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|  | 产品型号<br>Product No.  | 141027B-JL-S4R                                    | 版 本<br>Version | A0.3 |

# 141027B-JL-S4R 插座连接器

## 技术规格书

### 141027B-JL-S4R Receptacle connector


### Technical specification

Edited by/Date Wei Qin 2019. 8. 9

Audited by/Date Xiaogang Yi 2019. 8. 9

Approved by/Date Jianhong Zhou 2019. 8. 9

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## 1 连接器型号及明细 Connector models and details

1.1 产品名称(Product name): 141027B-JL-S4R 插座(Receptacle)

1.2 连接器明细 Connector Details

| 产品名称<br>Product name              | 产品型号<br>Product model | 产品编号<br>No. | 备注<br>Remark |
|-----------------------------------|-----------------------|-------------|--------------|
| 141027B-JL-S4R 插座<br>(Receptacle) | 141027B-JL-S4R        | /           |              |

## 2 技术参数 Technical parameter

2.1 电气参数 Electrical parameter

- 额定电压 (Rated voltage): 600V AC
- 额定电流 (Rated current): 40A (Suitable for 8AWG/10mm<sup>2</sup> wire)
- 接触电阻 (Contact resistance):  $\leq 1\text{m}\Omega$
- 绝缘电阻 (Insulation resistance):  $\geq 3000\text{M}\Omega$  (Normality)
- 耐 压 (Withstand voltage): 3000V AC (Sea level)


2.2 机械参数 Mechanical parameter

- 机械寿命 (Mechanical life):  $\geq 100$  times
- 插拔力 (Insertion and extraction force): 插入力 (Insertion force)  $\leq 54\text{N}$ , 拔出力 (Pullout force)  $12\text{N} \sim 54\text{N}$ .
- 压板保持力 (Pressure plate holding force):  $\geq 400\text{N}$
- 单孔分离力 (Single-hole separation force):  $3.0\text{N} \sim 9.0\text{N}$
- 接触件固定性 (Fixation of contact parts): 轴向载荷 82N, 保持 30s, 接触件相对于外壳的轴向位移应不超过 1mm (The axial load is 82N, and the axial displacement of the contact with the shell should not exceed 1mm)

2.3 环境特性 Environment Features

- 连接器工作温度 (Connector operating temperature):  $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- 储存温度 (Storage temperature):  $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$
- 相对湿度 (Relative humidity):  $90\% \sim 95\% \text{RH}$
- 盐雾等级 (Salt spray level): 中性盐雾 (Neutral salt spray) 48H (仅考核接触件 Only)

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contact parts are assessed)

■ 振动(Vibration): 产品经频率(Product frequency)10Hz~500Hz, 加速度98m/s<sup>2</sup>振动试验后外观无损坏(Acceleration 98m/s<sup>2</sup> vibration test after the appearance of no damage), 不松动、移位, 插拔无异常; 无超过1us的电中气断(No loosening, displacement, no abnormal insertion and removal; No power outage exceeding 1us)

■ 冲击(strike): 产品经加速度294m/s<sup>2</sup>冲击试验后外观无损坏, 不松动、移位, 插拔无异常; 无超过1us的电气中断(After the 294m/s<sup>2</sup> impact test, the appearance of the product is not damaged, loose, shifted, and inserted and removed without abnormal; No electrical interruption exceeding 1us)

#### 2.4 材料及表面处理等 Materials and surface treatment, etc

■ 绝缘主体(Insulating body): PBT 黑色(Black); 阻燃等级(Flame retardant rating): UL94-V0

■ 后套(Back sleeve): 高导铜, 表面处理(High conductivity copper, surface treatment): 镍底镀银(Silver plating on nickel base)

■  $\phi 3$  冠簧(Crown spring): 铍铜, 表面处理(Beryllium copper, surface treatment): 镍底镀银, 浸 823 保护剂(Silver nickel base, impregnated with 823 protectant)

■ 定位爪(Locating pawl): 磷铜, 表面处理(Phosphor copper, surface treatment): 镍底镀锡(Nickel base tinned)


### 3. 环保要求 Environmental protection requirement

产品所使用的物料及制造过程, 均符合 RoHS 的相关要求(The materials and manufacturing processes used in the products meet the relevant requirements of RoHS)

### 4. 特殊要求 Special requirements

当将接触件(插孔)安装放入插座壳体相应孔内时, 必须将接触件顶到位, 确保被定位爪卡住定位(轴向反向顶不出接触件)(When installing the contact (jack) into the corresponding hole of the socket housing, the contact must be pushed in place to ensure that the positioning claw is stuck in position (the contact cannot be pushed out in

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the axial reverse).)

