV

Metal Button Switch 金属按钮开关 Φ30mm 30A Series

金属按钮特点简介/Metal button feature profile

- 1、28.30A是剑威独立研发、创新设计的专利产品;
- 2、可选配接插件连接, 保证接触性能, 减少浪费人工;
- 3、具有超强的自锁性能与舒适的操作手感;
- 4、具有超强金属质感和高档的外观造型设计、颜色搭配;
- 5、防水、防尘等级可达IP67;
- 6、机械寿命: 自复式可达50万次以上, 自锁式可达10万次以上;
- 7、LED内置降压电阻, 避免焊接, 并可随意选择电压, 可做双色发光;
- 8、加粗插脚, 可靠性更高。

1. 28.30A is the independent research and development, innovation and design patent products;
2. optional connector, ensure contact performance, reduce the waste of labor;
3. with strong self locking performance and comfortable operation feel;
4. with a strong metal texture and high-end design, color collocation;
5. waterproof, dust level can reach Ip67;
6. the mechanical life: self compound can reach more than 500000 times, more than 100000 of the self lock type;
7. LED built-in buck resistance, to avoid welding, and can choose the voltage, can do double color light-emitting;8. bold pins, higher reliability.



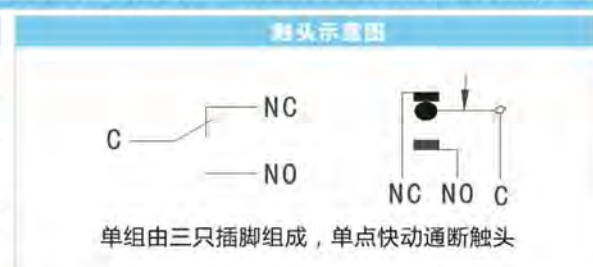
型号说明/Model description

28	0	A	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径 (开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch combination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
19 22 25 30 40	1: 平圆形斜面外壳 2: 高平圆形斜面外壳 1: Planar circular slant shell 2: High planar circular slant shell	11: 1NO1NC 22: 2NO2NC (NO为常开触头, NC为常闭触头) 11: 1NO1NC 22: 2NO2NC (NO is normally open contact, NC is normally closed contact)	1: 自复式 2: 自锁式 1: Self compound 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源标志 0: No light 1: single point 2: ring 3: power source 4: Ring + power symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 3: 不锈钢镀钛金色 4: 铝合金氧化 (备注颜色) 1: stainless steel 2: brass plating 3: stainless steel titanium gold 4: aluminum alloy oxidation (remark color)		

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC 6V DC 12V DC 24V DC 36V DC 48V AC 220V
额定电流(A) Rated current	4 3 2.5 2 2 3

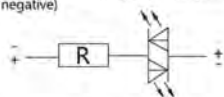
开关结构说明/Switch structure description



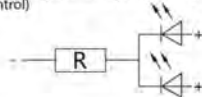
LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	全部内置电阻降压 All internal resistance
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

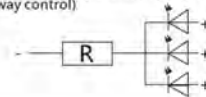
单色发光电路图：(不分正负极)
Monochrome light emitting circuit diagram: (not positive or negative)



双色发光电路图：(双路控制)
Double color light emitting circuit diagram: (dual path control)

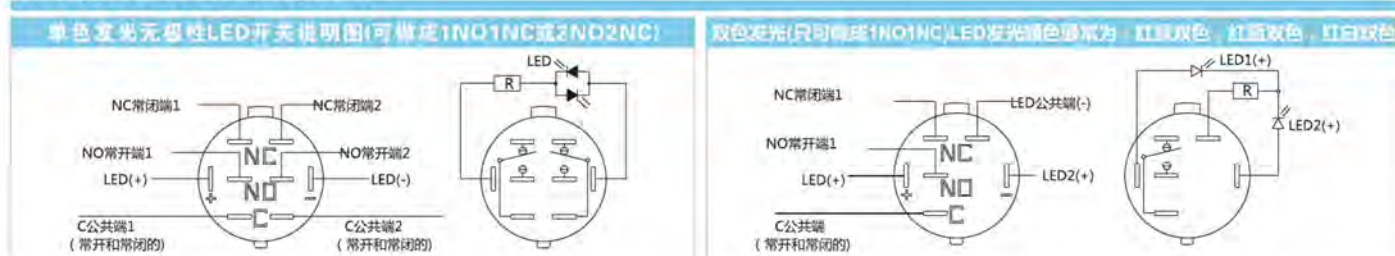


三色发光电路图：(三路控制)
Three color light emitting circuit diagram: (three way control)

