


Superseal1.0 34P with lever Connector Application
Superseal1.0 34P 带拉杆连接器应用规范

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CONTENT

目录

1. General	3
1. 综述	3
1.1 Purpose	3
1.1 目的	3
1.2 Customer Drawing	3
1.2 客户图纸	3
1.3 Product Specification	3
1.3 产品规范	3
2. Product Description	3
2. 产品描述	3
2.1 Plug connector	3-4
2.1 母端连接器	3-4
2.2 Header connector	5
2.2 板端连接器	5
2.3 Accessories	6
2.3 附件	6
2.3.1 Backshells	6-7
2.3.1 尾夹	6-7
2.3.2 Blind plug	7-8
2.3.2 盲堵	7-8
2.3.3 Applicable terminal and crimping specifications	8
2.3.3 适用端子及压接规范	8
3. Application Description	8
3. 应用说明	8
3.1 Loading Plug connector with terminal	8-9
3.1 母端连接器组装端子	8-9
3.2 Mating Plug& Header connector	9-11
3.2 公母端连接器装配	9-11
3.3 Unmating Plug& Header connector	11-12
3.3 公母端连接器分离	11-12
3.4 Extracting terminal from plug connector	12
3.4 从母端连接器中退端子	12
3.5 Installation of Header connector	13
3.5 板端连接器的安装	13
3.5.1 Assembly with PCB	13
3.5.1 和 PCB 安装	13
3.5.2 Assembly with Panel	13-14
3.5.2 和面板安装	13-14



1. General

1. 综述

1.1 Purpose

1.1 目的

This specification includes the guidelines for application and mounting of subject connectors and their accessories.

本规范包括主体连接器及其配件的应用和安装。

1.2 Customer Drawing

1.2 客户图纸

For dimensions, materials and surface finishes etc. see the current customer drawings.

有关尺寸，材料和表面光洁度等，请参见当前的客户图纸。

1.3 Product Specification

1.3 产品规范

This application specification is valid for products specified in product specification 108-160647, which provides a description of the electrical and mechanical properties of multi-pos. connectors. Also see the current relevant contact systems product and application specifications.

该应用规范对产品规范 108-160647 中指定的产品有效，该规范提供了多位连接器的电气和机械性能的描述。另请参阅当前相关的端子系统产品和应用规范。

2. Product Description

2. 产品描述

2.1 Plug connector

2.1 母端连接器

As figure 2.1 shows, Super seal plug connector contains 8 parts(Radial seal, Socket insulator, Final lock, Initial lock, family seal ,Locking&Back plates,lever and CPA).

如图 2.1 所示，Superseal 母端连接器包含 8 部分（密封圈，绝缘座，终锁，初锁，密封垫，后盖，拉杆，连接器位置锁）

The radial seal is to provide seal protection after the assembly of Plug and Header.

密封圈可以提供 Plug 与 Header 装配后的密封保护。

The socket insulator is to protect the terminal, fix the terminal position, provide the fixed method and provide Coding error proof.

绝缘座可以保护端子，固定端子位置，提供固定方式及不同 Coding 间防错。

Final lock is to provide secondary assurance of the position after the terminal is inserted into the plastic.

终锁用来提供端子插入塑胶后的位置二次保证。

The initial lock is to provide position assurance after the terminal is inserted into the plastic.

初锁用来提供端子插入塑胶后的位置保证。

The family seal is to provide seal protection for connector and wire.

密封垫可提供连接器和导线的密封保护

locking & back plates is to fix and protect the family seal.
后盖用来固定和保护密封垫.

The lever can provide matching assistance for plug and header mating.
拉杆可以提供公母端的对配辅助

The CPA provides position assurance for plug and header.
连接器位置锁提供公母连接器的位置保证

There are two kinds of CODING. There are differences in the structure of Socket insulator between various CODING. In case of mis-insertion, please assemble according to different coding. (The male CODING 1 must be assembled with female CODING 1).

