



# 规格书

## SPECIFICATION

CUSTOMER NAME 客户名称: \_\_\_\_\_  
 CUSTOMER NO. 客户编号: \_\_\_\_\_  
 SERIES 系列: 金属按钮开关 Φ 10mm  
 MODEL NO. 型号: XB-PBM10 (Φ 10mm) series  
 DRAWING NO. 图形号: Metal button switch Φ 10mm

If specification of this product meets your request, please confirm all the items of it and return to us with signature and stamp, it will be basis of our production and record. Thanks your cooperation in advance!

若此产品规格符合贵司要求，敬请确认此规格书内所有项目  
 并签名和盖章后回传给我司，以作我司产品制作之  
 依据和存档之用，多谢合作！

### EXAMINE & APPROVAL 审批

APPROVE 接受	NOT APPROVE 不接受
SIGNATURE 签署      STAMP 盖章      DATE 日期	

PREPARED BY. 制表人	CHECKED BY. 校对	APPROVED BY. 审核	APPROVAL BY. 批准
<div style="border: 1px solid red; padding: 2px;">研发部</div> <div style="border: 1px solid red; padding: 2px;">戴海明</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>	<div style="border: 1px solid red; padding: 2px;">品质部</div> <div style="border: 1px solid red; padding: 2px;">黄自清</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>	<div style="border: 1px solid red; padding: 2px;">工程部</div> <div style="border: 1px solid red; padding: 2px;">庞军</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>	<div style="border: 1px solid red; padding: 2px;">总经理办</div> <div style="border: 1px solid red; padding: 2px;">吴量</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>

### 东莞市溪榜电子有限公司

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 Country/Region: Hong Kong  
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 MAil: XB@ALPSR.CN    XB@ALPSR.COM    HK@ALPSR.CN  
 Quality core! Afterburner for Made in China!

	<b>东莞市溪榜电子有限公司</b> DONG GUAN XI BANG ELECTRONICS CO., LTD			文件编号	XB-RD-001
				版 号	A-5
	XB-PBM10 (Φ 10mm) SERIES 检验规范总则			页 次	1/3
审核	庞东	批准	贺龙飞	生效日期	2024. 02. 18

### 1. General 一般事项:

1-1 Application: This specification is applied to the switch used in electronic equipment.

适用范围: 本规格主要适用于一般电子设备之开关。

1-2 Operating Temperature Range 使用温度范围: -20℃~85℃

Operating Humidity Range 使用湿度范围: 10%~85% ;

1-3 RH 相对湿度: 45~85%.

1-4 Atmospheric Pressure 气压: 860~1060mbr.

1-5 Storage temperature and humidity requirements 储存温湿度要求:

Temperature 温度:-5~30℃

Humidity 湿度: 20%~75%

### 2.Appearance Construction and Dimensions 外观、结构、尺寸:

2-1 Appearance: Push button switch shall have good finishing, and shall have no rust, crack or plating failure.

外观: 各部分之加工须良好, 开关上下不能生锈、刮伤、裂痕电镀不良及剥离等现象产生。

2-2 cleansing condition: Switch's surface shall avoid contact with oil sludge and shall not be exposed to the air for a long time.

清洁条件: 避免开关表面与空气长时间接触及油渍水溶剂沾污。

2-3 Construction and Dimensions: As per product drawing.

结构及尺寸: 依组立图。

### 3. Rating 电器等级:

2A 36V DC;

### 4.Electronic performance 电器性能:

	Property 项目	Test Conditions 测试条件	Standards 判定标准
4.1	Contact Resistance 接触阻抗	Measure by micro-ohm meter at DC <u>0.2</u> V, <u>1A</u> 以微欧姆计之 DC <u>0.2</u> V <u>1A</u> 测之.	Max <u>50</u> mΩ <u>50</u> mΩ 以下
4.2	Insulation Resistance 绝缘阻抗	Measure with DC.500V applied between terminals of open contacts and between terminals of opposite polarity. 以 <u>500VDC</u> 于开路之端子间,及不同回路端子间.	More than <u>100</u> MΩ <u>100M</u> Ω 以上
4.3	Dielectric withstand Strength Test 耐电压	between terminals of open contacts and between terminals of opposite polarity, and between terminals and frame as following. 开关须施以一分钟电压于开路之端子与端子间,不同两极之端子间及外壳与端子间,以下列额定电压测之. 1500 volts for a switch rated more than 250VAC 额定 250VAC 以 1500 伏特测之	A switch shall withstand for 1 minute without breakdown or arc in a potential applied 1 分钟内不能有电弧导通或火花产生