## 5. 连接器使用注意事项及要求: Connector use precautions and requirements

5.1、连接器禁止带电插拔(Connectors are prohibited from plugging or unplugging when powered);

5.2、机柜结构尺寸应满足插合后插头和插座的界面间隙小于 2.0mm(The gap between the plug and the receptacle should be less than 2.0mm);

5.3、连接器的插头和插座之间，允许的插合极限导向偏差为 1.8mm，要求设备导轨的导向偏差应低于 1.8mm(Between the plug and receptacle of the connector, the allowable mating limit guide deviation is 1.8mm, and the guide deviation of the equipment guide rail is required to be less than 1.8mm);

5.4、连接器插座插孔压线后尾端需出来一段 40mm 长的直线后才进行弯曲线缆，以免插合时针孔不对中插合，造成插孔损坏失效(After crimping the connector receptacle socket, a 40mm long straight line must come out from the end before bending the cable to avoid misalignment of the pinhole during insertion, causing damage to the socket.);


5.5、连接器需保证导向对准后方可插合，以免未对准强行插入时造成连接器严重损坏(The connector must be aligned with the guide before insertion to avoid serious damage to the connector when forced insertion without alignment.);

5.6、连接器插座为浮动安装，安装螺钉锁紧后需保证插座可正常浮动，以免插座被安装螺钉锁死，从而造成连接器头座不能自动导向对准插合(The connector socket is a floating installation. After the installation screws are tightened, it is necessary to ensure that the socket can float normally to prevent the socket from being locked by the installation screws, causing the connector head base to be unable to automatically guide, align, and engage.);

5.7、连接器在插合使用过程中不允许承受除自身接触力以外的其他作用力(The connector is not allowed to withstand other forces other than its own contact force during the mating process.);

5.8、从模块进入导轨一直到模块完全插合完成，建议整个过程控制在(3~5)S 之间(From the

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time the module enters the guide rail until the module is fully inserted, it is recommended that the entire process be controlled between (3 to 5) seconds.);

5.9、插孔压接线或焊线后，尾部需套热缩套管，以免造成尾部短路打火现象，且热缩套管距离插孔最大外圆端面需有 $(2\pm 1)$  mm，以免定位爪卡不住插孔(After the socket is crimped or soldered, the tail must be covered with a heat-shrinkable sleeve to avoid short-circuiting and ignition at the tail. The heat-shrinkable sleeve must be  $(2\pm 1)$  mm away from the maximum outer circumferential end face of the socket to prevent the positioning claw from being unable to stuck jack);

5.10、当将接触件（插孔）安放入壳体相应孔内时，必须将接触件插入到位并往回轻轻拉扯，确保被定位爪卡住定位（轴向反向顶不出接触件）(When placing the contact (socket) into the corresponding hole of the housing, the contact must be inserted in place and gently pulled back to ensure that the positioning claw is stuck (the contact cannot be pushed out in the axial reverse));

5.11、建议安装插座的机柜面板厚度为 1.5mm 以上，以免多次插拔后面板变形，造成连接器插合不到位(It is recommended that the thickness of the cabinet panel should be at least 1.5mm. Otherwise, the panel may be deformed after repeated insertion or removal);


5.12、PCB 板浸三防漆时，禁止三防漆流到插合界面内的接触件表面(When the PCB board is immersed in three anti-paint, do not allow the three anti-paint to flow to the surface of the contact in the plug-in interface)。

## 6. 包装储存 Package storage:

包装箱上注明有产品型号，数量，日期，检验印章等(The packing case is marked with product model, quantity, date, inspection stamp and so on)。

包装成箱或成盒的产品，应在环境温度为 $-10^{\circ}\text{C}\sim+40^{\circ}\text{C}$ ，相对湿度在 80%以下，周围空气中无酸性，碱性或其它腐蚀性气体的库房里储存，在上述条件下，储存期自生产日期不超过两年(Products packed in boxes or boxes should be stored in a warehouse with an ambient temperature of  $-10^{\circ}\text{C}\sim+40^{\circ}\text{C}$ , relative humidity below 80%, and no acid,