此类产品有两种 CODING,各种 CODING 间的绝缘座结构存在差异,以防误插,请根据不同的 coding 对应装配(即公端 CODING 1 装配母端 CODING 1),详见产品图。

Note: if the insertion force is very big, please confirm whether the wrong product is installed. Please avoid excessive force in the case of mis-insertion to cause damage to the product. If excessive force causes damage to the product, replace the damaged product for assembly.

注意: 如当插入力量过大时,请确认是否装错产品,请避免错插情形下过度用力导致产品损坏.若过度用力导致产品损坏需更换破损产品进行装配。

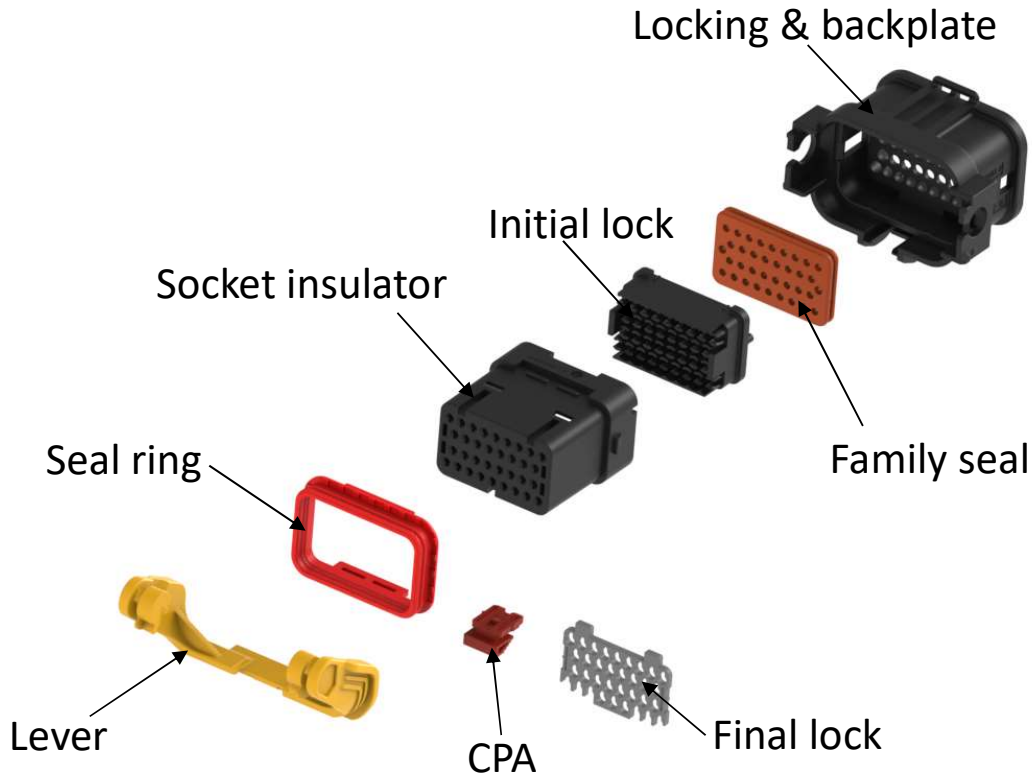


Figure 2.1 34pos. Plug Connector with lever

图 2.1 34 位母端连接器带拉杆

See detail P/N as below table:

具体料号如下:

Coding	Plug connector	C-drawing
Coding 1	2430273-1	C-2430273
Coding 2	2430273-2	C-2430273

2.2 header connector

板端连接器

As figure 2.2 shows

如图 2.2 所示



Figure 2.2 34pos. Header Connector

图 2.2 34 位板端连接器

There are two kinds of CODING. There are differences in the Housing between various CODING. In case of mis-insertion, please assemble according to different coding. (The male CODING 1 must be assembled with female CODING 1).

