



不锈钢头部



配套专用插件



银触点/镀银插脚



开孔16mm

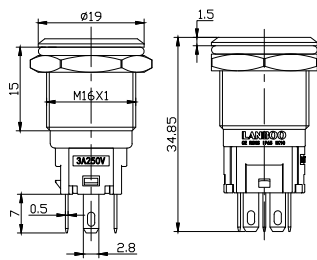
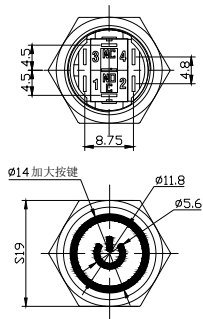
型号说明/选型，写法举例：LB16A2-G11Z/E+DYB9-24V/N(L)

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	16												
3	系列号	A2—常规经济型系列												
4	头部研状	P—平头、G—高头												
5	开关组合	11—1NO1NC 1常开1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												
9	LED 电压	9-24V、220V，定制：3-8V、25-48V、110V，AC/DC 通用												
10	外壳材质	N—铜镀镍，定制：S—不锈钢												
11	(L)	内部代码												

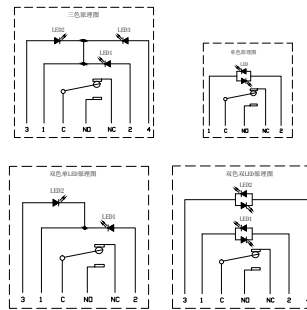
性能参数

开孔直径	对应孔径+0.2mm，例如：LB16A2为16.2mm
外壳	H57/59铜镀镍，可定制：304不锈钢(RoHS)
按键	304不锈钢(RoHS)
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	NBR，可定制：硅胶(RoHS)
触点	银氧化锡AgSnO2(RoHS)
底座	PA66(RoHS)，V0级阻燃
引脚	H65镀银(RoHS)
安装面板厚度	≤12mm

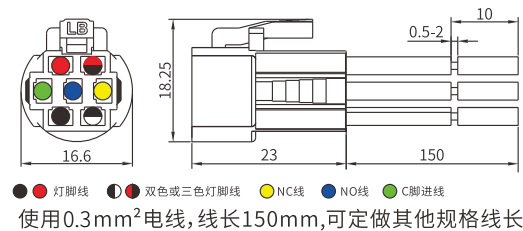
拧紧力矩	0.8-1.2N.m
螺纹验证	将螺母锁紧至垫圈明显变形, 然后拆下, 如此循环 5 次, 无异常
动作行程	总行程: 3.15±0.1mm, 接通过程: 1.8±0.2mm
按压力	5±0.5N
接线形式	引脚式, 可选配套接插件
耐焊性	≤380°C (25~50W 电烙铁), ≤2 秒
插片可焊性试验	各引脚分别焊接1mm ² 电线, 50N正向拉力后, 无脱落
与线束的配合试验	150mm线长, ≤50mΩ, LED灯通电无闪烁, 拉开力: 无灯20~35N, 带灯(5脚)25~45N (卡扣松开情况下)
引脚反向推力	≥50N 无位移, 1min
头部防脱顶牛	≥200N, 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	Ith: 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: 10万次, 自复: 20万次, (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	ZL201630425760.7、ZL201620677716.X
质保	66 个月



