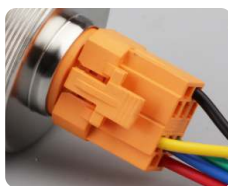




头部防水IP67



专用接插件



多种灯光颜色及发光类型



1NO1NC/2NO2NC镀金插脚



外壳可定制其他颜色

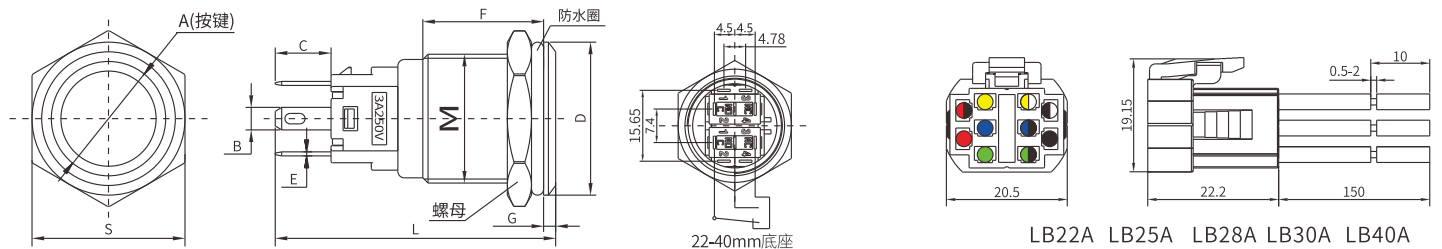
型号说明/选型, 写法举例: LB22A-P22Z/ER9-24V/S(L)

对应编号	LB	●●	●	—	●	●●	●	/	●	●	●●	/	●	L	
	1	2	3		4	5	6		7	8	9		10	11	
1	LB	LANBOO 蓝波代码													
2	安装孔径	22mm													
3	系列号	A—常规系列													
4	头部形状	P—平头, 定制:G—高头													
5	开关组合	11—1NO1NC 1常开1常闭触点, 22—2NO2NC 2常开2常闭触点, 快动单触点													
6	动作形式	Z—自锁式(保持式), F—自复式(点动式)													
7	发光形状	E—环形, E+DY—环形+电源符号, DY—电源符号, D—单点(中心灯)													
8	发光颜色	R—红色, G—绿色, B—蓝色, 定制:Y—黄色, W—白色, 双色、三色													
9	LED 电压	9-24V, 220V, 定制:3-8V, 25-48V, 110V, AC/DC 通用													
10	外壳材质	S—不锈钢, 可定制:A—铝氧化(22A、25A不需定制)、ST—不锈钢镀钛													
11	(L)	内部代码													