此类产品有两种 CODING, 各种 CODING 间的绝缘座结构存在差异, 以防误插, 请根据不同的 coding 对应装配 (即公端 CODING 1 装配母端 CODING 1), 详见产品图。

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See detail P/N as below table:

具体料号如下:

Coding	Header connector	C-drawing	Type	Pin
Coding 1	8-2388688-5	C-2430420	Flange type	180°
Coding 2	8-2388688-6	C-2430420	Flange type	180°

2.3 Accessories

2.3 附件

Required accessories are shown in figure 2.3
附件见下图 2.3



90° Backshell



Blind plug

Figure 2.3
图 2.3

2.3.1 Back shell

2.3.1 尾夹

Figure 2.3.1.1 shows plug Backshell which can provide protection against the rear of the connector to achieve IPX9K.

图 2.3.1.1 是母端尾夹，提供接插件尾部的防护，防护等级可达到 IPX9K



Figure 2.3.1.1
图 2.3.1.1

As figure 2.3.1.2, the part numbers and types are available for selection

如图 2.3.1.2 所示，以下料号和类型可供选择。（34P）

CONNECTOR	TYPE	CORRUGATED TUBE SIZE	BACKSHELL P/N
PLUG (34P)	90°	NW19	2459350-1

Figure 2.3.1.2

图 2.3.1.2

The installation step picture as below figure 2.3.1.3.

安装步骤示意图见图 2.3.1.3。



Figure 2.3.1.3 Installation figure

图 2.3.1.3 安装效果示意图

2.3.2 Blind plug

2.3.2 盲堵

Figure 2.3.2.1 shows blind plug

图 2.3.2.1 是盲堵。



Figure 2.3.2.1 Blind plug

图 2.3.2.1 盲堵

As figure 2.3.2.2, 4-1437284-3 is for all holes, top part insert into cavity to end-lock with click sound.

如图 2.3.2.2，使用盲堵 4-1437284-3，将盲堵的尖端装入孔位，直至听到咔哒声，表示安装到位。



Figure 2.3.2.2
图 2.3.2.2

2.3.3 Applicable terminal and crimping specifications

2.3.3 适用端子及压接规范

For further information, 114-78011/114-78013 can be seen. In case of conflict, this document shall prevail.
具体可参考 114-78011/114-78013 压接规范。如有冲突以此份文件为准

3. Application Description

3. 应用说明

3.1 Loading Plug connector with terminal

3.1 母端连接器组装端子

Terminals can only be inserted when the Final lock is in the pre-locked position as figure 3.1. If the Final lock is in the final lock state as figure 3.1, the Final lock needs to be pulled to the pre-lock and then operates.
端子只有在终锁结构在预锁状态(如图 3.1)下才能插入。若终锁结构在终锁状态(如图 3.1)需将终锁结构拉至预锁再进行操作

Step1, please make sure that the terminal is inserted horizontally and inserted into the right position as shown in figure below (When hearing the click sound, pull the cable gently and it cannot be pulled).
第 1 步, 请如下图确保端子朝向水平插入且插入到位(听到卡搭声且往后轻拉, 线无法拉动)。

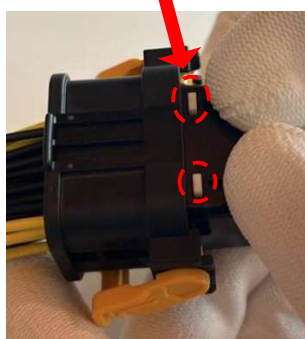


Terminals visible at the front end
前端端子可见



Step2, after all the terminals inserted into the right position, press the Final lock from the pre-lock to the final lock state as figure 3.1 shows. (When hearing the click sound, pull the cable gently and it cannot be pulled).
第 2 步, 所有端子都安装到位后, 将终锁从预锁按到终锁状态, 如图 3.1 所示(听到卡搭声, 往后轻拉线无法拉动)。

Simultaneously press the following two white protrusions, Press the final lock part to the final lock position
同时按压如下两个白色凸点，使终锁零件接到终锁位置



Final lock in pre-lock (White protrusions)
终锁在预锁位置(白色凸点凸出)



Final lock in final lock
(The white protrusion is flush with the Socket insulator)
终锁在终锁位置(白色凸点与绝缘座齐平)

