



浙江珠城科技股份有限公司

ZHEJIANG ZUCH TECHNOLOGY CO., LTD

产品系列

VHE 系列

文件名称
Document name

产品应用规格书
Product Application Specification

页码 page

1-6

1. 简介 Interduction

本应用规格书介绍了我司 VHE 系列的单排线对线产品及单排线对板产品的产品型号、产品安装基准、端子的适用导线和压接指导。

This specification covers the requirements for application of VHE series single row wire-to-wire and wire-to-board interconnections, include part No., product installation basis, applicable conductor and crimping instructions for terminals.

2. 产品描述 Product Description

按本公司一般产品叫法命名：

全套连接器的插入端称之为公端或插头，被插入端称之为母端或者针座，公端的主体塑件称之为孔座，公端内的端子称之为簧端子，母端的主体塑件称之为母座，母端内的端子称之为针端子，两端的防脱插销称之为锁片（两端锁片不一样时，公端对应的锁片称之为公锁片，母端对应的锁片称之为母锁片）。按此名称对应产品型号如下：

Product Naming:

Male side means the inserting side of the connector or plug; female side means the inserted side or header side. Major housing of the male side is named plug housing, and the mating terminal is named socket terminal. Major housing of the female side is named receptacle housing, and the mating terminal is named pin terminal, and the terminal position assurance for both housings are named retainer. (If the retainers for both side housing are different, the one for plug housing is named male retainer, and the other one for receptacle housing is named female retainer.)

连接器名称	部件名称 Part Name	产品型号 Part No.	材质 Material	备注 Notes
公头 Plug	公塑壳（有槽型） Plug housing	HP3960E-nY/****	PA66	UL94V-0
	簧端子 Socket terminal	TP3960E-****	高导铜 Copper alloy	镀锡 Tin-plated
	锁片 Retainer	HC3960E-nS/****	PA66	UL94V-0
	公塑壳（无槽型） Plug housing	HP3964E-nY/****	PA66	UL94V-0
	锁片 Retainer	HC3964E-nS/****	PA66	UL94V-0
针座 Header	针座(防呆型) Header without a boss	HW3960E-D-nA /****	PA66 黄铜/Brass	镀锡 Tin-plated
	针座 Header without a boss	HW3960E-nA /****	PA66 黄铜/Brass	镀锡 Tin-plated



浙江珠城科技股份有限公司

ZHEJIANG ZUCH TECHNOLOGY CO., LTD

产品系列

VHE 系列

文件名称
Document name

产品应用规格书
Product Application Specification

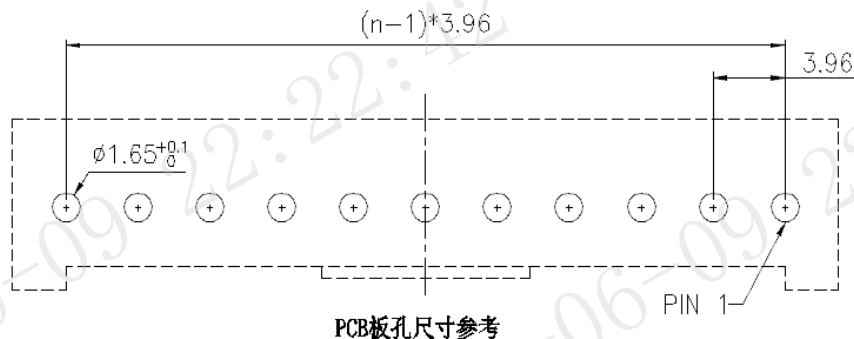
页码 page

2-6

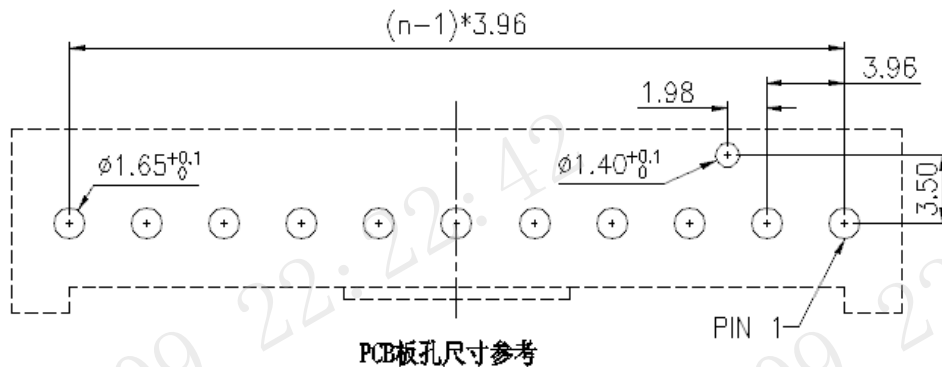
3. 端子适用导线 Applicable conductor of terminal