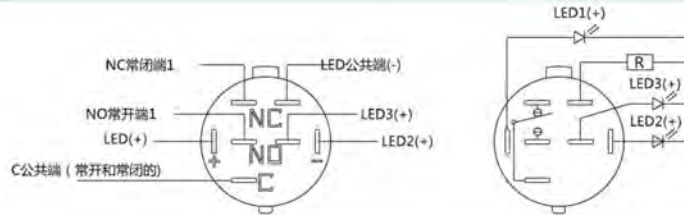


注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



三色发光LED开关说明图(只可做成1NO1NC), LED发光颜色通常为: 红绿蓝三色



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	快动单触点 Fast moving single contact	防爆等级 Explosion grade	Ik10 (针对金属材料) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	2.5~4.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约2mm, 总行程约3mm Connected to about 2mm, head office about 3mm
绝缘强度 Insulation strength	2000VAC	螺母扭矩 Nut torque	5~14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	Silver alloy Silver alloy

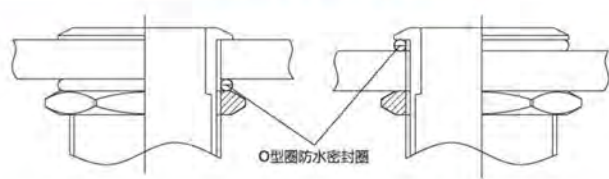
防护与安装说明/Protection and installation instructions

金属按钮开关外壳采用金属材料, 与塑料开关相比, 不紧增强了其美观性, 外观颜色可多样化, 并且大幅度提升了其防尘防水性能、防爆性能及防腐蚀性等特点。防水等级IP67, 防爆能力IK10。
Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK10.

内部IP防尘、防水结构



外部O型密封圈安装方法



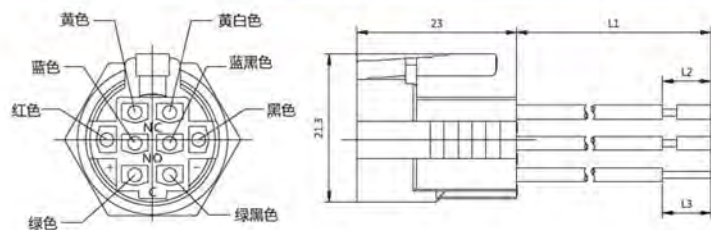
配套接插件型号说明/The mating connector model description

配套接插件具有快速安装、快速拆卸、方便操作、连接可靠、导电性能优越、保护按钮开关插脚、美观等诸多特点, 是按钮开关配套必不可缺的组件。
The mating connector with fast installation, remove the fast, convenient operation, reliable connection, a superior conductivity, button switch pins, beautiful etc, many characteristics, is the button switch Kit Essential components.

连接效果图



连接尺寸图



可定制各类线束 (18-24AWG)
Can customize all kinds of wiring harness (18-24AWG)

注: 配套连接器与按钮为分采购, 且连接器不单独零售。 Note: the matching connector and the button are purchased separately, and the connector is not retail.

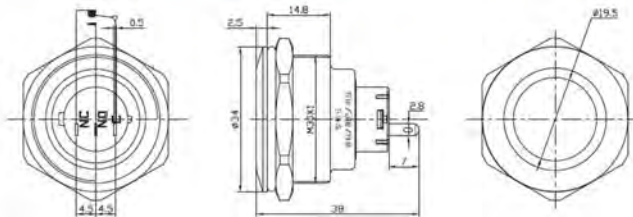
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



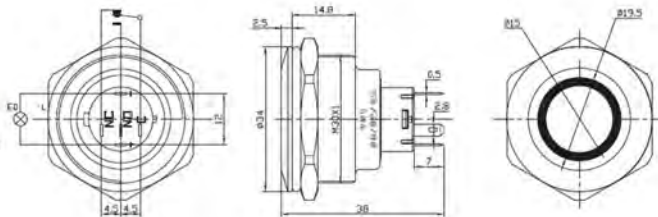
28.30A.1.X.X.0.0.1

安装孔直径: $\phi 30\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
外壳材质: Brass plating nickel/
Stainless steel/plating Ti
Crust Material:
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 Ik10
Switch Rating:



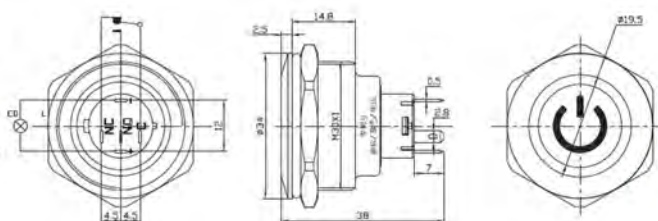
28.30A.1.X.X.2.X.X.1

安装孔直径: $\phi 30\text{mm}$
Diameter:
头部形状: Planar circular slant shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel
/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



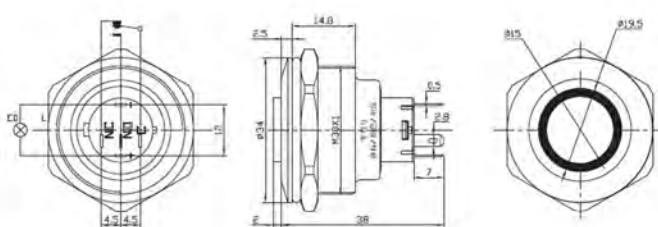
28.30A.1.X.X.3.X.X.1

安装孔直径: $\phi 30\text{mm}$
Diameter:
头部形状: Flat circular bevel shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Power Mark
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel
/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