Figure 3.1 Contact loading into the socket housing.
图 3.1 端子插入塑壳示意图

i Note 1: If the Final lock does not fully close, MOVE it to the pre-lock position, ensure that all contacts are fully seated, then try again. **DO NOT force the Final lock to close.**
如果终锁无法按压到位，请将终锁退到预锁位置，确认每个端子都插入到位后再次按终锁。切不可在端子未插入到位时强行按压终锁。

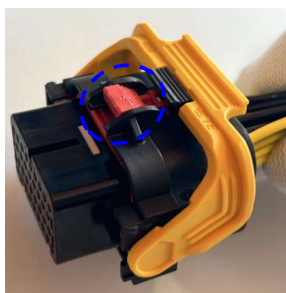
i Note 2: Press the left and right white protrusions simultaneously to ensure that the left and right balance is pressed to the final lock position.
Note 2: 按压终锁请左右凸点同时按压，以确保左右平衡按到到终锁位置。

3.2 Mating Plug& Header connector

3.2 公母端连接器装配

Please make sure that the red CPA remains in the pre lock position of the shipment status. If the CPA reaches the final lock position, it is necessary to first retract the CPA to the pre lock position.

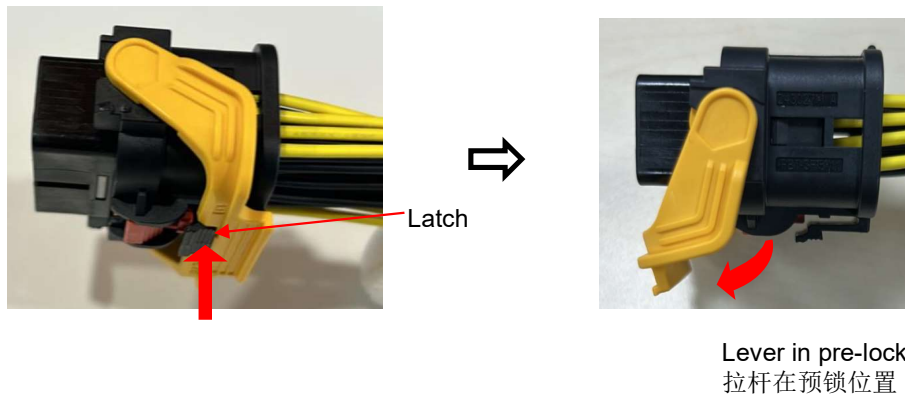
确保红色 CPA 保持在出货状况的预锁位置，如 CPA 跑到终锁位置，需先把 CPA 退到预锁位置



CPA in pre-lock
连接器位置锁在预锁位置

Step1, As figure shows, First press or use a tool to press the Latch of Locking & backplate Latch, then release the lever and turn it clockwise to the pre lock position

第 1 步, 如图所示, 先按压或借助工具按压后盖 Latch 后, 释放 Lever 顺时针转动到预锁位置

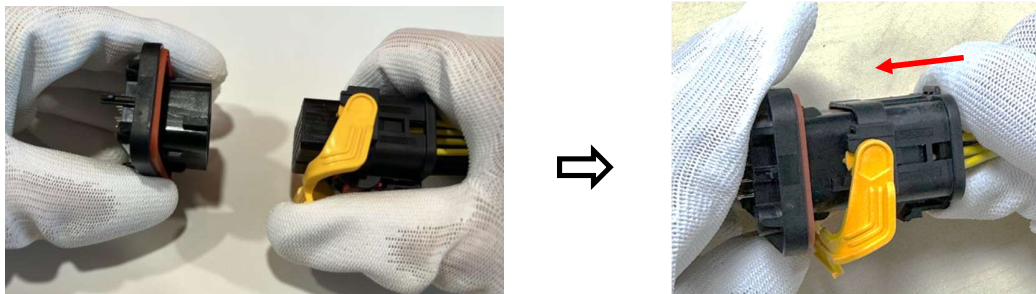


Step2, Match the Plug along the matching direction to the pre lock position of the connector (that is, slide the gear teeth on the lever above the header rack), and at this point, the male and female connectors collide with each other.

