

二芯过孔连接器组装说明

The Assembly manual  
For HV flange 2POS Plug Connector



HV3228(X)-50

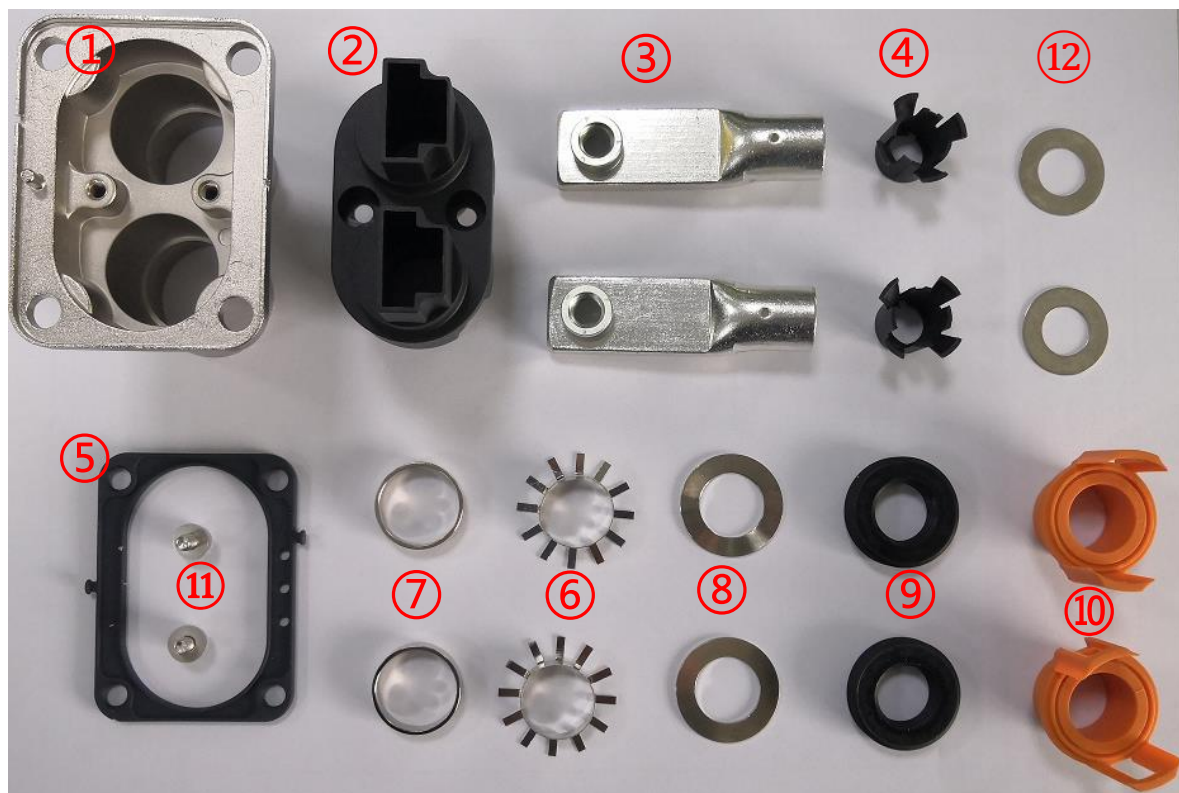
键位  
X 键  
Y 键  
Z 键

Key  
X  
Y  
Z

线缆大小  
  
Cable Size  
mm2

## 第一部分：包装清单

### Part 1 : Package contents



- ① 金属外壳 Metal Shell For HV Flange ×1
- ② 胶壳 Plastic housing ×1
- ③ 端子组件 Terminal Assy ×2
- ④ 防倒退卡圈 Cushion Ring ×2
- ⑤ 密封垫 Flat seal ×1
- ⑥ 内屏蔽环 Inner Shield Shrapnel ×2
- ⑦ 屏蔽铜套 Shield Ring ×2
- ⑧ 大金属垫片 Big Shielding Gasket ×2
- ⑨ 密封圈 Seal ×2
- ⑩ 尾盖 End cap ×2
- ⑪ 螺丝 Screw ×2
- ⑫ 小金属垫片 Small Shielding Gasket ×2

## 第二部分：插头组装

### Part 2: Plug Assembly

#### 安装步骤 Assembly Instruction

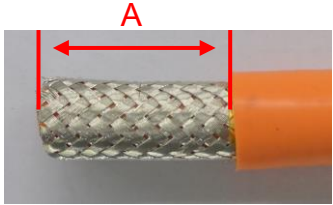
步骤1：选取合适线缆，按照表1尺寸剥外被，线材用量为2根。

Step1：Select the right cable, prepare the cable according to the sketch and Table1 below , The amount of cable is two.