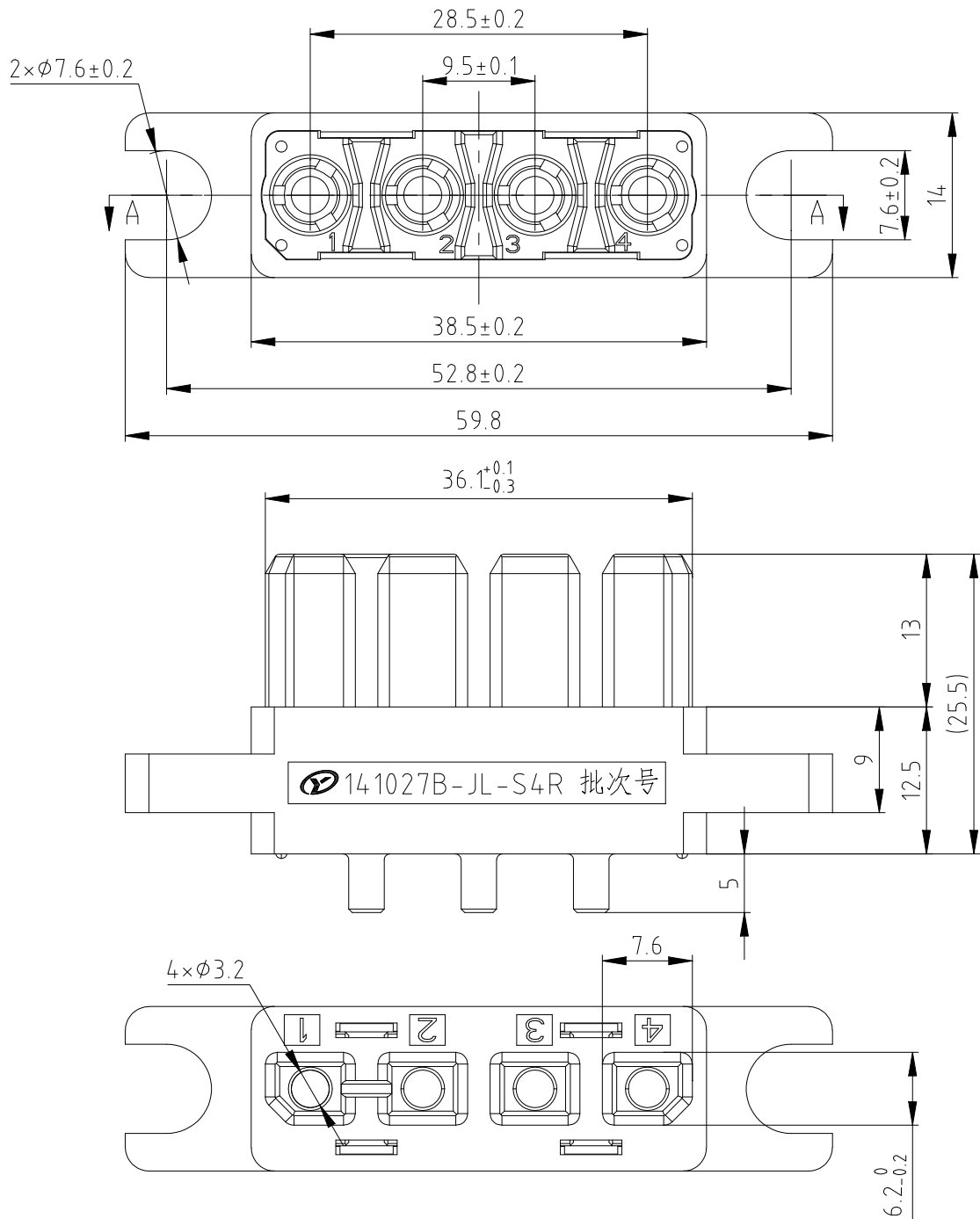
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alkaline or other corrosive gases in the surrounding air, under the above conditions, the storage period from the production date is not more than two years).