第 2 步. 将母端沿对配方向对配到连接器预锁位置 (即母端 Lever 上齿轮卡齿滑入 Header 齿条上方), 这时公母连接器相互碰上.

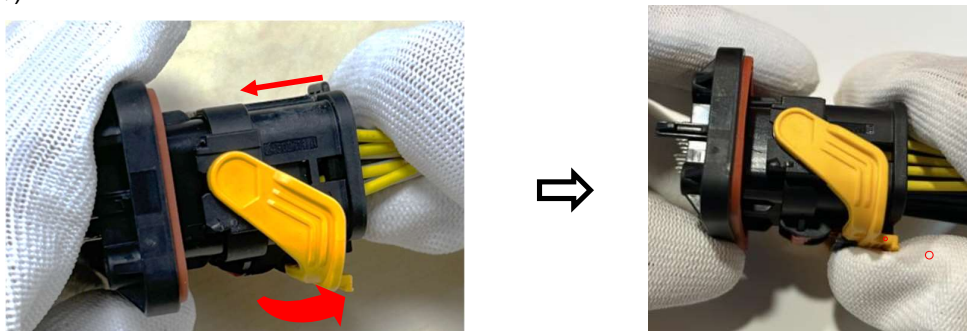
i Note: Do not to rotate the lever at this position to avoid the problem of unsynchronized meshing of the left and right gears when the plug is inserted into the header with angular skewing)

注意:不要在此位置去转动 Lever,以避免公母端斜插导致左右齿轮啮合不同步的问题。



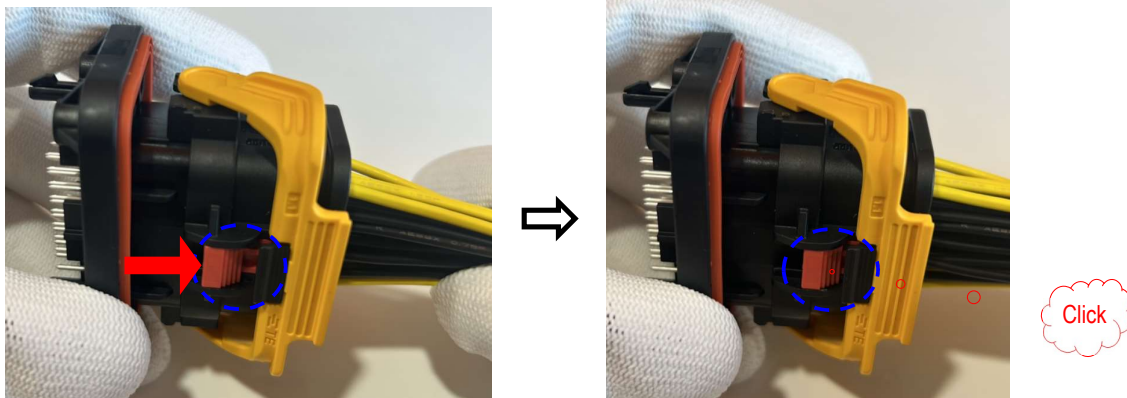
Step3, Continue to apply thrust to the Plug end, at which point the lever will automatically rotate counterclockwise until it touches the latch of the Locking & backplate. Press the lever to the final locking position to engage the latch on the Locking & backplate, a click occurs. (Ensure that there should be no other obstacles hindering the rotation of the lever during this process.)

第 3 步. 对母端继续施加推力, 这时 Lever 会自动逆时针旋转直到碰到后盖上的 Latch 后, 按压 Lever 到终锁位置, 以卡入后盖 Latch, 到位时会有咔哒声音。(确保这个过程中不能有其他障碍物阻碍 Lever 的转动)



Step4, Move the CPA to the final lock position, a click occurs.

第4步, 拨动 CPA 到终锁位置, 到位时会有响声回应。



CPA in pre-lock
连接器位置锁在预锁位置

CPA in end-lock
连接器位置锁在终锁位置

i Note: As figure shows, when the plug is inserted into the header with angular skewing, it is possible to bend the header terminal. At the same time, the male and female terminals also have the risk of withdrawing the needle.