表1：剥皮尺寸

Table 1: Strip length

线材尺寸 Cable Size	电线外径(mm) Wire OD	导体结构(mm) Conductor	外被 Jacket A (mm)	线材型号 Cable PN
50mm <sup>2</sup>	15.5+/-0.3	1656*0.21 Max	30.5+/-0.5	LEONI 76H00189B

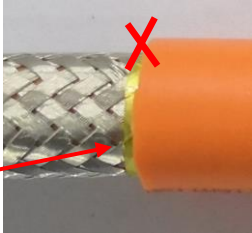


步骤2：取各1pcs ⑩ 尾盖, ⑨密封圈⑧大金属垫片, 依次穿过线缆如下图所示

Step2：Take 1pcs ⑩ end cap, ⑨ seal ⑧ big shielding gasket , and pass through the cable successively, as shown in the figure below

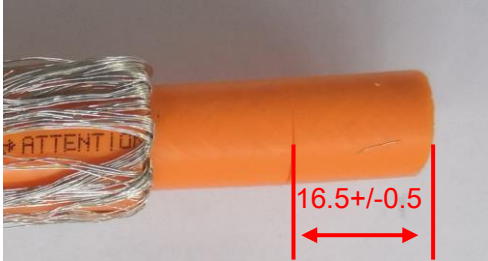
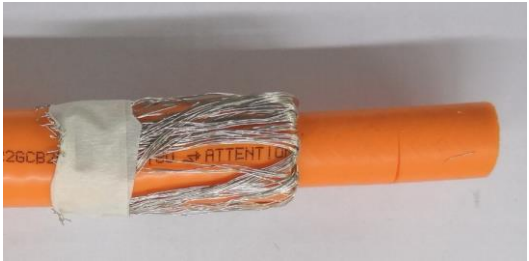


注意外被不可后退  
Note that the outer jacket can not be retreated



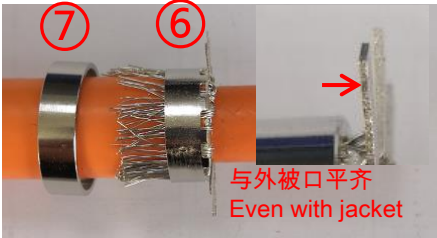
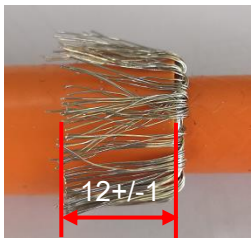
步骤3：将编织均匀打散反折固定在外被上，再如图示剥芯线，

Step3：Break the braiding evenly then reverse and fix it on the outer jacket, and strip insulation as shown in the figure.



步骤4：将编织修剪长度为 12mm，再如图示先后穿入⑦屏蔽铜套⑥内屏蔽环，内屏蔽环翅片内侧与外被口平齐，将编织均匀反折在内屏蔽环上，再将屏蔽铜套前移盖住内屏蔽环，使两环后端平齐，注意内屏蔽环不可移位。

Step4：Trim the braiding length to 12mm, Take 1pcs ⑦ Shield Ring ⑥ Inner Shield Shrapnel , and pass through the cable successively as shown in the figure below , the inner side of the inner shield shrapnel fin is even with the outer jacket, and folded back the braid evenly on the inner shield shrapnel, then move the shielding ring to cover the inner shield shrapnel, so that the two rings are even at the back end, Notice that the inner shrapnel cannot be moved in the process.



与外被口平齐  
Even with jacket



与外被口平齐  
Even with jacket

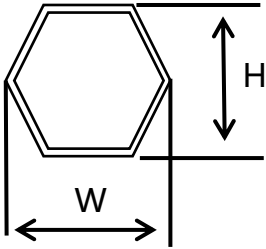
步骤5：将屏蔽铜套压紧在内屏蔽环上，压接刀模与压接高度、拉力要求等参照表2，压接过程避免内外铜环移位。

Step 5: Crimp the shield ring on the Inner Shield Shrapnel , Crimp die and crimp height and pull force refer to Table 2 . To avoid the inner and outer ring slide in the crimp process.

表2：铜环与线缆屏蔽编织层压接规格&拉拔力要求

Table2：Copper Ring and Cable braids Crimping spec & retention force requirement

压接模具 Crimp die	压接高度 Crimping height (mm)	参考抗拉拔力 Retention Force
BZW-6C Mold free	18.5±0.1	150N



步骤6：先在线端穿入小金属垫片⑫，再将④防倒退卡圈紧贴内绝缘装入，再取1pcs的 ③ 端子组件自左端穿上线缆，并压接在其上（规格参照表3）

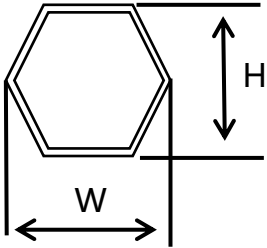
Step 6: First thread a small metal gasket ⑫ from the wire end , Put ④ cushion Ring onto the end of the inner insulation, then take a ③ terminal Assy, load it to the end of the cushion Ring from the left, then crimp (refer to table 3)



表3：端子与线缆压接压接规格&拉拔力要求

Table 3：Contact and Conductor Crimping spec & retention force requirement

压接模具 Crimp die	压接高度 Crimping height (mm)	参考抗拉拔力 Retention Force
BZW-6C Mold free	13.2±0.2	2800N



(1) 建议使用安费诺指定线材（型号详见表1），如果客户选用其它电缆，请联系安费诺业务，协商订制零配件

Recommend to use assigned cable.（ See table 1 for details.） If you need to use customized cable, Please contact local sales for product extentions

(2) 压接高度和拉拔力需要配合压接截面的金相分析，客户才能判断压接质量合格, 芯线压缩比要求为 80~90%。

Customers need to reconfirm cross section on crimping area and pull out force test to confirm the quality of crimp process, Terminal crimping must meet the compression ratio of conductor requirements: 80~90%.