28.30A.2.X.X.2.X.X.1

安装孔直径: $\phi 30\text{mm}$
Diameter:
头部形状: High planar circular slant shell
Shape:
开关组合: 1NO1NC/2NO2NC
Configuration:
操作类型: Self-Lock/Self-Compound
Operation Type:
发光类型: Annular
Luminescence type:
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage:
AC110V AC220V
Crust Material:
外壳材质: Brass plating nickel/Stainless steel
/plating Ti
开关额定值: 4A /AC220V
Switch Rating:
触点材质: Silver alloy
Contact material:
接线方式: Optional Connector
Connection mode:
防护等级: IP67 IK10
Switch Rating:



JV-17 Series

JV-18 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series



30A系列金属按钮

30A Series Metal Buttons

www.jv-cn.com

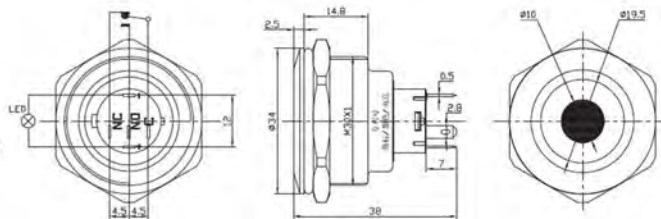
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions

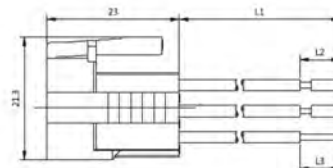


28.30A.1.X.X.1.X.X.1

安装孔直径: $\Phi 30\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Single point
 Luminescence type:
 发光颜色: RGBYWOPG
 Luminous color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 AC110V AC220V
 Luminous voltage:
 外壳材质: Brass plating nickel/Stainless steel
 Crust Material:
 /plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



J&V30A Connector



可定制各类线束 (18-24AWG)
 Can customize all kinds of wiring harness (18-24AWG)

Metal Button Switch



ISO9001 TS16949 RoHS
 CE CB KEMA EUR S PCG CCC UL SAA
 AB45

JV-12 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series

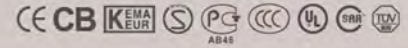
金属按钮特点简介/Metal button feature profile

- 1、28.40A是剑威独立研发、创新设计的专利产品;
- 2、可选配接插件连接, 保证接触性能, 减少浪费人工;
- 3、具有超强的自锁性能与舒适的操作手感;
- 4、具有超强金属质感和高档的外观造型设计、颜色搭配;
- 5、防水、防尘等级可达IP67;
- 6、机械寿命: 自复式可达50万次以上, 自锁式可达10万次以上;
- 7、LED内置降压电阻, 避免焊接, 并可随意选择电压, 可做双色发光;
- 8、加粗插脚, 可靠性更高。

1. 28.40A is the independent research and development, innovation and design patent products;
2. optional connector, ensure contact performance, reduce the waste of labor;
3. with strong self locking performance and comfortable operation feel;
4. with a strong metal texture and high-end design, color collocation;
5. waterproof, dust level can reach Ip67;
6. the mechanical life: self compound can reach more than 500000 times, more than 100000 of the self lock type;
7. LED built-in buck resistance, to avoid welding, and can choose the voltage, can do double color light-emitting;
8. bold pins, higher reliability.



ISO9001 TS16949 RoHS



Metal Button Switch 金属按钮开关 Φ40mm 40A Series





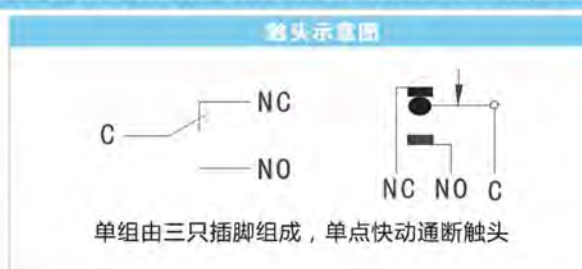
型号说明/Model description

28	○	A	X	X	X	X	X	X	
剑威代码 JV Code	安装孔直径 (开关 螺纹外径 mm) Mounting hole diam eter (mm)	系列号 Serial number	头部形状 Head shape	开关组合 Switch com- bination	操作类型 Operation type	发光类型 Luminescence type	发光颜色 Luminous color	带灯电压 (AV/DC,V) Lamp voltage (AV/DC,V)	外壳材质 Shell material
19 22 25 30 40	1: 平圆形斜面 外壳 2: 高平圆形斜 面外壳 1: Planar circular slant shell 2: High planar circular slant shell	11: 1NO1NC 22: 2NO2NC (NO为常开触头, NC为常闭触头) 11: 1NO1NC 22: 2NO2NC (NO is normally open contact, NC is normally closed contact)	1: 自复式 2: z自锁式 1: Self compo- und 2: Self lock type	0: 无光 1: 单点 2: 环形 3: 电源标志 4: 环形+电源 标志 0: No light 1: single point 2: ring 3: power source 4: Ring + po- wer symbol	1- R 2- G 3- B 4- Y 5- W 6- O 7- P	1-6 2-12 3-24 4-36 5-48 6-120 7-240	1: 不锈钢 2: 黄铜镀镍 3: 不锈钢镀 钛金色 4: 铝合金氧化 (备注颜色) 1: stainless steel 2: brass plating 3: stainless steel tit- anium gold 4: aluminum alloy ox- idation (remark color)		