注意: 如图所示, 当斜插入装配后, 有可能将公端子折弯。同时公母端子也存在退针的风险。

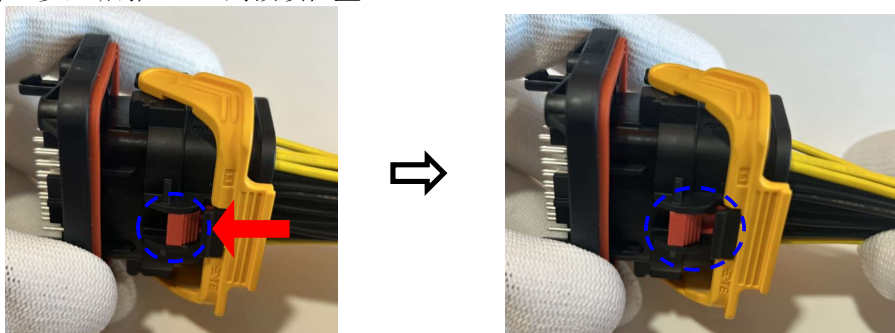


3.3 Unmating Plug& Header connector

3.3 公母端连接器分离

Step1, Push CPA back to the pre-lock position

第1步, 后推 CPA 到预锁位置

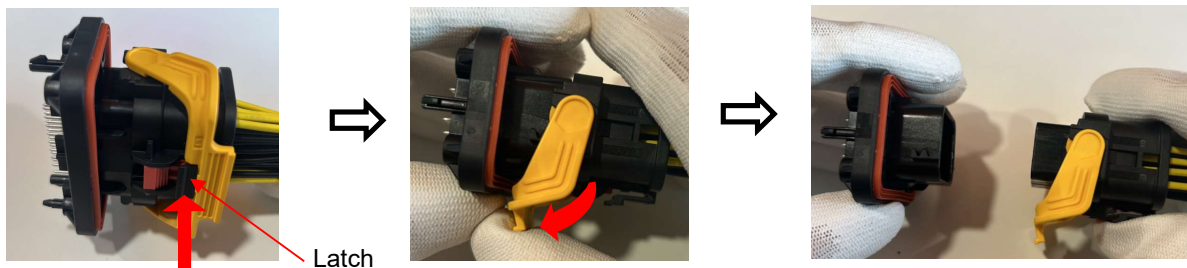


CPA in end-lock
连接器位置锁在终锁位置

CPA in pre-lock
连接器位置锁在预锁位置

Step 2, After pressing the Latch on the Locking & backplate, release the lever and rotate it clockwise to the pre lock position. Hold the male and female connectors and directly unplug them to completely separate them.

第 2 步. 按压后盖 Latch 后, 释放 Lever 并顺时针转动 Lever 到预锁位置, 握住公母端连接器直接拔开, 使连接器完全分离。

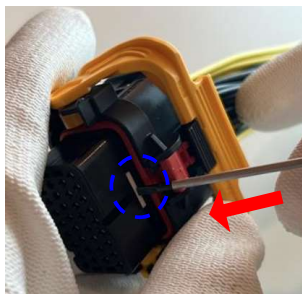


3.4 Extracting terminal from plug connector

3.4 从母端连接器中退端子

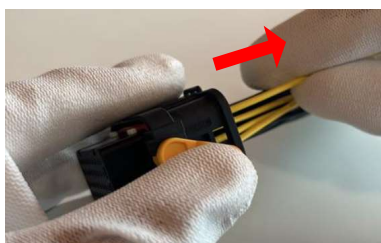
Step1, Use a tool to push the Final lock surface until to its pre-lock position.

