



中国·蓝波
LANBOO

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

CCC CE RoHS Intertek ISO9001 多项专利

LB19/22M5.2 规格书

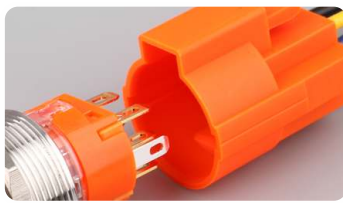
小头防水金属急停钮



原理图



小巧头部



专用接插件



精工数控



镀金插脚

型号说明/选型，写法举例：LB19M5.2-M11Z/R9-24V-/S/A(L)

对应编号	LB											
	1	2	3	—	4	5	6	/	7	8	/	L
1	LB	LANBOO 蓝波代码										
2	安装孔径	19、22mm										
3	系列号	M5—带定位高防水双开急停系列										
4	头部形状	M—蘑菇头										
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—保持式										
7	外壳材质	N—铜镀铬（M5.2默认材质）										
8	头部材质	A—铝氧化红色										
9	(L)	内部代码										

性能参数

开孔直径	对应孔径+0.2mm,例如：LB19M5.2为19.2mm
外壳	N—H57/59铜镀铬（M5.2默认材质）
头部	6063铝氧化红色（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	硅胶（RoHS）
触点	银氧化锡AgSnO2(RoHS)
底座	PC(RoHS),V2级阻燃
引脚	H65镀金/银（RoHS）



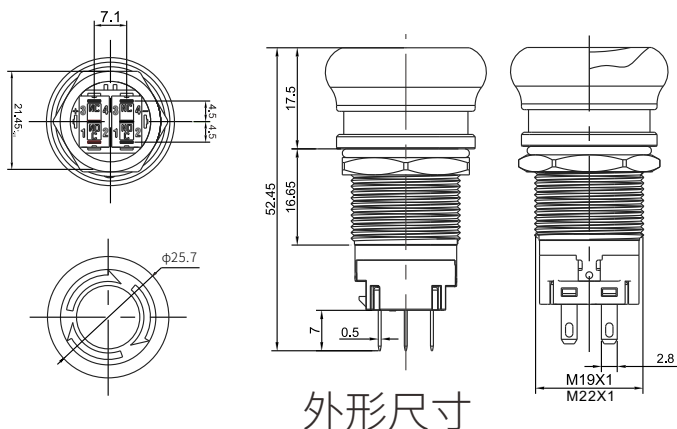
中国·蓝波
LANBOO

蓝波大电流开关
Pioneer of High-Current Switches
CCC CE RoHS intertek ISO9001 多项专利

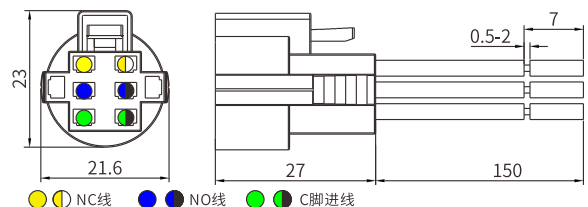
LB19/22M5.2 规格书

小头防水金属急停钮

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: 3.5±0.2mm,接通过程: 1.8±0.2mm	
旋转角度	顺时针45°	
按压力	8±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, 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 (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,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)	2500VAC,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	25万次 (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	ZL201930471059.2	
质保	66 个月	



外形尺寸



线长150mm, 0.5mm²国标铜芯线, 可定做其他长度

接插件



中国·蓝波
LANBOO

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

CCC CE RoHS ENEC Intertek ISO9001 多项专利

LB19/22M5.2 规格书

小头防水金属急停按钮

头部:铝氧化红色
Head:red in aluminum oxide

头部固定座,PC(V2阻燃)
Head fixing seat, V2 Flame Retardant

H57/59铜镀铬,可定制不锈钢
H57/59Copper Chrome plating,can be customized stainless steel

H57铜镀镍六角螺母
Hexagon nut in nickel plating

高强度不锈钢弹簧
High strength stainless steel spring

硅胶密封圈
Silicone seal ring

PC 卡扣
Snap joint

PC上衬套(V2阻燃)
bushing/V2 Flame Retardant

桃心,自锁机构
Latching Mechanism

硅胶密封圈
Silicone seal ring

PC下衬套(V2阻燃)
bushing/V2 Flame Retardant

触点:银氧化锡
AgSnO₂(RoHS)
Contact:Silver tin oxide

H65镀金插脚
H65 Gold-plated pin

底座:PC(RoHS),V2 级阻燃
Base:PC V2 Flame Retardant

微动开关
1NO1NC或2NO2NC
Microswitch,1NO1NCOR2NO2NC

专用接插件Connector
PBT+GF20 (V0)