性能参数

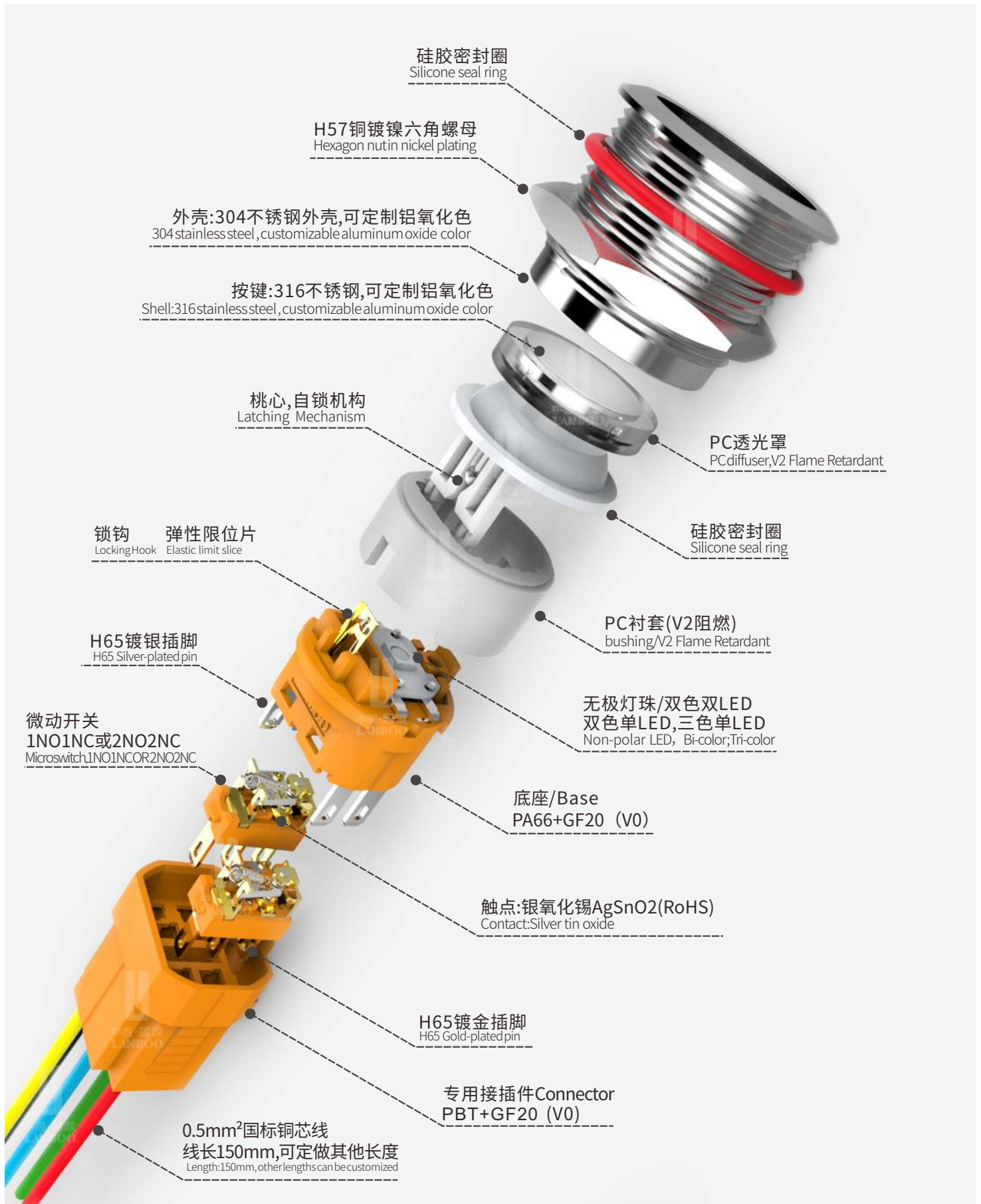
开孔直径	对应孔径+0.2mm, 例如:LB22A为22.2mm
外壳	304不锈钢 (RoHS), 可定制:6063铝氧化 (RoHS)、ST—不锈钢镀钛
按键	316不锈钢 (RoHS), 可定制:6063铝氧化 (RoHS)、ST—不锈钢镀钛
透光材料	PC (RoHS), V2 级阻燃
螺母	H57/59铜镀镍, 可定制:304不锈钢 (RoHS)
O型圈	硅胶 (RoHS)
触点	银氧化锡AgSnO2 (RoHS)
底座	PA66 (RoHS), V0 级阻燃
引脚	H65镀金/银 (RoHS)

