

HBS1-B 按钮开关系列



型号说明 Model Explanation

系列号 Series Number	头部形状 Front Shape	触点结构 Contact Configuration	操作类型 Operation Type	操作位置 Operation Position	带灯部分电压 LED Voltage	颜色 Color	防护等级 Degree of Protection
HBS1-B Ø16mm	Y: 圆形 F: 方形 J: 矩形 M: 蘑菇头 DF: 大方形 DJ: 大矩形 Y: Round F: Square J: Rectangle M: Mushroom DF: Big Square DJ: Big Rectangle	11: 1NO 1NC 22: 2NO 2NC 33: 3NO 3NC	D: 指示灯 Z: 自锁按钮 X: 选择按钮 Y: 钥匙按钮 TS: 急停按钮 无字母: 自复按钮 D: Indicator Z: Latching X: Selector Switch Y: Key Switch TS: Emergency Stop Switch No letter: Momentary	◇ 选择钮及钥匙钮的操作位置 Operation position of Selector switch and Key-lock switch 2: 二位 2Position 3: 三位 3Position ◆ 选择钮及钥匙钮动作类型 Action of Selector Switch and Key-lock Switch 1: 保持式 Latching 2: 右自复式 Right-momentary 3: 全自复式 Full-momentary 4: 左自复式 Left-momentary	见LED灯珠规格; 信号灯有两极 变色, 可定制。 See the table of LED Rating; LED poles change color, can be customized.	R Red G Green Y Yellow O Orange B Blue W White N Black T Transparent	IP40, IP65, IP67(IP67需 加密封胶罩) IP40, IP65, IP67 (IP67 need cover)

性能参数 Parameters

环境温度 Operating Temperature	-25℃ ~ +55℃ (无冰冻/照明开关本体周围 必须空气流通 (No freezing) Keep the air flowing around illuminated pushbutton)	介电强度 Dielectric Strength	触点与灯珠引脚之间 Contact between lamp bead pin 2000V, AC50Hz, 1min 同极端子之间 Between same class terminal 1000V, AC50Hz, 1min
环境温度 Operating humidity	45~85%RH(无结露) Non condensing	机械寿命 Mechanical Life	不同电极端子之间 Between different electrode terminal 100万次 1,000,000 times
触点材料 Contact material	银 Silver 银氧化镉 Silver cadmium oxide 银镀金, 镀层厚 3µm Silver plated gold, Plating thickness 3µm	电气寿命 Electrical Life	3万次以上 Above 30,000 times
接触电阻 Contact Resistance	≤ 50mΩ	接线 Wiring	焊接线直径 Dia of welding line 2 × 0.8mm ² 最大铜线面积 Max copper wire area 0.75mm ² 镀金接线插片 Wiring insert 2.8 × 0.5mm ²
绝缘电阻 Insulation Resistance	≥ 100MΩ	操作行程 Operating distance	(按钮)约3mm (Buton)About 3mm
耐振抗性 Vibration Resistance	50Hz, 振幅约1.2mm 50Hz, Amplitude about 1.2mm		
耐冲击性 Shock resistance	> 10g		

开关额定值 Switch Rating

发热电流 I _{th} Conventional thermal current	5A 温度不超过最大额定值所允许的电流 5A (Temperature not more than the maximum allowed continuous working current)
额定电压 Rated Voltage	24V 125V(110V) 250V(220V)
直流 DC	2A 0.2A 0.1A
交流 AC	PF=1 5A 5A PF=0.7 3A 2A

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)	灯珠等效电路 Lamp Equivalent Circuit
额定电压 Rated Voltage	1.8V、2.8V、6V、12V、24V、36V、110V、220V	
额定电流 Rated Current	约20mA about 20mA	
发光颜色 Color	R G Y O B W	
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

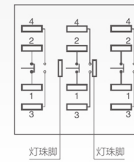
开关结构说明 Switch Structure Explanation

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点开关 Double break snap-action changeover contacts switch with four terminals.

HBS1-B Series Pushbutton Switches



引脚说明 Pin Description



- 最多可配置3组开关
- 1, 2, 3, 4 为一组开关
- 1、2为常闭触点
- 3、4为常开触点
- 常规灯珠配置无正负极区分, 灯珠已内置保护电阻无需外接。
- 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。
- Pin 1, 2, 3, 4 are a set of switch
- NC pin 1, pin 2 is normally closed contact NC.
- NO pin 3, pin 4 is normally open contact Number
- Normal lamp configuration has no differentiate between positive and negative. LED has built-in protection resistors, no need external connection.
- LED and switch pin are separated, but switch and external circuit can control the LED state by connecting the LED pin.

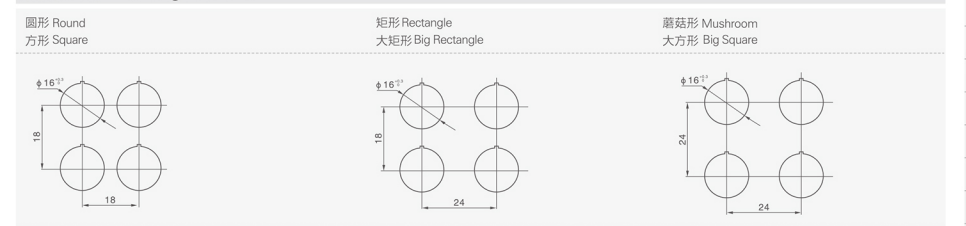
选择钮、钥匙钮操作位置 Operation position of Selector switch and Key switch

区分 Sort	复位方式 Reset Style		钥匙拔出位置 Key/out Positon								
	自锁 Latching	自复 Momentary									
2段 2Position 代号 Code	21	23	A	B	D						
3段 3Position 代号 Code	31	32	34	33	A	B	C	D	E	F	G

选择/钥匙开关旋转角度90°是基本 Selector/Key switches basic rotation angle 90°

操作位规格 Operation	触点 Contact
90° 2位 2 Position 自锁 Latching 自复 Momentary	1NO1NC 2NO2NC
45° 3位 3 Positon 自锁 Latching 左锁右复 Left lock Right reset 左复右锁 Left reset Right lock 自复 Momentary	3NO3NC

安装孔尺寸 Mounting Hole Size



安装效果预览 Installation Effect Preview