开关额定负载/Switch rated load

项目/Project	参数/Parameter
额定绝缘电压Ui Rated insulation voltage Ui	AC250V
发热电流Ith Heating current Ith	5A
额定电压 Rated voltage	DC 6V DC 12V DC 24V DC 36V DC 48V AC 220V
额定电流(A) Rated current	4 3 2.5 2 2 3

开关结构说明/Switch structure description

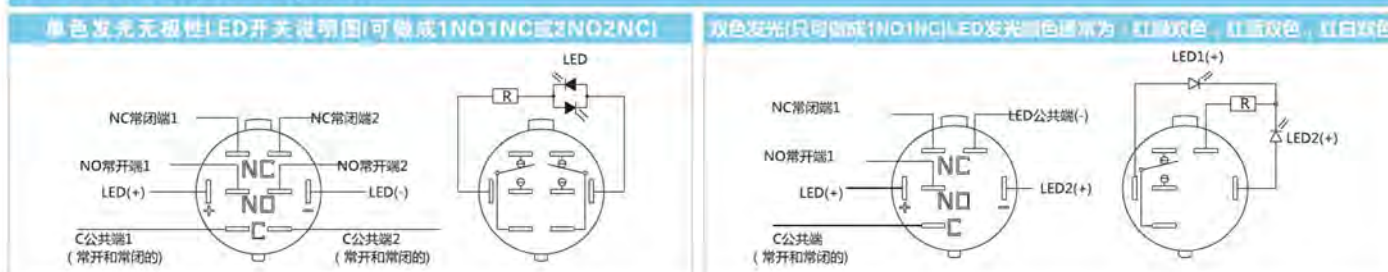


LED灯珠参数/LED lamp parameters

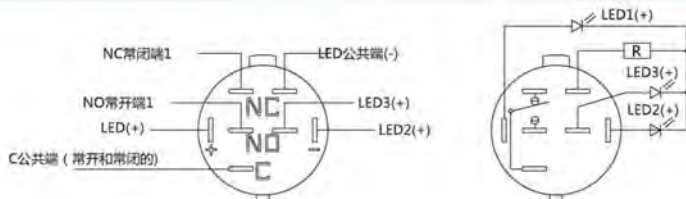
项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠，冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
全部内置电阻降压 All internal resistance	
降压方式 Buck mode	<div style="display: flex; justify-content: space-around;"> <div style="width: 30%;"> <p>单色发光电路图：(不分正负极) Monochrome light emitting circuit diagram: (not positive or negative)</p> </div> <div style="width: 30%;"> <p>双色发光电路图：(双路控制) Double color light emitting circuit diagram: (dual path control)</p> </div> <div style="width: 30%;"> <p>三色发光电路图：(三路控制) Three color light emitting circuit diagram: (three way control)</p> </div> </div>
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

注：如需其它类型LED可以定做，或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.

引脚说明/Pin description



三色发光LED开关说明图(只可做成1NO1NC), LED发光颜色通常为 红绿蓝三色



其它参数/Other parameters

项目/Project	参数/Parameter	项目/Project	参数/Parameter
开关型式 Switch type	快动单触点 Fast moving single contact	防爆等级 Explosion grade	Ik10 (针对金属材质) for metal material
接触电阻 Contact resistance	≤50mΩ	操作压力 Operating pressure	2.5~4.5N 2.5~4.5N
绝缘电阻 Insulation resistance	≥1000MΩ	操作行程 Operation schedule	接通约2mm,总行程约3mm Connected to about 2mm, head office about 3mm
绝缘强度 Insulation strength	2000VAC	螺母扭矩 Nut torque	5~14N.m 5~14N.m
环境温度 Ambient temperature	-20°C ~ +85°C	外壳 Outer shell	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
电器寿命 Electrical life	5万次以上 More than 50000 times	按键 Press key	不锈钢/黄铜镀镍/铝合金氧化/塑料 Stainless steel / brass plating aluminium alloy oxide / plastic
机械寿命 Mechanical life	50万次以上 More than 500000 times	底座 Base seat	工程塑料 Engineering
防水等级 Waterproof grade	IP67	触点 Touch point	Silver alloy Silver alloy

防护与安装说明/Protection and installation instructions

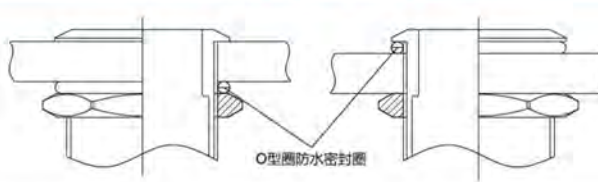
金属按钮开关外壳采用金属材料,与塑料开关相比,不紧增强了其美观性,外观颜色可多样化,并且大幅度提升了其防尘防水性能、防爆性能及耐腐蚀性等特点。防水等级IP67,防爆能力IK10。

Metal button switch shell using metal material, compared with the plastic switch, not tight to enhance its appearance, color can be diversified, and greatly improve its dust and waterproof performance, Explosion-proof performance and corrosion resistance, etc.. Waterproof grade IP67, explosion-proof capability IK10.