安装面板厚度	≤12mm
拧紧力矩	0.8-1.2N.m
螺纹验证	将螺母锁紧至垫圈明显变形, 然后拆下, 如此循环 5 次, 无异常
动作行程	总行程: 3.2±0.1mm, 接通过程: 2±0.2mm
按压力	1NO1NC: 4.5±0.5N, 2NO2NC: 5.5±0.5N
接线形式	引脚式, 可选配套接插件
耐焊性	≤380°C (25~50W 电烙铁), ≤2 秒
插片可焊性试验	各引脚分别焊接 1mm ² 电线, 30N 正向拉力后, 无脱落
与线束的配合试验	150mm 线长, ≤50mΩ, LED 灯通电无闪烁, 拉开力: 无灯 (3脚) 20~35N, 带灯 (8脚) 40~65N (卡扣松开情况下)
引脚反向推力	≥50N 无位移, 1min
头部防脱顶牛	≥200N, 1min
工作环境温度	-40°C~+80°C, 非真空状态、不结冰情况下
工作环境湿度	45~90%RH
贮存环境温度	包装完好情况下, -40°C~+55°C
贮存环境湿度	包装完好情况下, 45~90%RH
防护等级	防水 IP65, 可定制 IP67, 防撞 IK10 (参考 GB/T 20138)
约定发热电流	I _{th} : 5A, 250VAC
电阻性负载	AC-15: 110V: 1A, 220V: 0.5A DC-13: 12V/24V: 1A
电感性负载	AC-15: 110V/220V: 0.2A DC-13: 110V: 0.2A
接触电阻	≤50mΩ
绝缘电阻	≥1000MΩ
抗电强度 (工频耐压)	1500VAC, 50HZ, 1min
触点最小适用负载	3V AC/DC, 5mA (参考值, 取决于环境与负载情况)
耐振性	XYZ 三向, 60HZ, 振幅 2mm
产品防跌落	头部竖直跌落 1 米, 3 次, 能正常工作
包装跌落	600mm 高度连续跌落 4 次, 产品无损坏
温升	按 GB/T14048.5 标准中 8.3.3.3 条款
盐雾试验	72h, 3 个周期, (参考 GB/T 2423.18-2012)
低温试验	-40°C, 96h, 接触电阻 ≤200mΩ、按压力变化值 ≤30%, LED 正常
高温试验	80°C, 96h, 接触电阻 ≤200mΩ、按压力变化值 ≤30%, LED 正常
高低温冲击试验 (含 LED 灯加速老化试验)	-40~+85°C, 85%RH, 40min/循环, 50 个循环, 接触电阻 ≤200mΩ、按压力变化值 ≤30%, LED 正常
电气寿命	阻性负载 AC220V/1A、DC24V/1A: 10 万次, AC220V/3A、DC24V/3A: 5 万次, AC220V/5A、DC24V/5A: 0.5 万次, (参考 GB/T14048.5)
机械寿命	自锁: 30 万次, 自复: 100 万次, (参考 GB/T14048.5)
极限按压测试	在底部保持 5s 时间, 再松开, 4 次/min, 进行 2000 次试验
ESD 静电	人体模式: 2KV, 可定制 8KV
LED 额定电流	≤24V, ≤20mA; >24V, ≤10mA
LED 灯珠类型	贴片无极双芯片 LED
LED 降压方式	内置降压电阻
LED 寿命	≥50000h (参考值)
产品认证	CCC CE RoHS (定制) REACH (定制)
专利号	ZL201630425901.5、ZL201621035294.2
质保	66 个月



型号	尺寸	S	A	B	C	E	F	L	G	D	M	触点类型
LB22A	S25	∅18	2.8	7	0.5	15	35	1.5	∅25	M22X1	1NO1NC/2NO2NC	
LB25A	S28	∅22	2.8	7	0.5	15	35	1.5	∅28	M25X1	1NO1NC/2NO2NC	
LB28A	S31	∅22	2.8	7	0.5	15	35	1.5	∅31	M28X1	1NO1NC/2NO2NC	
LB30A	S34	∅22	2.8	7	0.5	15	35	1.5	∅33	M30X1	1NO1NC/2NO2NC	
LB40A	S45	∅22	2.8	7	0.5	15	35	1.5	∅43	M40X1	1NO1NC/2NO2NC	