规格型号 part No.	制造码 Manufacturing code	材质和镀层	导线规格 Wire	导体截面面积 Cross-sectional area	线皮直径 Insulation diameter
TP3903E-3(A)	TP3960E-1301	高导电/镀锡	AWG22	0.3 ²	Φ1.5~2.2
TP3903E-3(B)	TP3960E-1302	高导电/镀锡	AWG20-18	0.5 ² ~0.75 ²	Φ1.9~2.7
TP3903E-3(C)	TP3960E-1303	高导电/镀锡	AWG18-16	0.75 ² ~1.25 ²	Φ2.3~2.7

4. 针座安装基准 Installation reference of header 普通型



防呆柱型





浙江珠城科技股份有限公司

ZHEJIANG ZUCH TECHNOLOGY CO., LTD

产品系列

VHE 系列

文件名称
Document name

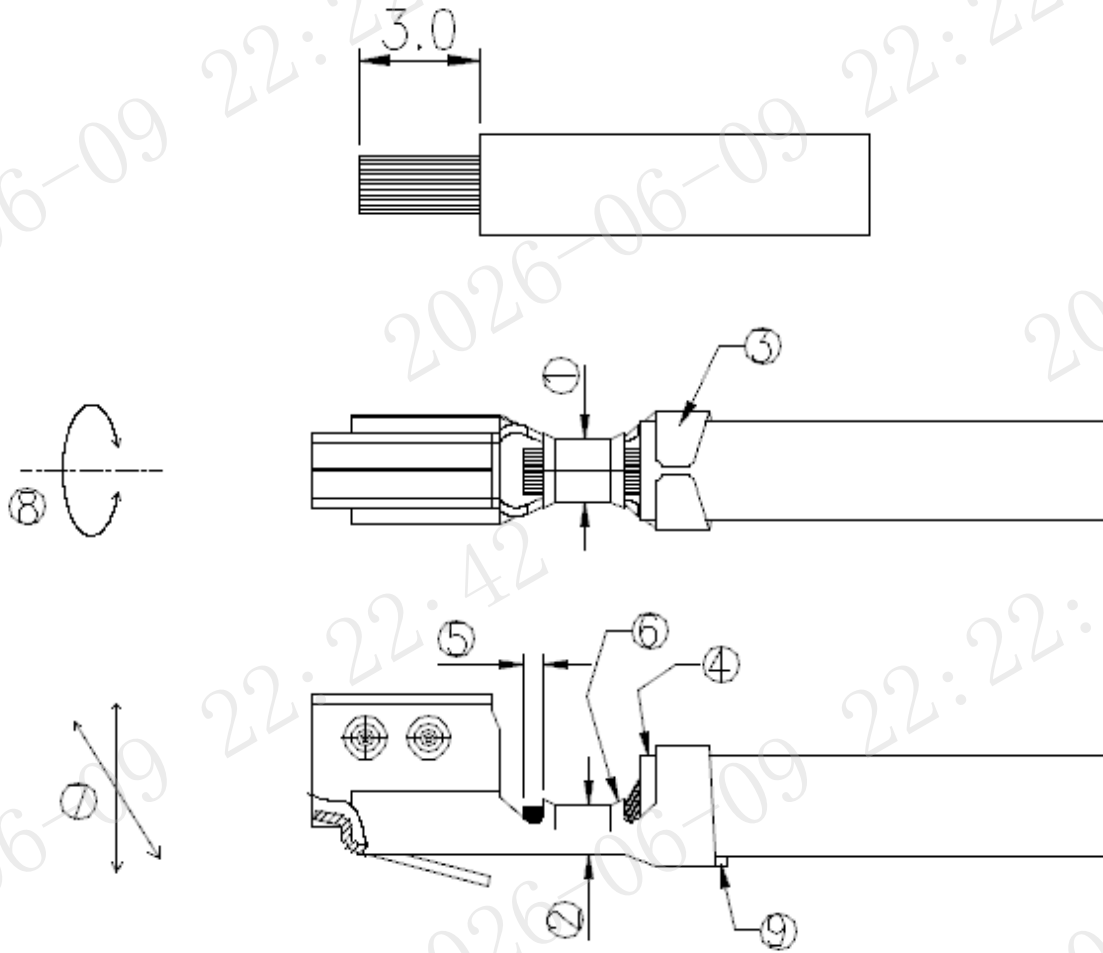
产品应用规格书
Product Application Specification

页码 page

3-6

5. 产品压接指导 Product crimping guidance

5.1 压接要求 Crimping requirements





浙江珠城科技股份有限公司

ZHEJIANG ZUCH TECHNOLOGY CO., LTD

产品系列

VHE 系列

文件名称
Document name

产品应用规格书
Product Application Specification

页码 page

4-6

序号 No.	压接检查要素 Crimping inspection elements	技术要求 Requirement
(1)	导线剥线长度 Strip length	3.0±0.2mm
①	线芯段压接宽度 (CCW) Conductor crimping width	见表 1 (仅供参考) See table 1 (For reference only)
②	线芯段压接高度 (CCH) Conductor crimping hight	
③	线皮压接形状 Pressure joint shape of rubber sheet	见表 2 (仅供参考) See table 2 (For reference only)
④	压线脚衔接段 Transition Area	线芯和线皮需同时可见 Conductors and wire insulation both visible in translation area.
⑤	导线末端漏出长度 Wire Brush	0.5±0.2mm
⑥	喇叭口 Rear Bellmouth	喇叭口必须可见且不可压伤线芯 The rear bellmouth must be visible and cannot crush the wire core
⑦	压接后弯曲度 Straightness	四向弯曲度≤3° Four-way bending≤3°
⑧	压接后扭曲度 Twist and Roll	≤5°
⑨	余料长度 Surplus length	0-0.3mm