外形尺寸

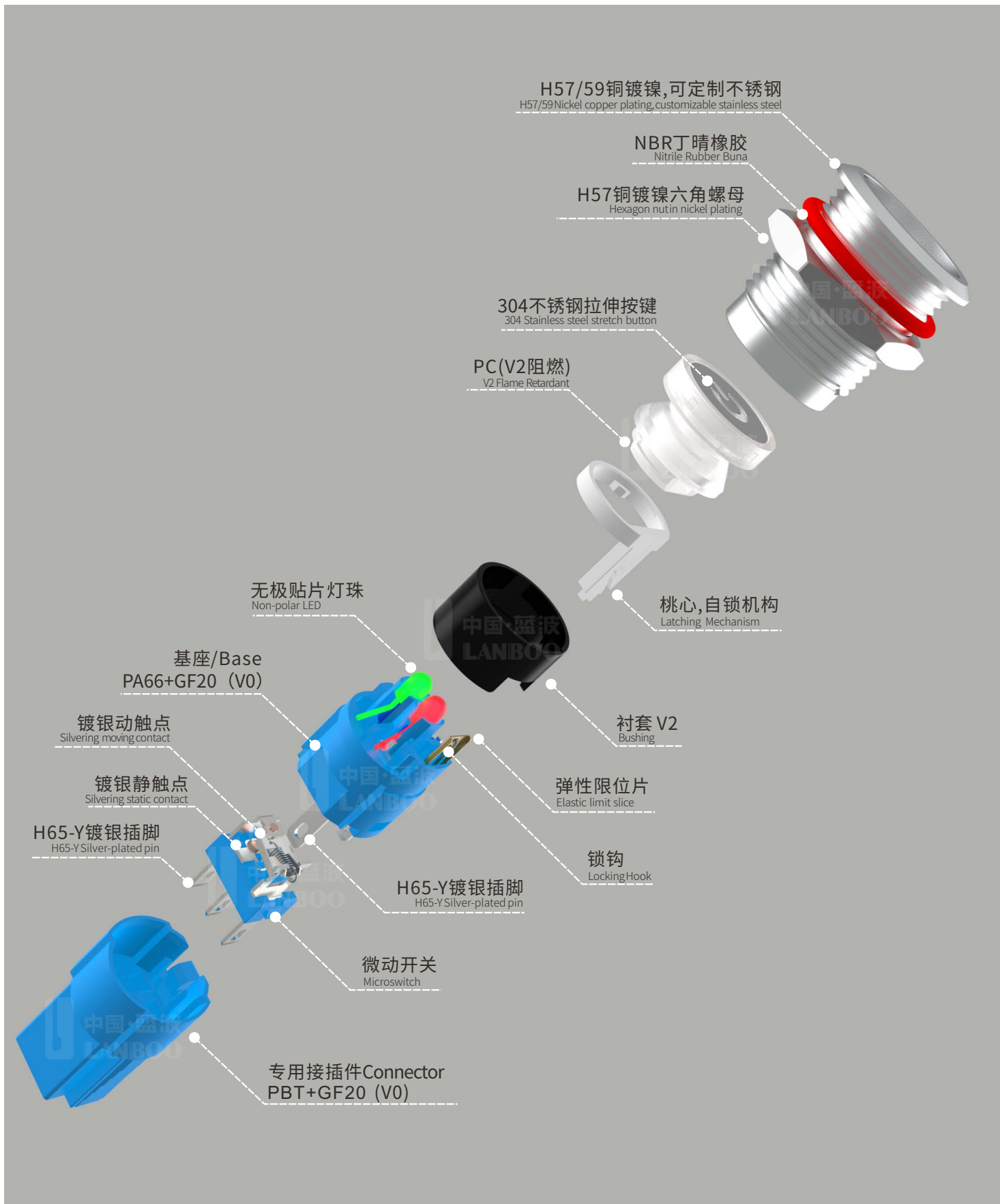


原理图



● 灯脚线 ● 双色或三色灯脚线 ● NC线 ● NO线 ● C脚进线
使用0.3mm²电线, 线长150mm, 可定做其他规格线长

接插件

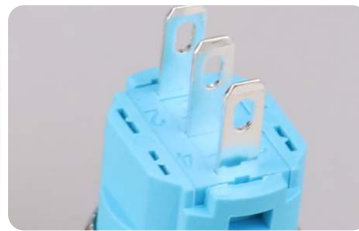




Stainless steel head



Connector



Silver pins/Contact



16mm

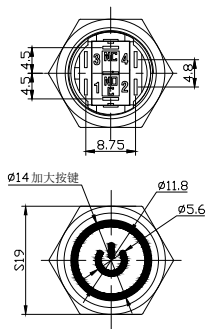
Model Description/Selection, Example:LB16A2-G11Z/E+DYB9-24V/N(L)