●● 灯脚线 ●● 双色或三色灯脚线 ●● NC线 ●● NO线 ●● C脚进线
 使用 0.5mm² 电线, 线长 150mm, 可定做其他规格线长





中国·蓝波
LANBOO

蓝波大电流开关
Pioneer of High-Current Switches

CE RoHS Intertek ISO9001 多项专利

LB22A Specification
Metal button switch



IP67



Connector



Colorful LED



1NO1NC/2NO2NC



Custom color

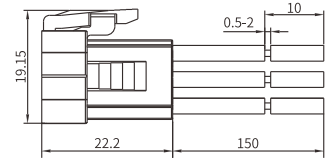
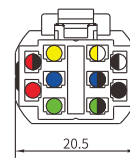
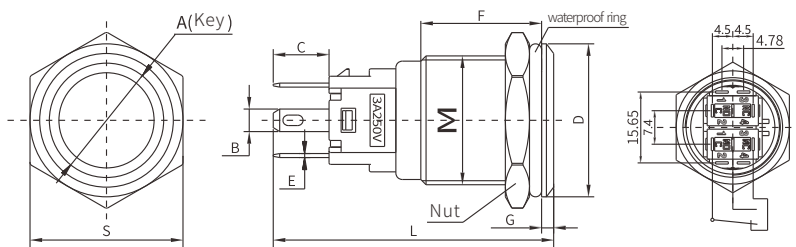
Model Description/Selection, Example:LB22A-P22Z/ER9-24V/S(L)

The Corresponding Number	LB	●●	●	—	●	●●	●	/	●	●	●●	/	●	L	
	1	2	3		4	5	6		7	8	9		10	11	
1	LB	LANBOO													
2	Install Diameter	22mm													
3	Series No.	A - Regular series													
4	Head Shape	P - Flat head, customized: G - tall head													
5	Switch Combination	1NO1NC , 22—2NO2NC													
6	Operation Type	Z-Latching,F-Momentary													
7	Luminous Shape	E - ring, E+DY - ring + power symbol, DY - Power symbol, D - Single point (center light)													
8	LED Color	R -Red, G -Green, B -Blue, custom: Y -Yellow, W -White, Bi-color Tri-color													
9	LED Voltage	9-24V, 220V, customized: 3-8V, 25-48V, 110V, AC/DC general purpose													
10	Shell Material	S -Stainless steel, customizable: A -Aluminum Oxidation (22A, 25A does not need to be customized), ST -Stainless steel titanium plating													
11	(L)	Internal code													

The performance parameters

Hole Diameter	Corresponding aperture +0.2mm, for example: LB22A is 22.2mm
Shell	304 stainless steel (RoHS), customizable: 6063 aluminum oxide (RoHS), ST-stainless steel titanium plating
Key	316 stainless steel (RoHS), customizable: 6063 aluminum oxide (RoHS), ST-stainless steel titanium plating
Pervious To Light Material	PC (RoHS), V2 flame retardant
Nut	H57/59 Nickel copper plating, customizable: 304 stainless steel (RoHS)
O-Ring	Silica gel (RoHS)
Contact Material	AgSnO2 silver oxide (RoHS)
Base Seat	PA66 (RoHS), Grade V0 flame retardant
Pins Material	H65 Gold plated/Silver (RoHS)