Table 1:

单位 Unit: mm

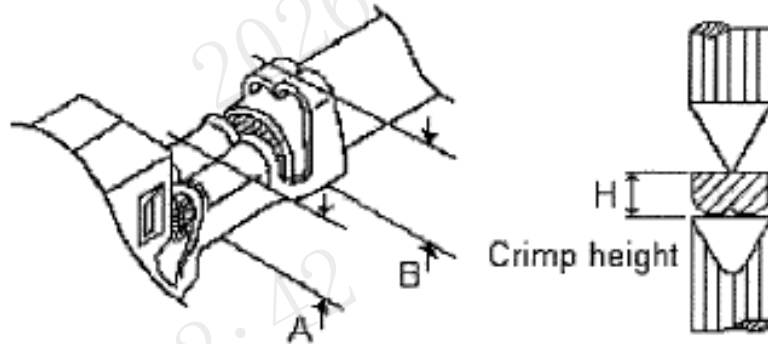
产品型号 New part No.	适用线型 Applicable linetype	线芯段压接 宽度 CCW	线芯段压接高度 CCH
TP3960E-1301	AWG22(0.3 ²)	1.40±0.05	0.80±0.05
TP3960E-1302	AWG20(0.5 ²)	1.78±0.05	0.96±0.05
	AWG18(0.75 ²)		1.11±0.05
TP3960E-1303	AWG18(0.75 ²)	2.03±0.05	1.09±0.05
	AWG16(1.25 ²)		1.28±0.05



5.2 检测方法 Check method

5.2.1 尺寸检查:如图一, A 为线芯段测量位置, B 为线皮段测量位置。

5.2.1 Dimension inspection: as shown in Figure 1, A is the measurement position of core section and B is the measurement position of insulation section.



图一 Figure 1

测量 A 尺寸时, 应以千分尺测量, 测量区域为压接形状的正中位置, 以保证测量值的准确性, 如图一右侧视图所示, 测量结果应符合“表 1”。

测量 B 尺寸时, 可用游标卡尺测量, 外形尺寸符合“表 1”即可。

Use a micro caliper to measure dimension A, to assure the accuracy of the conductor crimping height measurement, measure the crimp height at the center of barrel as show in the right of Figure 1, the measurement shall be in compliance with table 1.

A vernier caliper to measure dimension B, the measurement shall be in compliance with table 1.

5.2.2 剖面分析 Crimping cross section analysis.

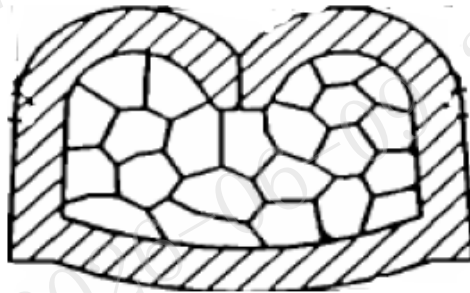
线芯段要求:

端子在制作破面时, 应注意避开端子本身的浅槽, 应垂直压线脚轴线。

Wire conductor requirement after crimping:



When making the cross section, make sure to keep away from the serration area of the terminal, and the cross section shall be vertical to the axis.



- 1. 压接剖面应无孔隙，导线芯数等于压接前的芯数，每根线芯均应发生变形；
- 2. 不可有孤岛现象。

- 1. Cross section must be without hole, the number of cored wires shall be same to the qty before the crimping, and the every cored wire shall be deformed after crimping.
- 2. Isolated island phenomenon is not allowed.

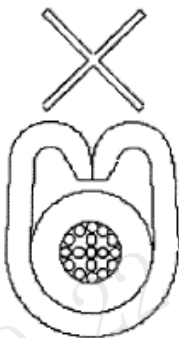
线皮段要求：

如下图所示,端子压线脚应固定导线，且不可刺入线皮接触芯线。

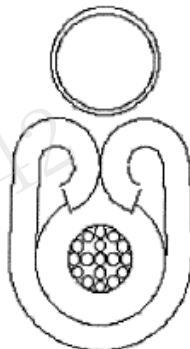
Wire insulation requirement after crimping:

The insulation barrel shall hold the lead wire securely without thrust into the wire insulation and damage the cored wire.

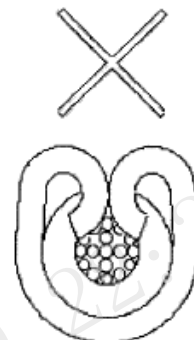
Table 2:



NG



OK



NG