内部IP防护, 防水结构



外部O型圈密封安装方法



配套接插件型号说明/The mating connector model description

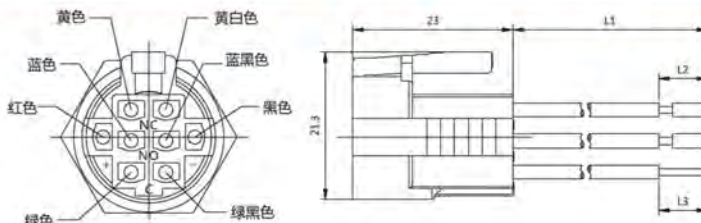
配套接插件具有快速安装、快速拆卸、方便操作、连接可靠、导电性能优越、保护按钮开关插脚、美观等诸多特点,是按钮开关配套必不可缺的组件。

The mating connector with fast installation, remove the fast, convenient operation, reliable connection, a superior conductivity, button switch pins, beautiful etc. many characteristics, is the button switch KitEssential components.

连接效果图



连接尺寸图



可定制各类线束 (18-24AWG)

Can customize all kinds of wiring harness (18-24AWG)

注: 配套连接器与按钮为分开采购,且连接器不单独零售。 Note: the matching connector and the button are purchased separately, and the connector is not retail.

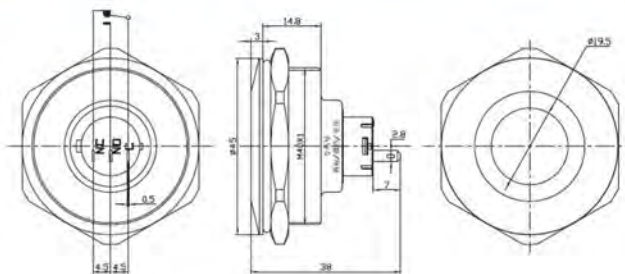
实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



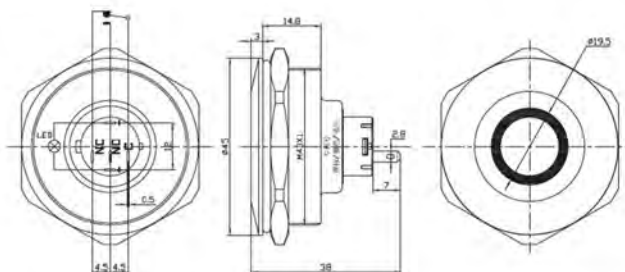
28.40A.1.X.X.0.0.1

安装孔直径: $\Phi 40\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 Crust Material:
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



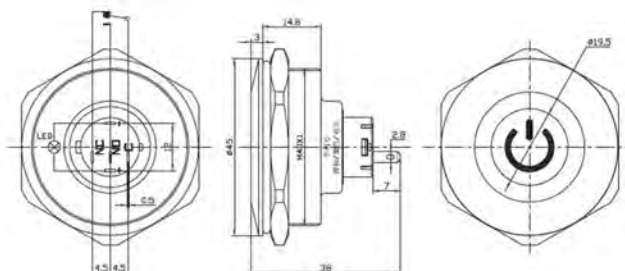
28.40A.1.X.X.2.X.X.1

安装孔直径: $\Phi 40\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Annular
 Luminescence type:
 发光颜色:
 Luminescent color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminescent voltage:
 AC110V AC220V
 Crust Material:
 外壳材质: Brass plating nickel/Stainless steel
 /Aluminum oxidation/plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



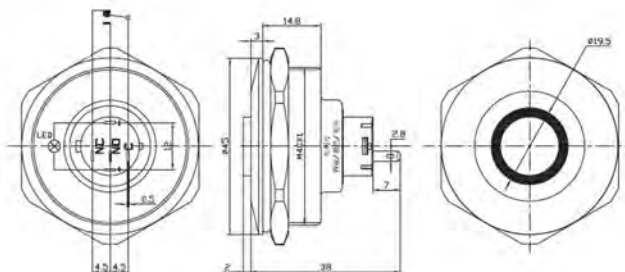
28.40A.1.X.X.3.X.X.1

安装孔直径: $\Phi 40\text{mm}$
 Diameter:
 头部形状: Flat circular bevel shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Power Mark
 Luminescence type:
 发光颜色:
 Luminescent color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminescent voltage:
 AC110V AC220V
 Crust Material:
 外壳材质: Brass plating nickel/
 Stainless steel/plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