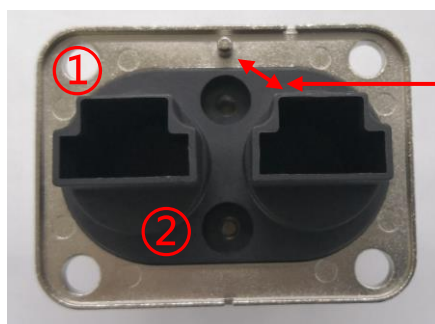
(3) 横截面仅供参考（其他举例：带点等边六变形的横截形状），客户负责采购压接工具或刀模

Cross section only reference tooling geometry (ex. hex and indent dimensions ),customer will take liability for sourcing tools or dies



步骤7：将②胶壳按图示方向插入 ①金属外壳，

Step 7: Insert ② the plastic housing into ① the metal shell for HV flange in the direction as shown,



金属外壳上凸柱与胶壳凸面对应  
The convex column on the metal shell corresponds to the convex surface of the plastic housing

步骤8：将线束上端子螺母朝上如图示插入铁壳，直到听到“咔”响表示端子已装到位，后拉端子应不松脱。

Step 8: Insert the wire harness into the shell for HV flange with nut face to upsides as shown in photo, The terminal is in place when a "click" sound is heard, Pull back the terminal and it should not exit.



内屏蔽环卡爪  
需均匀推入  
The gripper of the inner shield ring should be pushed evenly



取出胶壳应可见防倒退卡圈刚好卡在外壳台阶上  
When taking out the plastic housing, it should be visible that the claw of the cushion ring is just stuck on the step of the metal shell

注意：装入端子后建议100%检查防倒退卡圈是否已装到位，如没有装到位，轻摇线材使卡圈装到位。

Notice: After loading the terminal, it is recommended to check 100% whether the anti-retrograde clamping ring is installed in place. If not, shake the wire to make the clamping ring installed in place.

- 步骤9：调整扭力批扭力为 1.6~2.4N.m，如图示用⑪螺钉将胶壳锁紧在金属壳上,再盖上⑤密封垫。
- Step 9: Adjust the torque force to be 1.6~2.4N.m. Lock the plastic housing on the metal shell with screws as shown in the figure，Then cover ⑤ the flat seal.



- 步骤10：将接头另一PIN也同样装入压好端子的线束，并将金属垫片与密封圈推到底，再将尾盖卡入完成安装。
- Step 10: Insert another wire harness into another pin as the same, and push shielding gaskets and seals into the bottom, then push the end cover to its place as shown in photo.



两边卡扣开口  
无区分  
The opening  
of the two  
sides of the  
buckle is not  
distinguished

- 步骤11：在线缆组装好后需要做绝缘电阻和耐压测试，建议客户参考下面的测试参数。
- Step 11: Need to do the Insulation Resistance and DWV test after cable assembled. It is recommended that the customer refer to the following test parameters.

11-1 绝缘电阻测试

11-1 Insulation Resistance

Positions 位置	Test voltage/time 测试电压/时间	测试时间（推荐） Test Time ( recommended)	Insulation resistance 绝缘电阻
All Pin to shell 所有端子到壳体	1000 VDC	5S	> 500 MΩ
Pin to Pin 端子到端子	1000 VDC	5S	> 500 MΩ

11-2 Dielectric Withstand Voltage

11-2 耐压测试

Positions 位置	Test voltage 测试电压	测试时间（推荐） Test Time ( recommended)	Leakage Current 漏电流
Pin to Pin 端子到端子	5000 VDC	10S	< 5mA
All Pin to shell 所有端子到壳体	5000 VDC	10S	< 5mA

11-3 测试说明:

警告:建议的电气测试及其参数应根据终端应用要求进行审查，以确保安全性并防止损坏其他部件。提供的参数是基于连接器峰值1000VDC额定。提供的测试参数可能超出电缆组件或设备上使用的其他部件/材料的限制。

11-3 Test note:

caution: Recommended electrical tests and their parameters should be reviewed against end application requirements to ensure safety and to prevent damage to other components. Parameters provided are based on the connector and its peak 1000VDC rating. Test parameters provided may exceed the limit of other components/materials used on the cable assembly or device.

版本记录 Revision history

序号 Number	版本 Rev	变更内容 Content of change	日期 Date
1	00	新出 New issue	2021/01/20
2	01	屏蔽环结构更改，组装说明相应更新 Shield ring structure changed, assembly manual updated accordingly	2021/11/08
3	02	增加小金属垫圈 Add small metal gasket	2021/12/30

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