

Toggle Switch

16NZ 钮子开关

Ith: 20A/250VAC

1N01NC



大手柄,方便操作,CD纹



可配专用插件



银触点,加粗银插脚



带灯指示

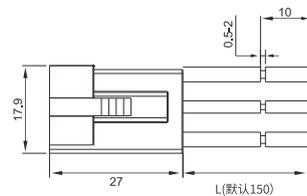
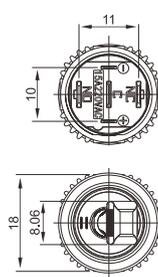
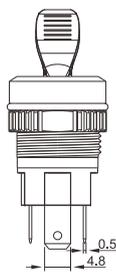
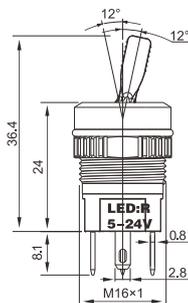
型号说明/选型, 写法举例: LB16NZ-P11Z/R5-24V/S/2(L)黑色手柄

对应编号	LB	●●	NZ	-	●	●●	Z	/	●	●	/	●●	/	●	●	L
	1	2	3		4	5	6		7	8		9		10	11	12
1	LB	LANBOO 蓝波代码														
2	安装孔径	16mm														
3	系列号	NZ—钮子开关系列														
4	头部研状	P—平头														
5	开关组合	11—1N01NC 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)														
7	发光颜色	R—红色、G—绿色,定制: B—蓝色、Y—黄色、W—白色														
8	LED 电压	5-24V, 220V, 定制: 3-8V、25-48V、110V, AC/DC 通用														
9	外壳材质	N—铜镀铬(默认银色手柄)、A—铝氧化(默认黑色手柄),可定制: ST—不锈钢镀钛、S—不锈钢(磨边)														
10	档位	2-2档														
11	(L)	内部代码														

性能参数

开孔直径	对应孔径+0.2mm,例如: LB16NZ为16.2mm
外壳	H59-3铜镀铬、6063铝氧化(黑色),定制: 304不锈钢(RoHS)
手柄	阻燃高温PA66+GF20/镀亮铬(阻镀),阻燃高温PA66+GF20/黑色哑光喷漆
面板	304不锈钢(CD纹)(RoHS),6063铝氧化(CD纹)黑色
透光材料	PC (RoHS), V2级阻燃