5. Mechanical performance 机械性能:

	Property 项目	Test Conditions 试验条件	Standards 判定标准						
5.1	Pull test 拉力测试	A static force of 6.6 pound(3kg) being applied in one direction on the tip of the terminal for 1 minute. 拉力测试:施拉以同一方向之 6.6 磅静力(3 公斤)于端子前端一分钟.	The terminal may be deformed, but shall not sustain any trouble as deviation and breaking of terminal and breaking of insulation material 端子可允许变型,但不能有脱离,断裂及开关本体之绝缘部位破坏现象						
5.2	Terminal strength 端子强度测试	A static load of <u>3kgf</u> shall be applied in one direction on the tip of the terminal , there is no subsidence for the terminal of the switch. 在开关端子上施以 <u>3kgf</u> 开关端子无下陷.	Electrical characteristics shall be satisfied, there shall be no distinct looseness or deformation in mechanical system 满足电气性能, 机械性能方面没有明显的松动和变形。						
5.3	Operating Force 操作力	The switch should be cable of being operated within a force of 450gram±150gram 开关能够在 450g±150g 范围内动作	Tolerance: ±150g						
5.4	Soldering condition 焊锡条件	<p>Temperature and duration of dipping 焊锡温度和浸入时间:</p> <table border="1"> <thead> <tr> <th>Terminal of lead 导线端子</th> <th>Temperature 温度 (°C)</th> <th>Time 时间 (秒)</th> </tr> </thead> <tbody> <tr> <td>Manual Soldering 手工焊锡</td> <td>350±5°C</td> <td>3±0.5sec</td> </tr> </tbody> </table> <p>Note 注意: 1.This product is strictly prohibited wave soldering and reflow soldering, please use the manual welding processing, temperature of 350±5°C and time is 3±0.5 seconds; 本产品严禁使用波峰焊和回流焊, 请使用手工焊接加工, 温度为 350±5°C, 时间为 3±0.5 秒; 2.Products after soldering, do not use any solvent to clean, avoid solvent to infiltrate inside the product impact performance. 产品焊接后, 严禁用任何溶剂来清洗, 避免溶剂渗透到产品内部影响性能。</p>	Terminal of lead 导线端子	Temperature 温度 (°C)	Time 时间 (秒)	Manual Soldering 手工焊锡	350±5°C	3±0.5sec	No abnormalities shall be observed in appearance and operation. 外观无显著变型及动作无异常.
Terminal of lead 导线端子	Temperature 温度 (°C)	Time 时间 (秒)							
Manual Soldering 手工焊锡	350±5°C	3±0.5sec							



东莞市溪榜电子有限公司

DONG GUAN XI BANG ELECTRONICS CO., LTD

Metal Button Switch series 检验规范总则

文件编号

XB-RD-001

版 号

A-5

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5.5	Mechanical life test: 无负载机械寿命测试	The switch applied without electric load 未施电器负载的情况下测试	The switch should operate at least 50000 times, without mechanical failure 开关动作次数超50000次
5.6	Load life test: 负载寿命测试	The switch applied electric load 电器负载的情况下测试	The switch should operate at least 10000 times, without mechanical failure 开关动作次数超过 10000 次
5.7	Travel 行程	Push by recommended operating condition: $2.0 \pm 0.5$ mm 行程: $2.0 \pm 0.5$ mm	Tolerance: $\pm 0.5$ mm
5.8	Waterproof test 防水测试	Panel IP67 waterproof test 面板 IP67 防水测试	Switch function is normal, no water inside. 开关功能正常, 内部无进水现象.
5.9	Torque test 扭力测试	Torque wrench or related equipment testing 扭力扳手或相关仪器测试	Torque range: 扭力范围: 5~14NM