The Corresponding Number		LB	●●	●	—	●	●●	●	/	●	●	●●	/	●	L
		1	2	3		4	5	6		7	8	9		10	11
1	LB	LANBOO													
2	Install Diameter	16mm													
3	Series No.	A2 - Regular economy series													
4	Head Shape	P -flat head, G -tall head													
5	Switch Combination	1N01NC													
6	Action Form	Latching,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													
9	LED Voltage	9-24V, 220V, customized: 3-8V, 25-48V, 110V, AC/DC general purpose													
10	Shell Material	N - Copper nickel plating, custom made: S -Stainless steel													
11	(L)	Internal code													

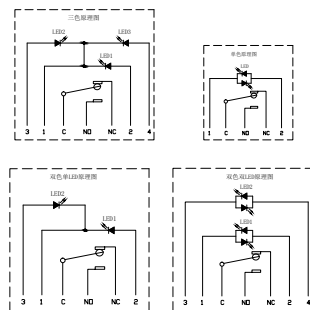
The performance parameters

Hole Diameter	Corresponding aperture +0.2mm, for example: LB16A2 is 16.2mm
Shell	H57/59 Nickel copper plating, customizable: 304 stainless steel (RoHS)
Key	304 Stainless steel (RoHS)
Pervious To Light Material	PC (RoHS), V2 flame retardant
Nut	H57/59 Nickel copper plating, customizable: 304 stainless steel (RoHS)
O-Ring	NBR, customizable: Silica gel (RoHS)
Contact Material	AgSnO2 silver oxide (RoHS)
Base Seat	PA66 (RoHS), Grade V0 flame retardant
Pins	H65 Silver Plating (RoHS)

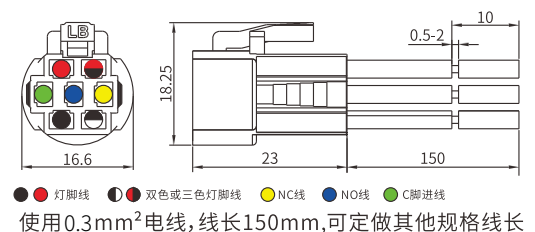
Mounting Panel Thickness	≤12mm
Nut Tightening torque	0.8-1.2N.m
Thread Verification	Lock the nut until the washer is visibly deformed, then remove the nut. Repeat 5 times no abnormalities
Action Stroke	Total stroke: 3.15±0.1mm, connecting stroke: 1.8±0.2mm
Operation Pressure	5±0.5N
Connection Mode	Pins, Special connector can be selected
Soldering Resistance	≤380°C (25~50W), ≤2 Seconds
Weldability Test For Inserts	Each pin is welded with 1mm ² wire, 50N forward tension without falling off
Pins Welding Strength	Wires length 150 mm, ≤ 50mΩ, Power on, LED flicker free, Pull force: Without LED 20 ~ 35N, With LED 25 ~ 45N
Pin Reverse Thrust	≥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	When the packing is in good condition -40°C~+55°C
Storage Ambient Humidity	When the packing is in good condition 45~90%RH
Protection Level	Ip65, Customizable IP67, IK10 (refer to 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
Mini. 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: 100,000 times, Momentary: 200,000 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	Patch nonpolar twin chip LED
LED Resistance	Built-in Resistance
LED Life	≥50000h (Reference)
Certificate	CCC CE RoHS REACH
Patent No.	ZL201630425760.7, ZL201620677716.X
Quality Assurance	66 Months



Outline Dimension



Schematic



Connector