



上海红波电器有限公司

SHANGHAI HONGBO ELECTRIC CO.,LTD.

## 规格书

### Specification

产品类别 (product type): 防水金属开关 Waterproof metal switch		
产品名称 (product name): $\Phi$ 16mm Anti-vandal Metal Push button switch		
产品编号 (part No.): HBGQ16B-10/G		
签核 (Signatures)		
核准 (Approved)	审核 (Checked)	制定 (Drawn)

客户 (Customer)		
公司名称 (Corporation):		
物料名称 (Part No.): HBGQ16B-10/G		
客户确认 (Customer Signatures)		

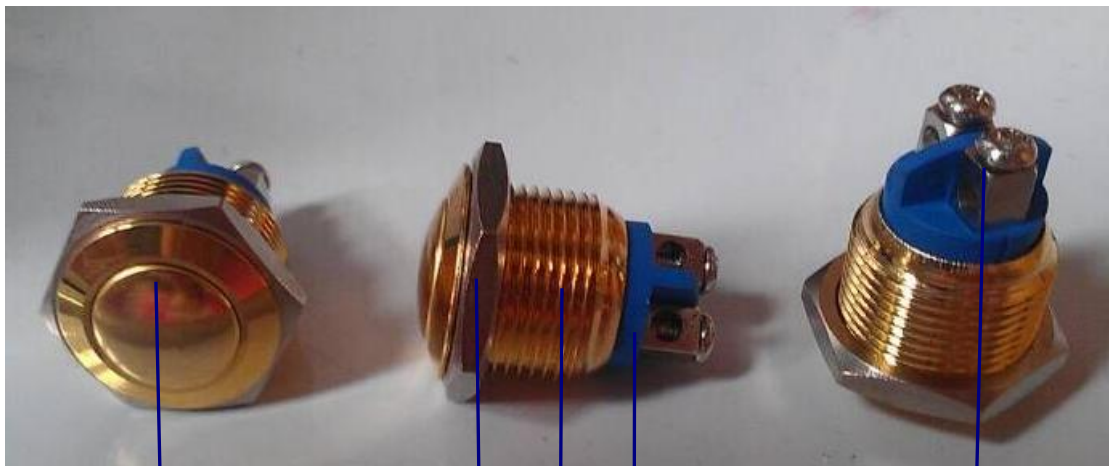
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# 上海红波电器有限公司

SHANGHAI HONGBO ELECTRIC CO.,LTD.

<b>Part No.: HBGQ16B-10/G</b>	
<b>Feature</b>	<b>特征</b>
*Waterproof, IP65	*防水, IP65
*Destruction resistance, IK08	*抗破坏, IK08
*Screw Terminal	*接线柱
<b>Descriptions</b>	<b>描述</b>
*The crust of this push button switch with diameter $\Phi 16\text{mm}$ is Gold-plated brass 按钮外壳是黄铜镀金	*这款 $\Phi 16\text{mm}$
<b>Applications</b>	<b>应用</b>
*Shipping	*船舶
*Security Equipment	*安防设备
*Household appliance	*家用电器
*Medical equipment	*医疗设备
*Etc.	*等等
<b>Package dimension</b> (产品外型尺寸)	