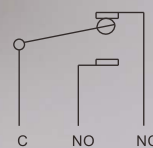
中国·蓝波
LANBOO

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

CCC CE ENEC Intertek ISO9001 多项专利

LB19/22M5.2 Specification

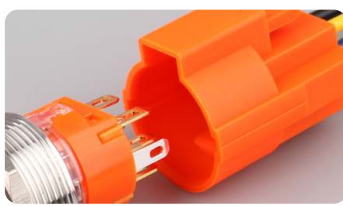
Metal Emergency Stop Switch



原理图



Small head



Connector



Seikonc



Gold plated pins

Model Description/Selection, Example: LB19M5.2-M11Z/R9-24V-/S/A(L)

The Corresponding Number		LB	●●	●	—	●	●●	●	/	●	●●	/	L
		1	2	3		4	5	6		7	8		9
1	LB	LANBOO											
2	Install Diameter	19、22mm											
3	Series No.	M5 -Double start and stop series with positioning, high water resistance											
4	Head Shape	Mushroom Head											
5	Switch Combination	1NO1NC,2NO2NC											
6	Action Form	Retentive											
7	Shell Material	N-copper-Chrome (M5.2 default material)											
8	Head Material	Aluminium oxide Red											
9	(L)	Internal code											

The performance parameters

Hole Diameter	Corresponding aperture +0.2mm, for example: LB19m5.1 is 19.2mm
Shell	N-H57/59 Copper chrome plating (M5.2 default material)
Head	Aluminium oxide Red (RoHS)
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	PC (RoHS), V2 flame retardant
Pins Material	H65 Gold plated/Silver (RoHS)



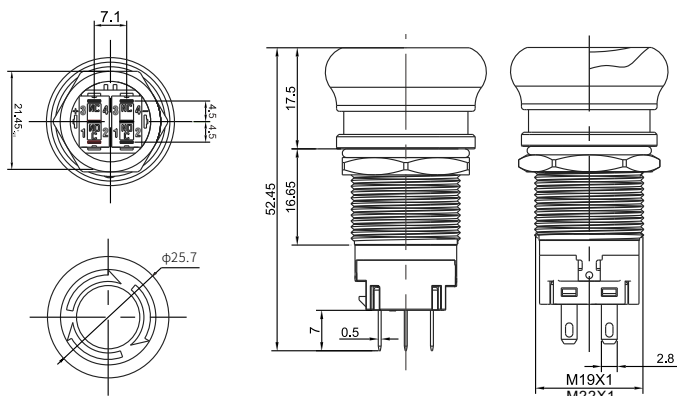
中国·蓝波
LANBOO

蓝波大电流开关
Pioneer of High-Current Switches
CCC CE RoHS REACH ISO9001 多项专利

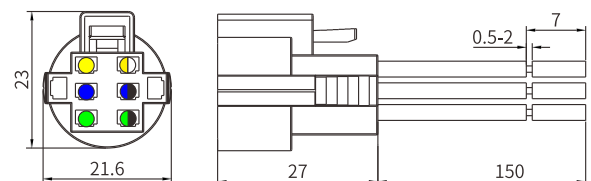
LB19/22M5.2 Specification

Metal Emergency Stop Switch

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: 3.5 ± 0.2 mm, connected stroke: 1.8 ± 0.2 mm	
Rotation Angle	Clockwise 45°	
Operation Pressure	8 ± 0.8 N	
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, 50N forward tension without falling off	
Matching test with wiring harness	Wires length 150 mm, ≤50mΩ Power on, LED flicker free, Pull force: Without LED (3 Pins) 20~35N, With LED (8 Pins) 40~65N (When the buckle is loosened)	
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	Packing in good condition, -40°C~+55°C	
Storage Ambient Humidity	Packing in good condition, 45~90%RH	
Protection Level	IP65,IK10(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	2500VAC,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	250,000 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 UL CE RoHS REACH	
Patent No.	ZL201930471059.2	
Quality Assurance	66 Months	



Outline Dimension



● NC ● NO ● C

Connector: Cable length:150mm,0.5mm², Other lengths can be customized

Connector