7. 外形尺寸 Overall dimension (未注公差按 X (If the tolerance is not noted, press X):

$\pm 0.5$ , X.X:  $\pm 0.35$ , X.XX:  $\pm 0.25$ ; Unit: mm):



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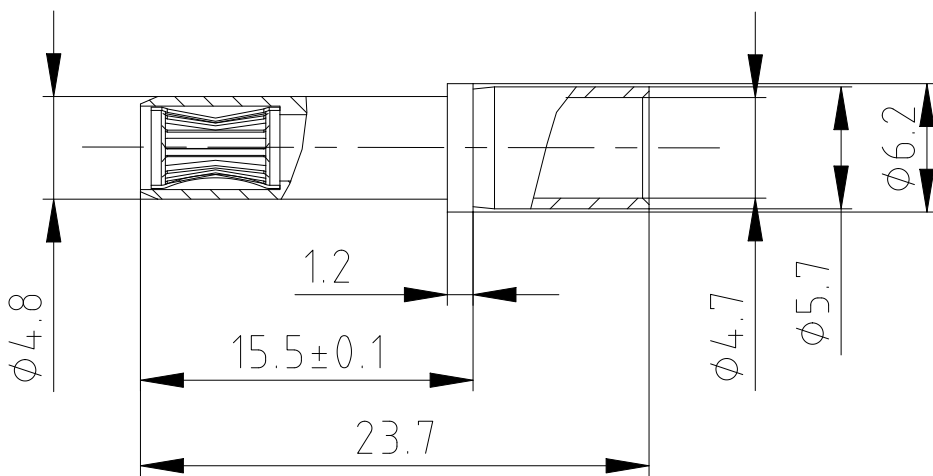
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配套使用插孔( $\phi 3.0$ , 配套使用数量: 4PCS):

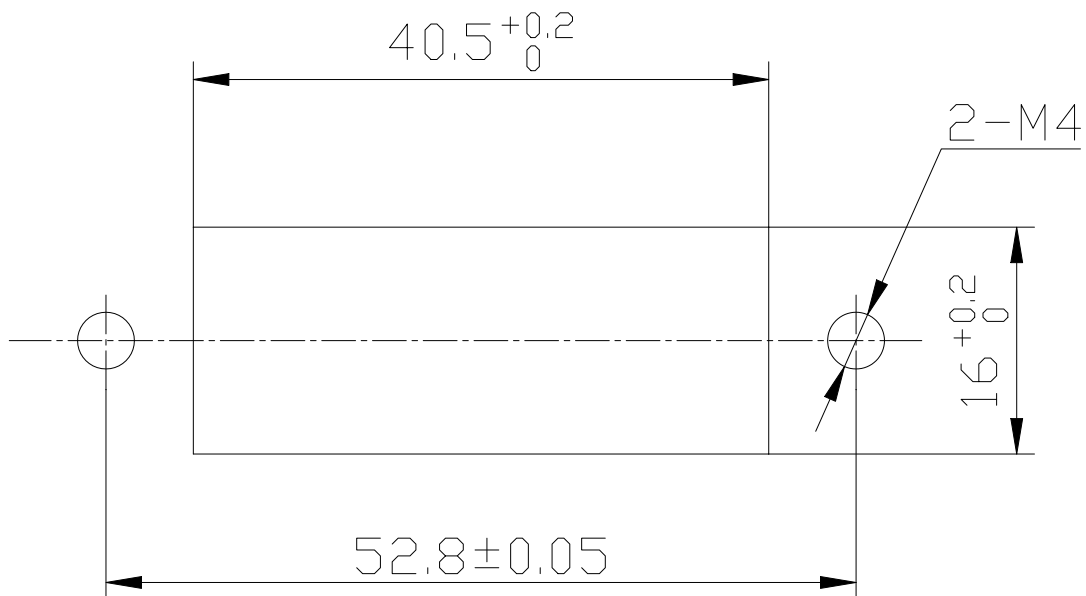
141027B- $\phi 3$  插孔组件- $6\text{mm}^2$ -银 (114021002249) (未注公差按 $\pm 0.2$ , 单位: mm)

Matching jack( $\phi 3.0$ , matching number: 4PCS):

141027B- $\phi 3$  socket Assembly - $6\text{mm}^2$ - Silver (114021002249) (Tolerances not noted are  $\pm 0.2$ , unit: mm)



推荐面板开孔尺寸 Recommended panel opening size



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