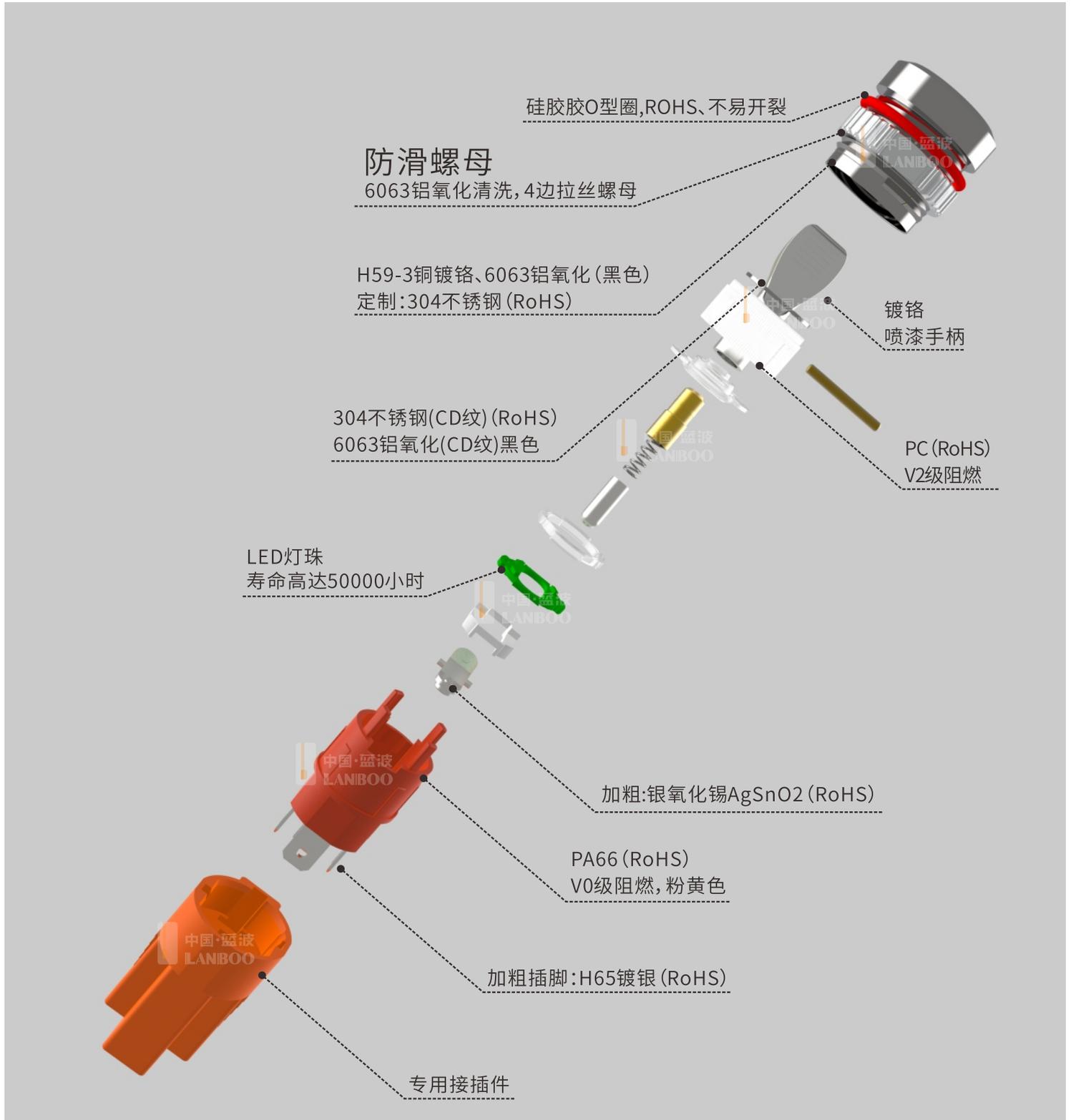
螺母	6063酸洗 (RoHS)
O型圈	硅胶 (RoHS)
触点	银氧化锡AgSnO2 (RoHS)
底座	PA66 (RoHS) , V0级阻燃, 粉黄色
引脚	H65镀银 (RoHS)
安装面板厚度	≤5mm
拧紧力矩	0.8-1.2N.m
螺纹验证	将螺母锁紧至垫圈明显变形, 然后拆下, 如此循环 5 次, 无异常
拨动角度	两边各12°
拨动力	6.3±0.8N
接线形式	引脚式, 可选配套接插件
耐焊性	≤380°C (25~50W电烙铁) ≤2秒
插片可焊性试验	各引脚分别焊接1mm ² 电线, 80N正向拉力后, 无脱落
与线束的配合试验	150mm线长, ≤50mΩ, LED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	≥80N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 (定制), 防撞IK10 (参考GB/T 20138)
约定发热电流	Ith: 20A, 250VAC
电阻性负载	AC-15: 110V/220V: 15A; DC-13: 12V/24V: 15A
电感性负载	AC-15: 110V/220V: 4A; DC-13: 12V/24V: 4A
接触电阻	≤50mΩ
绝缘电阻	≥1000MΩ
抗电强度 (工频耐压)	3000VAC, 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
耐冲击试验	各部位能承受冲击力10g, 能正常工作
温升	按GB/T14048.5标准中8.3.3.3条款要求进行
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/15A, DC24V/15A: 2万次; AC220V/8A, DC24V/8A: 4万次; AC220V/3A, DC24V/3A: 10万次 (参考GB/T14048.5)
机械寿命	50万次, (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
寿命	≥50000h (参考值)
产品认证	CCC CE RoHS (定制) REACH (定制)
专利号	ZL202030180950.3、ZL202030181406.0、ZL202020772243.8
质保	66个月