第 1 步. 用工具按压如下终锁零件位置(如图示)使其从终锁位置按压到预锁位置
(注意不要按伤塑胶)



Step1, Gently pull the wire out of the plastic

第 2 步. 轻拉导线使线拉出塑胶



Final lock MUST BE ON ITS PRELOCK POSITION BEFORE CONTACT REMOVAL.
在退端子前必须将终锁置于其预锁位置。

3.5 Installation of Header connector

3.5 板端连接器的安装

3.5.1 Assembly with PCB

3.5.1 和 PCB 安装

As figure 3.5.1, header mount on PCB. Recommend wave solder process, 260°C (Max.) for 3~5s.

如图 3.5.1, header 安装在 PCB 上。推荐波峰焊, 最大 260°C 3~5 秒。

Refer to C-drawings for the recommended spec of PCB.

参考 C 图上推荐的 PCB 尺寸。

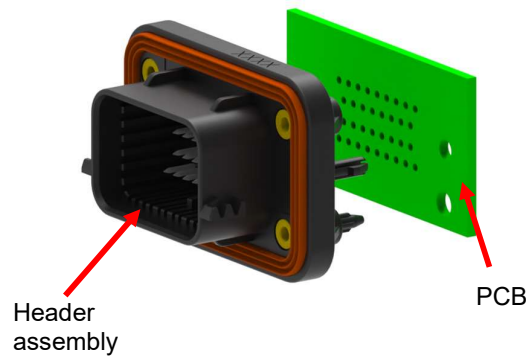


Figure 3.5.1
图 3.5.1

3.5.2 Assembly with Panel

3.5.2 和面板安装

Customer seals the panel and connector by fixing them with M3 screws. As figure 3.5.2

客户可通过安装 M3 螺丝, 将面板和连接器密封。如图 3.5.2 所示。

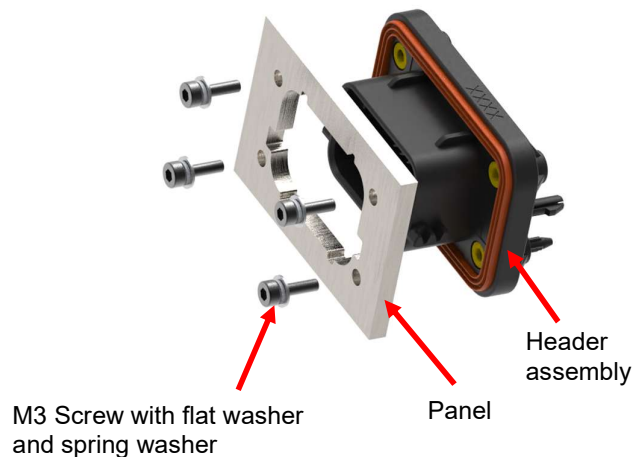


Figure 3.5.2
图 3.5.2

Recommend thickness of panel 4mm Max.

Recommend screw length = thickness of panel + engagement length, the engagement length is 8mm.

推荐板厚度 4mm 最大

推荐螺丝长度=面板厚度+8mm, 8mm 是螺丝锁入长度

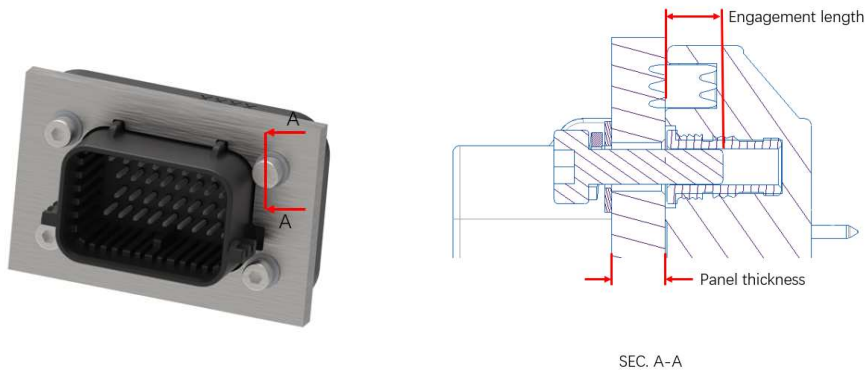


Figure 3.5.3
图 3.5.3

Recommend screw torque is 0.8~1.0Nm.

推荐螺丝扭力 0.8~1.0Nm.