28.40A.2.X.X.2.X.X.1

安装孔直径: $\Phi 40\text{mm}$
 Diameter:
 头部形状: High planar circular slant shell
 Shape:
 开关组合: 1NO1NC/2NO2NC
 Configuration:
 操作类型: Self-Lock/Self-Compound
 Operation Type:
 发光类型: Annular
 Luminescence type:
 发光颜色:
 Luminescent color:
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminescent voltage:
 AC110V AC220V
 Crust Material:
 外壳材质: Brass plating nickel/Stainless steel
 /Aluminum oxidation/plating Ti
 开关额定值: 4A /AC220V
 Switch Rating:
 触点材质: Silver alloy
 Contact material:
 接线方式: Optional Connector
 Connection mode:
 防护等级: IP67 IK10
 Switch Rating:



JV 1.2 Series

JV 1.6 Series

JV 1.8 Series

JV 2.2 Series

JV 2.5 Series

JV 3.0 Series

JV 4.0 Series

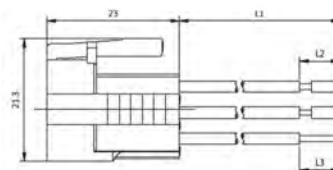
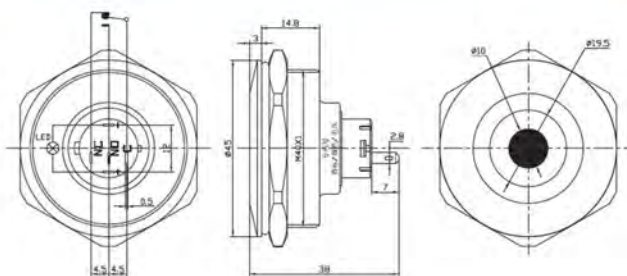
Indicator Series

实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions



安装孔直径: $\phi 40\text{mm}$
Diameter: $\phi 40\text{mm}$
头部形状: Flat circular bevel shell
Shape: Flat circular bevel shell
开关组合: 1NO1NC/2NO2N
Configuration: 1NO1NC/2NO2N
操作类型: Self-Lock/Self-Compound
Operation Type: Self-Lock/Self-Compound
发光类型: Single point
Luminescence type: Single point
发光颜色:
Luminous color:
发光电压: 3V 5V 6V 12V 24V 36V 48V
Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
AC110V AC220V
外壳材质: Brass plating nickel/Stainless steel
/Aluminum oxidation/plating Ti
Cust Material: Brass plating nickel/Stainless steel
/Aluminum oxidation/plating Ti
开关额定值: 4A /AC220V
Switch Rating: 4A /AC220V
触点材质: Silver alloy
Contact material: Silver alloy
接线方式: Optional Connector
Connection mode: Optional Connector
防护等级: IP67 IK10
Switch Rating: IP67 IK10



可定制各类线束 (18-24AWG)
Can customize all kinds of wiring harness (18-24AWG)

Metal
Button Switch



ISO9001 TS16949 RoHS
CE CB KEMA EUR S PC AB45 CCC UL SAA

JV-12 Series

JV-16 Series

JV-19 Series

JV-22 Series

JV-25 Series

JV-30 Series

JV-40 Series

Indicator Series



ISO9001 TS16949 RoHS



Metal Indicator Lamp

金属信号灯

Φ8~16mm

指示灯特点简介 Indicator light profile

- 1、独特的外观设计；
- 2、高亮发光指示；
- 3、超短安装尺寸；
- 4、全部内置降压电阻；
- 5、常用安装孔尺寸齐全。

1. Unique design;
2. Bright light;
3. Ultra short installation size;
4. All internal resistance;
5. Common mounting hole size.



型号说明/Model description

18	X	§	X	X	X	X	X
剑威代码 JV Code	安装孔直径 (开关螺纹外径 mm) Mounting hole diameter (mm)	系列号 Serial number	头部形状 Head shape 1: 平圆形斜面外壳 1: flat circular bevel shell	发光类型 Luminescence type 5: 整圆发光 5: the whole circle	发光颜色 Luminous color 1- R 2- G 3- B 4- Y 5- W 6- O 7- P	带灯电压 (AV/DC, V) Lamp voltage (AV/DC, V) 1-6 2-12 3-24 4-36 5-48 6-110 7-220	外壳材质 Shell material 1: 不锈钢 2: 黄铜镀镍 1: Stainless steel 2: Brass plating
	8 10 12 16 19						

LED灯珠参数/LED lamp parameters

项目/Project	参数/Parameter
灯珠类型 Led type	高亮度LED灯珠, 冷色 High brightness LED lamp, cool
发光颜色 Luminous color	R G B Y W O P
额定电压 Rated voltage	AC/DC 6V, AC/DC 12V, AC/DC 24V, AC/DC 36V, AC/DC 48V, AC110V, AC220V
额定电流 Rated current	≤20mA
降压方式 Buck mode	内置电阻降压 (不分正负极) Built in resistance (no positive or negative)
	
参考寿命 Reference life	40000小时 (参考值) 40000 hours (reference value)

注: 如需其它类型LED可以定做, 或者根据样品开发。 Note: if other types of LED can be made to order, or to develop according to the sample.



