HBS1GQ 金属按钮系列

型号说明 Model Explanation

HBS1GQ ★ ■ - □ ◇ ■ / ◆ / △ / ▲ / ◎ / ★

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	带灯灯类型 Lamp Type	操作类型 Operation Type	接线类型 Terminal Type	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
HBS1GQ	19: Ø19mm 22: Ø22mm 25: Ø25mm 30: Ø30mm	F: 平圆形 F: Flat Round	11: 1NO 1NC	D: 单点 E: 环形 ET:环形电源符号 D:Dot E:Ring ET: Ring Power Symbol	Z: 自锁式 无:自复式 Z: Latching No letter Z: Momentary	J: 接线插片 L: 接线柱 J: Pin Terminal L: Screw Terminal	R Red G Green Y Yellow O Orange B Blue W White RG RB	AC/DC6V AC/DC12V AC/DC24V AC/DC36V AC/DC110V AC/DC220V 其他电压等级可以做 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 Gd 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(针对金属材质)
环境温度	Operating Temperature	-40℃~+80℃		防护等级	Degree of Protection	IP 65
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
开关结构	Contact Type	双断点快动触头 Double-break fast-motion changeover contact		基座 Base material	塑料底座 Plastic base
开关组合	Contact Configuration	1NO 1NC		触点 Contact material	银合金 Silver alloy

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20mA about 20mA
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 RG RB
				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

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.

双色发光 Double color light

高亮LED发光、基本发光颜色5种：(红绿黄蓝白)基它可定制；
双色发光及基本型是切换正负极。

开关结构说明 Switch Structure Explanation

型式 Type	符号 Symbol	示意图 Diagram	说明 Explanation
Za			具有四个端子的双断点快动转换触头开关 Double break snap-action changeover contacts switch with four terminals.

引脚说明 Pin Description

示意图 Diagram

说明 Explanation

- 1、2为常闭触头NC；
- 3、4为常开触头NO；
- +、-脚为灯珠引脚，常规灯珠配置无正负极区分；
- 灯珠与开关相对独立，可通过开关或外围电路控制灯珠状态。

- Pin1, Pin2 is normally closed contact NC；
- Pin3, Pin4 is normally open contact NO；
- +, - pins are LED lamp pins, normal lamp configuration has no differentiate between positive and negative；
- LED and switch pin are separated, but switch and external circuit can control the LED state by connecting the LED pin.

HBS1GQ 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：

- 选择合适的电烙铁，加快焊接速度，建议使用30W以下电烙铁在320℃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JK08。

Pushbutton use 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

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
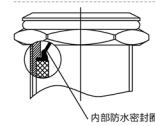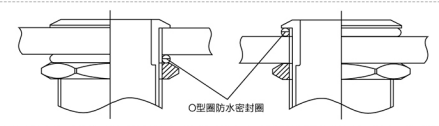
标识定做 Identification custom

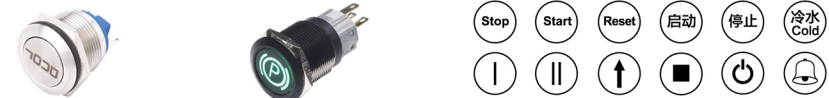金属按钮开关的按键表面可以激光刻字、图案或发光文字与图案，可根据客户要求定制。具有新颖与美观性，并替代指示标牌的作用。

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

Stop Start Reset 启动 停止 冷水Cold

定制尾部接线方式 Terminal can be customized

安装效果预览 Installation Effect Preview