## 6 Weather Proof 耐候性

	Property 项目	Test Conditions 试验条件	Standards 判定标准
6.1	Cold Proof 耐寒性	Inlet socket for testing being kept in the normal condition at $-20 \pm 2^\circ\text{C}$ for 96 hours, then to be measured within 1 hour after drops of water being taken away. $-20 \pm 2^\circ\text{C}$ 放置 96 小时试验后, 置于常温常湿中 1 小时; 除去水滴后, 在一小时内测试之。	1. Max Contact Resistance: $50 \text{ m}\Omega$ 接触阻抗: $50 \text{ m}\Omega$ 以下  2. Clause 4.3 shall be satisfied 必须满足 4.3 项  3. No abnormalities shall be observed on the appearance and construction.. 外观构造无异常现象。
6.2	Hot Proof 耐热性	Inlet socket for testing being kept in the normal condition at $85 \pm 2^\circ\text{C}$ for 96 hours, then to be measured within 1 hour. $85 \pm 2^\circ\text{C}$ 放置 96 小时试验后, 置于常温常湿中 1 小时; 在一小时内测试之。	
6.3	Resistance to humidity 耐湿性	Inlet socket for testing being kept in the normal condition at $40 \pm 2^\circ\text{C}$ , and 90~95%HR for 96 hours, then to be measured within 1 hour after drops of water being taken away. $40 \pm 2^\circ\text{C}$ , 相对湿度 90~95% 下, 放置 96 小时试验后, 置于常温常湿中 1 小时; 除去水滴后, 在一小时内测定之。	

# METAL BUTTON SWITCH XB-PBM10 (10MM) SERIES

## HOW TO ORDER 采购识别码

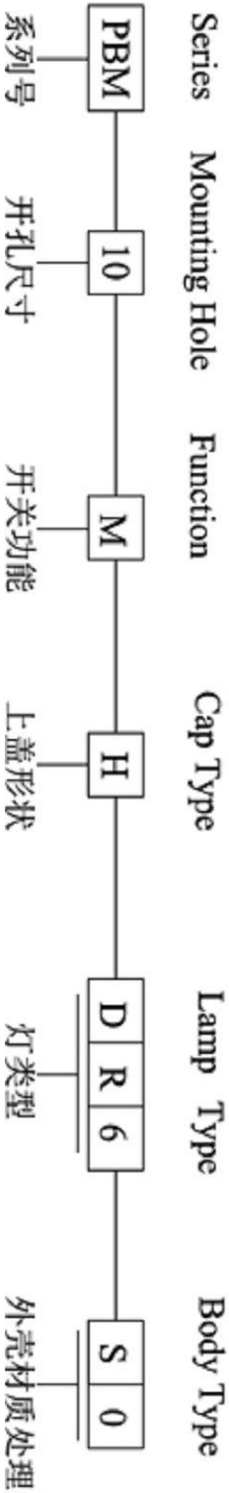


Series 系列号	Function 开关功能		Operation type 操作类型		Button Type 按键类型	
	Switch Assemble 开关组合	2P	M	Momentary 自锁	H High 高柄	T T字高柄
	11	2P	M	Lock		
	13	3P	Z			

Light Type 发光形状	Lamp Type 灯类型		Lamp Color 灯颜色		Lamp Voltage 灯电压	
	-	Without LED	-	White 白色	-	Without LED
R	Ring 环状	G	Green 绿色	12	12V	
D	Spot 点状	Y	Yellow 黄色	220	220V	

Body Material 外壳材质		Body Type 外壳类型	
B	Brass 黄铜	0	Without Surface Plated 本色
S	SUS 不锈钢	1	Mirror Chrome plated 镜面镀铬
Z	Zn Alloy 锌合金	2	Mirror Nickel plated 镜面镀镍
A	Al Alloy 铝合金	3	Mirror Gold plated 镜面镀金

4	Velour Chrome plated 丝绒铬
5	CD Pattern CD纹
6	Black oxide 发黑
7	Blast sanding 喷砂
8	Yellow oxidation 氧化黄色
9	Red oxidation 氧化红色



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东莞市溪榜电子有限公司  
DONG GUAN XI BANG ELECTRONICS CO., LTD

TITLE : METAL PUHS BUTTON SWITCH

MODEL :



TOLERANCE  
<=1.5mm±0.1  
> 1.5mm±0.2  
>=10mm±0.3

ANGLE  
±2°

UNIT :	MM	DWN.	ZENQ. CHEN	DATE	
SCALE :	3 : 1	CHEK'D	PENG. GAO	DATE	
VERSION	01	APPD.	FEI.LONG. HE	DATE	

7	SPRING	STEEL WIRE	1	NATURE
6	STEEL BALL	STEEL	1	NATURE
5	BOARD	PHENOLIC RESIN	1	NATURE
4	CONTACT CLIP	PBS STRIP	2	Ag PLATED
3	FRAME	IRON STRIP	1	NI PLATED
2	TERMINAL	BRASS STRIP	8	Ag PLATED
1	KNOB	POM	1	BLACK
NO.	PART NAME	MATERIAL	QTY	FINISHING