

### HBS1-AGQ 金属按钮系列

#### 型号说明 Model Explanation

#### HBS1-AGQ

系列号 Series Number	安装孔尺寸 Mounting Hole Size	头部形状 Front Shape	开关组合 Contact Configuration	带灯类型 Lamp Type	操作类型 Operation Type	操作位置 Operation Position	带灯颜色 LED Color	带灯部分电压 LED Voltage	外壳材料 Shell Material	外壳电镀颜色 Shell Plating Color
HBS1-AGQ	16: Ø16mm 19: Ø19mm 22: Ø22mm 25: Ø25mm 30: Ø30mm	F: 平圆形 H: 高平圆形	11: 1NO 1NC 22: 2NO 2NC	D: 单点 E: 环形 DT: 电源符号 ET: 环形电源符号 D: Dot E: Ring DT: Power Symbol ET: Ring Power Symbol	Z: 自锁式 无自锁式 X: 选择按钮 Y: 钥匙按钮 TS: 急停按钮 Z: Latching No Latch Z: Momentary X: Selector Switch Y: Key-lock button TS: Emergency Switch	◆ 选择按钮及钥匙按钮的操作位置 Operation position of Selector switch and Key-lock switch 1: 二位置 2Position 2: 三位置 3Position ● 选择按钮及钥匙按钮动作类型 Action of Selector Switch and Key-lock Switch 1: 保持式 Maintained 2: 全自锁式 Full-momentary	R: Red G: Green Y: Yellow O: Orange B: Blue W: White R G G B R G B	AC/DC6V AC/DC12V AC/DC24V AC/DC36V AC/DC110V AC/DC220V 其他电压等级可定做 Other voltage can be made to order	N: 黄铜镀镍 S: 不锈钢 T: 锌铝合金 N: Nickel-plated Brass S: Stainless Steel T: Zn-Al Alloy	R: Red G: Green B: Blue O: Gold N: Black W: White

#### 性能参数 Parameters

开关额定值 Switch Rating	AC: 5A/250V	表面防爆等级 Explosion proof grade	IK08(针对金属材料)
环境温度 Operating Temperature	-40°C ~ +80°C	防护等级 Degree of Protection	IP 67
接触电阻 Contact Resistance	≤ 50mΩ	操作压力 Operating Pressure	3-5N
绝缘电阻 Insulation Resistance	≥ 1000MΩ	操作行程 Operating Stroke	3mm
介电强度 Dielectric Strength	AC1780V	螺母扭矩 Screw Torque	5-14N
机械寿命 Mechanical Life	> 1000,000次	外壳 Shell material	黄铜镀镍/不锈钢 Nickel-plated Brass/Stainless Steel
电气寿命 Electrical Life	> 50,000次	材质 Material	按键 Press key material 不锈钢 Stainless steel 底座 Base material 塑料底座 Plastic base 触点 Contact material 银合金 Silver alloy
开关结构 Contact Type	单触点快动触点 Single-break fast motion changeover contact		
开关组合 Contact Configuration	1NO 1NC / 2NO 2NC		

#### LED灯珠规格 LED Lamp Specifications

灯珠类型 Lamp Type	双向LED灯珠(交直流通用) Bi-directional LED lamp (AC DC Universal)	额定电流 Rated Current	约15mA about 15mA
额定电压 Rated Voltage	1.8V、2.8V、6V、12V、24V、36V、110V、220V	发光颜色 Color	R G O B W R G R B R G B
		寿命 Life	50000小时(参考值) 50000 hours (reference value)

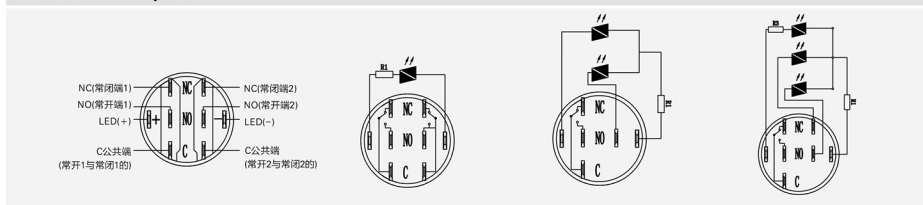
注: 如需单向直流LED灯珠可定做; 其他电压规格可按要求定做。  
Note: Unidirectional DC LED lamp can be customized if needed; other voltage specifications could be special made