实物展示/Physical display

外形及安装尺寸/Dimensions and installation dimensions

JV 1.2 Series

JV 1.6 Series

JV 1.9 Series

JV 2.2 Series

JV 2.5 Series

JV 3.0 Series

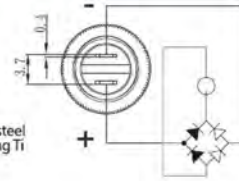
JV 4.0 Series

Indicator Series



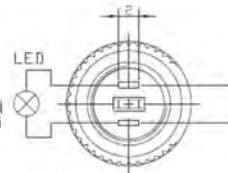
18.8A.1.5.X.X.2

安装孔直径: $\Phi 8\text{mm}$
 Diameter: $\Phi 8\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 发光类型: Plane Luminescence
 Luminescence type: Plane Luminescence
 发光颜色: R G B Y W O P
 Luminous color: R G B Y W O P
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 额定电流: 20mA
 Switch Rating: 20mA
 防护等级: IK08
 Switch Rating: IK08



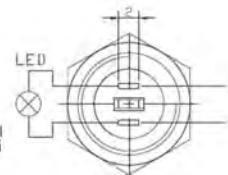
18.8B.1.5.X.X.2

安装孔直径: $\Phi 8\text{mm}$
 Diameter: $\Phi 8\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 发光类型: Plane Luminescence
 Luminescence type: Plane Luminescence
 发光颜色: R G B Y W O P
 Luminous color: R G B Y W O P
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 额定电流: 20mA
 Switch Rating: 20mA
 防护等级: IK08
 Switch Rating: IK08



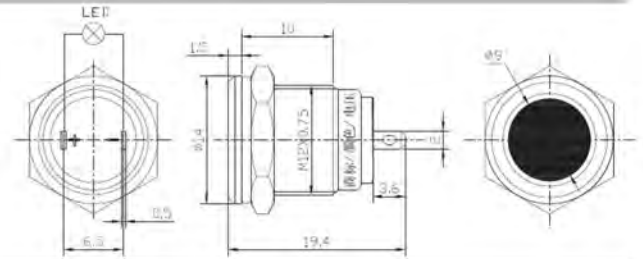
18.10C.1.5.X.X.2

安装孔直径: $\Phi 10\text{mm}$
 Diameter: $\Phi 10\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 发光类型: Plane Luminescence
 Luminescence type: Plane Luminescence
 发光颜色: R G B Y W O P
 Luminous color: R G B Y W O P
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 额定电流: 20mA
 Switch Rating: 20mA
 防护等级: IK08
 Switch Rating: IK08



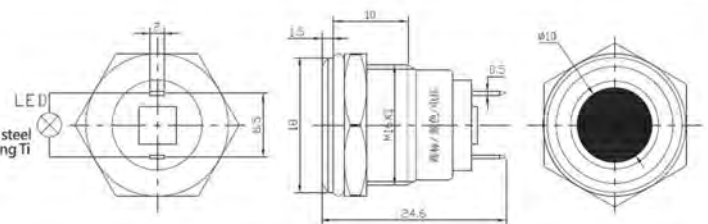
18.12D.1.5.X.X.2

安装孔直径: $\Phi 12\text{mm}$
 Diameter: $\Phi 12\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 发光类型: Plane Luminescence
 Luminescence type: Plane Luminescence
 发光颜色: R G B Y W O P
 Luminous color: R G B Y W O P
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 额定电流: 20mA
 Switch Rating: 20mA
 防护等级: IK08
 Switch Rating: IK08



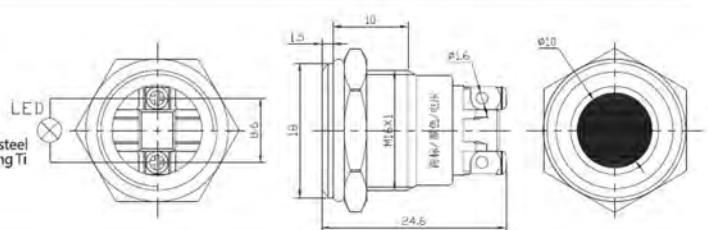
18.16E.1.5.X.X.2.2

安装孔直径: $\Phi 16\text{mm}$
 Diameter: $\Phi 16\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 发光类型: Plane Luminescence
 Luminescence type: Plane Luminescence
 发光颜色: R G B Y W O P
 Luminous color: R G B Y W O P
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 额定电流: 20mA
 Switch Rating: 20mA
 接线方式: Welding
 Connection mode: Welding
 防护等级: IK09
 Switch Rating: IK09



18.16F.1.5.X.X.2.1

安装孔直径: $\Phi 16\text{mm}$
 Diameter: $\Phi 16\text{mm}$
 头部形状: Flat circular bevel shell
 Shape: Flat circular bevel shell
 发光类型: Plane Luminescence
 Luminescence type: Plane Luminescence
 发光颜色: R G B Y W O P
 Luminous color: R G B Y W O P
 发光电压: 3V 5V 6V 12V 24V 36V 48V
 Luminous voltage: 3V 5V 6V 12V 24V 36V 48V
 外壳材质: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 Crust Material: Brass plating nickel/Stainless steel /Aluminum oxidation/plating Ti
 额定电流: 20mA
 Switch Rating: 20mA
 接线方式: Terminal
 Connection mode: Terminal
 防护等级: IK09
 Switch Rating: IK09