Mounting Panel Thickness	≤12mm	
Nut Tightening torque	0.8-1.2N.m	
Thread Verification	Lock the nut until the washer is visibly deformed, then remove the nut. Repeat 5 times no abnormalities	
Action Stroke	Total stroke: 3.2±0.1mm, connecting stroke: 2±0.2mm	
Operation Pressure	1NO1NC:4.5±0.5N, 2NO2NC:5.5±0.5N	
Connection Mode	Pins , Special connector can be selected	
Soldering Resistance	≤380°C (25~50W Electric soldering iron) , ≤2 seconds	
Weldability Test For Inserts	Each pin is welded with 1mm ² wire, 30N forward tension without falling off	
Matching test with wiring harness	Wires length 150 mm, ≤ 50mΩ, Power on, LED flicker free, Pull force: Without LED 20~ 35N, With LED 40 ~ 65N (When the buckle is loosened)	
Pins Welding Strength	≥50N, 1min	
Head Anti-off Strength	≥200N, 1min	
Working Environment Temperature	-40°C~+80°C, Non-vacuum, non-freeze	
Working Environment Humidity	45~90%RH	
Storage Ambient Temperature	Packing in good condition, -40°C~+55°C	
Storage Ambient Humidity	Packing in good condition, 45~90%RH	
Protection Level	Ip65, customized IP67, IK10 (Reference GB/T 20138)	
Rated thermal current	Ith:5A, 250VAC	
Resistive Load	AC-15:110V:1A, 220V:0.5A	DC-13:12V/24V:1A
Inductive Load	AC-15:110V/220V:0.2A	DC-13:110V:0.2A
Contact Resistance	≤50mΩ	
Insulation Resistance	≥1000MΩ	
Dielectric Strength	1500VAC, 50HZ, 1min	
Min. Applicable Load For Contact	3V AC/DC, 5mA (Reference value, depending on the environment and load)	
Resistance To Vibration	XYZ, 60HZ, The amplitude 2mm	
Product Fall-Proof	Head vertical drop 1 meter, 3 times, can work normally	
Packaging Fall-Proof	600mm height continuous drop for 4 times, no damage to the product	
Temperature Rise	According to clause 8.3.3.3 in GB/T14048.5 standard	
Salt Spray Test	72H, 3 cycles (refer to GB/T 2423.18-2012)	
Low Temperature Test	-40°C, 96h, Contact resistance≤200mΩ, Change in pressure≤30%, LED Normal	
High Temperature Test	80°C, 96h, Contact resistance≤200mΩ, Change in pressure≤30%, LED Normal	
High And Low Temperature Impact Test	-40~+85°C, 85%RH, 40min/Circulation, 50 Circulation, Contact resistance≤200mΩ, Change in pressure≤30% LED Normal	
Electrical Life	Resistance load AC220V/1A, DC24V/1A: 100,000 times, AC220V/3A, DC24V/3A: 50,000 times, AC220V/5A, DC24V/5A: 5,000 times, (refer to GB/T14048.5)	
Mechanical Life	Latching: 300,000 times, Momentary: 1 million times, (refer to GB/T14048.5)	
Limit Press Test	Keep 5s at the bottom, release again, 4 times /min, conduct 2000 tests	
ESD Electrostatic	Body mode: 2KV, customizable 8KV	
LED Rated Current	≤24V, ≤20mA; >24V, ≤10mA	
LED Type	Chip nonpolar dual chip LED	
LED Resistance	Built-in resistance	
LED Life	≥50000h (Reference)	
Certificate	CCC CE RoHS REACH	
Patent No.	ZL201630425901.5, ZL201621035294.2	
Quality Assurance	66 Months	



LB22A LB25A LB28A LB30A LB40A

Model	Size	S	A	B	C	E	F	L	G	D	M	Contact
LB22A	S25	∅18	2.8	7	0.5	15	35	1.5	∅25	M22X1	1NO1NC/2NO2NC	
LB25A	S28	∅22	2.8	7	0.5	15	35	1.5	∅28	M25X1	1NO1NC/2NO2NC	
LB28A	S31	∅22	2.8	7	0.5	15	35	1.5	∅31	M28X1	1NO1NC/2NO2NC	
LB30A	S34	∅22	2.8	7	0.5	15	35	1.5	∅33	M30X1	1NO1NC/2NO2NC	
LB40A	S45	∅22	2.8	7	0.5	15	35	1.5	∅43	M40X1	1NO1NC/2NO2NC	


 wire is 150mm, 0.5 mm² GB, other lengths can be customized