● 灯脚线 ● NC线 ● NO线 ● C脚进线
 ● 0.5mm², ● 1.5mm²,
 线长150mm, 可定做其他规格线长

外形尺寸

配套接插件



Toggle Switch

Ith:20A/250VAC

1N01NC



Easy to operate



Connector



Silver pins



LED

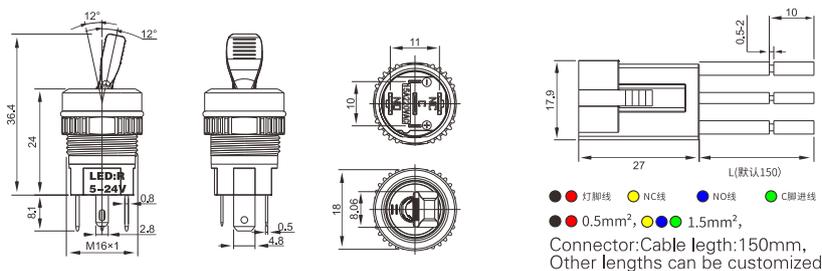
Model Description/Selection, Example:LB16NZ-P11Z/R5-24V/S/2(L)Black handle

The Corresponding Number	LB	●●	NZ	—	●	●●	Z	/	●	●	/	●●	/	●	●	L
	1	2	3		4	5	6		7	8		9		10	11	12
1	LB	LANBOO														
2	Install Diameter	16mm														
3	Series No.	NZ—Toggle Switch														
4	Head Shape	P - Flat Head														
5	Switch Combination	1N01NC														
6	Action Form	Latching														
7	LED Color	R -Red, G -Green,Custom: B -Blue,Y -Yellow, W -White														
8	LED Voltage	5-24V, 220V, Customized:3-8V、25-48V、110V, AC/DC General Purpose														
9	Shell Material	N-Copper chrome plating(Default silver handle)、A-Aluminum Oxidation(Default black handle), Customizable: ST-Stainless Steel Titanium Plating S-Stainless steel(No positioning edge)														
10	Gear	2-2 Gears														
11	(L)	Internal Code														

The performance parameters

Hole Diameter	Corresponding aperture +0.2mm, for example: LB16NZ is 16.2mm
Shell	H59-3 Copper chrome plating, 6063 Aluminum Oxide (Black), Custom: 304 Stainless steel (RoHS)
Handle	PA66+GF20/Bright chrome plating (Resistance coating) ,PA66+GF20/Black matte paint
Panel	304 Stainless steel(CD grain) (RoHS) ,6063 Aluminum Oxidation(CD grain)Black
Pervious To Light Material	PC (RoHS), V2 Flame Retardant

Nut	6063 Pickling (RoHS)
O-Ring	Silica gel (RoHS)
Contact Material	AgSnO2 silver oxide (RoHS)
Base Seat	PA66 (RoHS) , V0 grade flame retardant, pink yellow
Pins Material	H65 Silver (RoHS)
Mounting Panel Thickness	≤5mm
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
Toggle Angle	Each 12°
Slide Power	6.3±0.8N
Connection Mode	Pins,Special connector can be selected
Soldering Resistance	≤380°C(25~50W) ≤2 Seconds,
Pins Welding Strength	Each pin is welded with 1mm ² wire, 80N 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 25 ~ 45N (When the buckle is loosened)
Pin Reverse Thrust	≥80N, 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~+55°C
Storage Ambient Humidity	Packing in good condition, 45~90%RH
Protection Level	IP65,IK10(GB/T 20138)
Rated thermal current	Ith:20A,250VAC
Resistive Load	AC-15: 110V/220V:15A; DC-13: 12V/24V:15A
Inductive Load	AC-15: 110V/220V:4A; DC-13: 12V/24V:4A
Contact Resistance	≤50mΩ
Insulation Resistance	≥1000MΩ
Dielectric Strength	3000VAC, 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
Impact Test	Each part can withstand impact force 10g, Work normally
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	Impedance load:AC220V/15A. DC24V/15A:20,000 times;AC220V/8A. DC24V/8A:40,000 times;AC220V/3A. DC24V/3A:100,000 times (Reference GB/T14048.5)
Mechanical Life	500,000 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 Bead Type	Chip nonpolar dual chip LED
LED Resistance	Built-in Resistance
LED Life	≥50000h(Reference)
Certificate	CCC CE RoHS REACH
Patent No.	ZL202030180950.3、ZL202030181406.0、ZL202020772243.8
Quality Assurance	66 Months



Outline Dimension

Connector