防护等级说明/Protection level description

防护等级多以IP后跟随两个数字来表述，数字用来明确防护的等级。

第一位数字表明设备抗微尘的范围，或者是人们在密封环境中免受危害的程度。代表防止固体异物进入的等级，最高级别是6；

第二位数字表明设备防水的程度。代表防止进水的等级，最高级别是8。

Level of protection to IP after the following two figures to express, the number used to protect the level of clear.

The first digit indicates the range of anti dust device, Or people in a sealed environment to avoid damage. On behalf of the level of preventing the entry of solid foreign bodies, The highest level is 6;

The second digit indicates the degree of waterproof of the equipment. Represents the highest level of water intake, the highest level is 8.

IP后第一位数字:防尘等级 编辑/IP after the first number: dust level editor

数字 Digital	防护范围 Protection range	说明 Description
0	无防护 No protection	对外界的人或物无特殊的防护 No special protection for persons or objects.
1	防止直径大于50mm的固体外物侵入 Prevent over Φ 50mm object Invasion	防止人体（如手掌）因意外而接触到电器内部的零件，防止较大尺寸（直径大于50mm）的外物侵入 Prevent human body from accidental exposure to internal parts, to prevent over Φ 50mm of the object intrusion
2	防止直径大于12.5mm的固体外物侵入 Prevent over Φ 12.5mm object Invasion	防止人的手指接触到电器内部的零件，防止中等尺寸（直径大于12.5mm）的外物侵入 Prevent human body from accidental exposure to internal parts, to prevent over Φ 12.5mm of the object intrusion
3	防止直径大于2.5mm的固体外物侵入 Prevent over Φ 2.5mm object Invasion	防止直径或厚度大于2.5mm的工具、电线及类似的小型外物侵入而接触到电器内部的零件 Prevent human body from accidental exposure to internal parts, to prevent over Φ 2.5mm of the object intrusion
4	防止直径大于1.0mm的固体外物侵入 Prevent over Φ 1.0mm object Invasion	防止直径或厚度大于1.0mm的工具、电线及类似的小型外物侵入而接触到电器内部的零件 Prevent human body from accidental exposure to internal parts, to prevent over Φ 1.0mm of the object intrusion
5	防止外物及灰尘 Prevent foreign material and dust	完全防止外物侵入，虽不能完全防止灰尘侵入，但灰尘的侵入量不会影响电器的正常运作 Completely prevent the object from intrusion, although not completely prevent dust intrusion, But the amount of dust intrusion will not affect the normal operation of electrical appliances
6	防止外物及灰尘 Prevent foreign material and dust	完全防止外物及灰尘侵入 Completely prevent objects and dust intrusion

IP后第二位数字:防水等级 编辑/IP after the first number: dust level editor

数字 Digital	防护范围 Protection range	说明 Description
0	无防护 No protection	对水或湿气无特殊的防护 No special protection against water or moisture.
1	防止水滴浸入 prevent the water drop	垂直落下的水滴（如凝结水）不会对电器造成损坏 Vertical drop of water will not cause damage to electrical appliances
2	倾斜15度时，仍可防止水滴浸入 Inclined to 15 degrees, still prevent water droplets	当电器由垂直倾斜至15度时，滴水不会对电器造成损坏 When the electrical appliance is tilted to 15 degrees, the water will not cause damage to the electrical appliances.
3	防止喷洒的水浸入 Prevent water from spraying	防雨或防止与垂直的夹角小于60度的方向所喷洒的水侵入电器而造成损坏 Rain or prevent the spraying direction of 60 degrees and the vertical angle is less than the electrical damage caused by water intrusion
4	防止飞溅的水浸入 prevent the splash of water immersion	防止各个方向飞溅而来的水侵入电器而造成损坏 prevent the water from splashing in all directions and cause damage.
5	防止喷射的水浸入 Prevent the injection of water immersion	防止来自各个方向由喷嘴射出的水侵入电器而造成损坏 prevent damage to the water from the nozzle from all directions.
6	防止大浪浸入 prevent waves	装设于甲板上的电器，可防止因大浪的侵袭而造成的损坏 Installed on the deck of the appliance, can prevent the damage caused by the invasion of the waves
7	防止浸水时水的浸入 prevent water immersion in water	电器浸在水中一定时间或水压在一定的标准以下，可确保不因浸水而造成损坏 Electrical immersion in water for a certain period of time or under water pressure, to ensure that no damage
8	防止沉没时水的浸入 prevent water from sinking	电器无限期沉没在指定的水压下，可确保不因浸水而造成损坏 Electrical appliances are submerged in the water, which can make sure that no damage is caused.



东莞市剑威电子科技有限公司

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