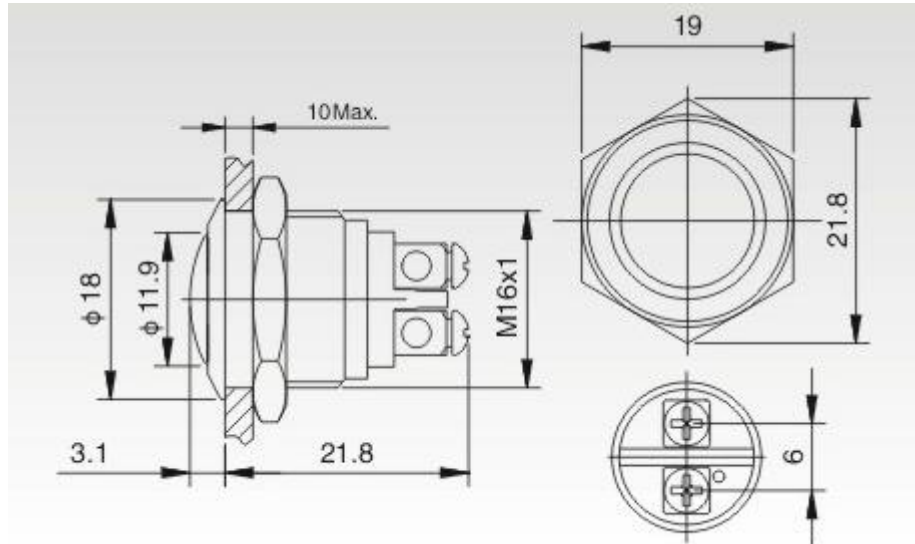
1. 按键 Button: 不锈钢 Stainless Steel

2. 螺母 Nut: 黄铜镀镍 Nickel-plated Brass

3. 外壳 Crust: 不锈钢 304 Stainless Steel 304

4. 基座 Base:PBT

5. 黄铜螺丝脚 Screw terminal: Chrome-plated Brass 62



安装孔尺寸 Mounting Hole Size:  $\Phi 16$ mm

开关组合 Contact Configuration: 1NO 1 常开

额定值 Rating Value: 2A/36V DC



操作方式 Operation Type: Momentary 自复式

外壳材料 The Crust Material: Stainless Steel 不锈钢

防护等级 IP Degree: IP65, IK08

开关结构说明 Switch Structure

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

Type	Symbol	Diagram	Pin Description
X			  HBGQ12F-10E/J      HBGQ12-10 HBGQ16F-10E/J      HBGQ16-10 HBGQ19F-10E/J      HBGQ19-10
Y			<p>1. Double-break slow-motion contact with two terminals. Individual products can be custom made Y-type normal closed switch, pls refer to product description.</p> <p>2. LED and switch pin are separated, but switch and external circuit can control the LED state by connecting the LED pin.</p> <p>3. Switch Rating: 2A/36V DC; Pin terminal: 3*0.5mm</p>

## 主要参数 Main technical parameter

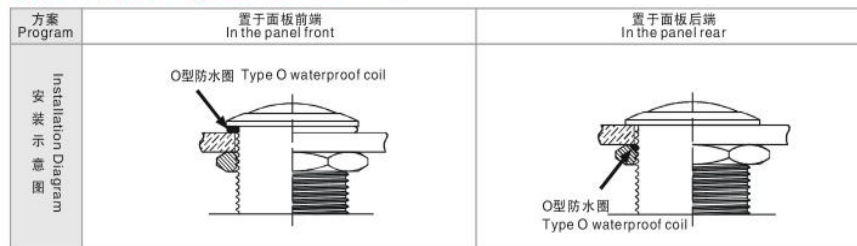
产品规格 Specification	HBGQ16B-10/G
头部形状 Head shape	球形 Domed
引脚类型 Terminal type	接线柱 Screw terminal
开关规格 Switch type	X(双断点慢动触头)X(Double-break point slow-motion contact)
接触电阻 Contact Resistance	$\leq 50m\ \Omega$
绝缘电阻 Insulation Resistance	$\geq 1000M\ \Omega$
绝缘强度 Dielectric Indensity	2000VAC
环境温度 Operating Temp	-20℃- +55℃
机械寿命 Mechanical Life	1,000,000 cycles
电气寿命 Electric Life	5,0000 cycles

面板厚度 Panel thickness		1 -10mm
螺母扭矩 Nut Torque		5-14Nm
防护等级 Protection Degree		IP65,IK08
材料 Material	触点 Contact	银合金 Silver Alloy
	按键 Button	黄铜镀金 Gold-plated brass
	外壳 Case	黄铜镀金 Gold-plated brass
	基座 Base	PBT

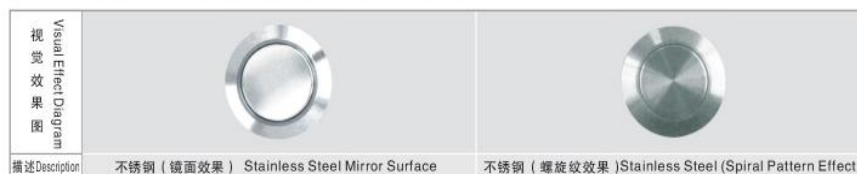
## 包装 Package



### 防水圈安装方法 Waterproof coil installation method



### 外壳材质视觉对比 Visual contrast of the crust material



注：外壳可按要求定制加工上色（外壳材料需改用铝合金）。

Note: The crust can be customized processing of color (crust material will be diverted to use aluminum).

### 部分产品焊接注意事项 Some products Welding Note

任何不正确的焊接操作都可能导致产品塑性变形、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20W电烙铁3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 incorrect welding operation may lead to product plastic deformation, the switch is bad contact. Users in the use of pin type button switch, signal light, the phenomenon of improper welding cause damage occurred, therefore I would urge users in the terminal operation is important to note the following points:

- Select the appropriate electric iron, to speed up the weldingspeed, it is recommended to use 20W soldering iron within 3 seconds to complete welding.
- The amount of flux must be welded to make the switch to pin down.
- Maximize the use of the plug wire terminal connection, to avoid the welded connection.