灯珠等效电路 Lamp Equivalent Circuit	单色发光 Monochrome light	双色发光 Double color light	三色发光 Three color light
<p>采用交直流通用的LED灯珠, 接线端子无正负极区分; 灯珠内置保护电阻, 不需外接。 AC-DC Universal LED lamp, terminal differentiate between positive and negative; lamp beads built-in protection resistors, no external.</p>	<p>高亮LED发光, 基本发光颜色5种: (红绿黄蓝白)基它可定制; 双色发光及三色发光, 基本型是共负极, 可按客户要求定制其他颜色以及共正极。</p>		

#### 开关结构说明 Switch Structure Explanation

型式Type	符号Symbol	示意图Diagram	说明Explanation
C	NO NC		具有三个端子的单断点快动转换触头开关 Single breakpoint fast moving contact switch with three terminals.

#### 引脚说明 Pin Description



### HBS1-AGQ Series Metal Pushbutton Switches



#### 部分产品焊接注意事项 Welding Precautions

任何不正确的焊接操作都可能导致产品塑料变形、开关接触不良等。用户在使用引脚式按钮开关、信号灯时, 因焊接不当导致产品损坏的现象时有发生, 故敬请各位用户在接线操作时务必注意以下几点:

- 选择合适规格的烙铁, 加快焊接速度, 建议使用30W以下电烙铁在320°C时2秒内完成焊接。
- 助焊剂必须适量, 焊接时尽量将开关引脚朝下。
- 尽量采用插线端子连接, 避免焊接连接。

Any improper welding operation may lead to product plastic deformation, poor switch contact. Users using pin-type button switches, lights, due to improper welding damage to the product. Phenomenon occurs from time to time, so please be sure to pay attention to the following points in the wiring operation:

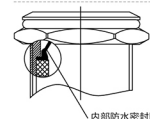
- Choose the right electric iron, speed up the welding speed, it is recommended to use the following 30W electric iron at 320 ° C When 2 seconds to finish welding.
- Flux must be moderate, try to switch the pin down when welding.
- Try to use plug-in terminals to avoid welding connections.

#### 防护与安装说明 Protection and installation instructions

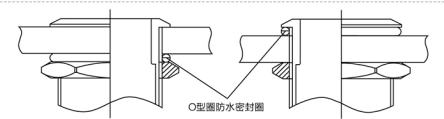
金属按钮开关外壳采用金属材料, 与塑料开关相比, 不紧增强了其美观性, 外观颜色可多样化, 并且大幅度提升了头部安装面板以上其防水性能、防腐性能及耐腐蚀性等。防水等级IP65, 防爆能力IK08。

Pushbutton with metal housing, not only the appearance would be more beautiful and multi-colorful compared with plastic indicator, but also enhance the dustproof and waterproof, explosion resistance and corrosion resistance performance of the head (above the panel mount), etc. IP65 waterproof, Explosion-proof IK08.

#### 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

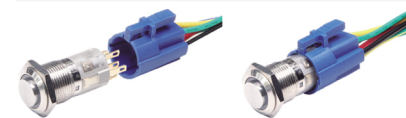


#### 配套接插件型号说明 The mating connector model description

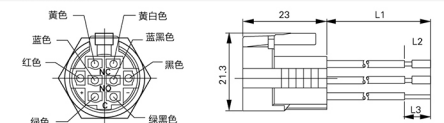
配套接插件具有快速安装、快速拆卸、方便操作、导电性能优越、保护按钮开关插脚、美观等诸多特点, 是按钮开关配套必不可少的组件。

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



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 button are purchased separately, and the connector does not retail separately.

- L1-导线长度, 默认150mm长;
- L2-导线长度, 默认10mm长;
- L3-全剖长度, 默认5mm长;
- L4-S-导线导体横截面积长度, 默认0.5mm²长;

#### 安装效果预览 Installation Effect Preview

