

MA312 (cn_en) 安装说明

DuraDock power 28

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MA312 (cn_en) Assembly instructions

DuraDock power 28

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安全须知

仅可使用 Stäubli 指定的组件和工具。自行装配时,切勿背离本手册所述的制备及装配说明,否则 Stäubli 无法保证产品安全性或性能达到官方技术参数。请勿以任何方式修改产品。

可与 Stäubli 元件插合的非 Stäubli 原厂制造的连接器的,在某些情况下,某些制造商甚至将其描述为“与 Stäubli 兼容”,但该连接器并不符合长期稳定安全的电连接要求,而且出于安全考虑,不得与 Stäubli 元件插合在一起。因此,Stäubli 对因此类连接器(即未经 Stäubli 批准)与 Stäubli 元件插合而造成的任何损失不承担任何责任。

如您未遵守上述警告,则 Stäubli Electrical Connectors (Stäubli) 不承担任何责任。

Safety instructions

Use only the components and tools specified by Stäubli. In case of self-assembly, do not deviate from the preparation and assembly instructions as stated herein, otherwise Stäubli cannot give any guarantee as to safety or conformity with the technical data. Do not modify the product in any way.

Connectors not originally manufactured by Stäubli which can be mated with Stäubli elements and in some cases are even described as "Stäubli-compatible" by certain manufacturers do not conform to the requirements for safe electrical connection with long-term stability, and for safety reasons must not be plugged together with Stäubli elements. Stäubli therefore does not accept any liability for any damages resulting from mating such connectors (i.e. lacking Stäubli approval) with Stäubli elements.

Stäubli Electrical Connectors (Stäubli) does not accept any liability in the event of failure to observe these warnings.

应用范围

连接器只可用于机械导向安装板的应用。安装板的设计决定连接系统的锁紧、导向以及浮动程度。

Intended use

Connectors can only be used for applications in mechanically guided mounting plates. The locking, guiding and floating of the connection must be ensured by the design of those mounting plates.



IEC 60417-6182 安装需电气专业知识

产品可由具备电气技能或受过此方面指导的人员依照适用的安全法规进行装配或安装。

Installation, electrotechnical expertise

The products may be assembled and installed by electrically skilled or instructed persons duly observing all applicable safety regulations.



IEC 60417-6042 注意电击风险

请在断电状态下工作
操作电气装置时,请遵守五项安全规定。
各电气装置确定后,应按照规定顺序执行以下五项基本要求(除非另有必要理由):

- 完全分离;
- 确保不会重新连接;
- 确认无工作电压;
- 进行接地和短路;
- 针对临近带电部件提供防护。

任何从事此工作活动的人员均应具备电气技能或受过此方面指导,或者由同等能力的人员监督。

来源:EN 50110-1:2013

最终应用时,还应检查电击防护。

Caution, risk of electric shock

Work in a de-energized state
Follow the five safety rules, when working on electrical installations.
After the respective electrical installations have been identified, the following five essential requirements shall be undertaken in the specified order unless there are essential reasons for doing otherwise:

- disconnect completely;
- secure against re-connection;
- verify absence of operating voltage;
- carry out grounding and short-circuiting;
- provide protection against adjacent live parts.

Any person engaged in this work activity shall be electrically skilled or instructed, or shall be supervised by such a person.

Source: EN 50110-1:2013

Protection against electric shock shall be checked in the end-use applications too.



IEC 60417-6070 在负载下请勿断开连接

不允许带电时插拔插头。

Do not disconnect under load

Plugging and unplugging when live is permitted.

安全指令

Safety instructions



ISO 7000-0434B
注意

Caution

每次使用连接器前,需提前检查外部是否有缺陷(尤其是绝缘层)如有安全疑虑,必须咨询专业人员或更换连接器。

Each time the connector is used, it should previously be inspected for external defects (particularly the insulation). If there are any safety concerns, an electrically skilled person must be consulted or the connector must be replaced.

连接器的防水功能可参考相关产品的IP保护等级。

The plug connectors are watertight in accordance with the product specific IP protection class.

未插合的连接器必须防潮防尘。被污染的公母连接器不应插合使用。

Unmated plug connectors must be protected from moisture and dirt. The male and female parts must not be plugged together when soiled.

连接器的技术规格根据系统类别、IEC或UL(额定电压和电流)划分,种类繁多。更多信息请参见产品目录。

The technical specifications of the connector vary depending on the system classification, IEC or UL (rated voltage and current). For more information, please see the product catalog.



禁止在此处行走或站立

Do not walk or stand here

禁止踩踏连接器或开关箱。

Do not step on connectors or switch boxes.



产品使用说明或技巧

Useful hint or tip

更多技术参数请见产品目录。

For further technical data please see the product catalog.

CE 认证/Conformity

Stäubli Electrical Connectors GmbH
Hegenheimerstraße 19
79576 Weil am Rhein
Germany

UK CA 认证/Conformity

Stäubli (UK) Ltd.
Hadley Park E, Hadley
Telford TF1 6QJ
United Kingdom

下列产品符合欧盟/英国的相关要求:

Following Products are in conformity with the relevant EU/UK requirements:

DPR28P-SDD-CB95M32	18.0509	DPR28S-ISD-CLG240M50	18.0254
DPR28S-SDD-CB95M32	18.0508	DPR28S-ISD-CB240M50	18.0253
DPR28S-SDD-CB240M50	18.0252	DPR28P-SDD-CB240M50	18.0251
DPR28P-ISD-CLG240M50	18.0255	DPR28S-SDD-CB120M40	18.0271
DPR28P-ISD-CB240M50	18.0262	DPR28S-SDD-CB150M40	18.0272
DPR28P-SDD-CB120M40	18.0268	DPR28P-SDD-CB185M40	18.0270
DPR28P-SDD-CB150M40	18.0269	DPR28P-ISD-CB95M50	18.0299
DPR28S-SDD-CB185M40	18.0273	DPR28S-ISD-CLG185M50	18.0279
DPR28S-ISD-CB95M50	18.0389	DPR28S-ISD-CB185M50	18.0277
DPR28P-ISD-CB185M50	18.0281	DPR28P-ISD-CB150M50	18.0287
DPR28P-ISD-CLG185M50	18.0275	DPR28P-ISD-CLG150M50	18.0283
DPR28S-ISD-CB150M50	18.0289	DPR28P-ISD-CB120M50	18.0297
DPR28S-ISD-CLG150M50	18.0285	DPR28P-ISD-CLG120M50	18.0291
DPR28S-ISD-CLG120M50	18.0290		
DPR28S-ISD-CB120M50	18.0295		

Produktausführungen

Product range

非屏蔽非绝缘版本
页码 6 – 17

Version unshielded, uninsulated
Page 6 – 17



DPR28P-UIS-CLG*



DPR28S-UIS-CLG*



DPR28P-UIS-CB*



DPR28S-UIS-CB*

可能的可连接导线横截面:

Possible connectable conductor cross sections:

DPR28P-UIS-CLG*; DPR28S-UIS-CLG*
120 mm²; 150 mm²; 185 mm²; 240 mm²

DPR28P-UIS-CB*; DPR28S-UIS-CB*
95 mm²; 120 mm²; 150 mm²; 185 mm²; 240 mm²

非屏蔽绝缘版本
页码 18 – 31

Version unshielded, insulated
Page 18 – 31



DPR28P-ISD-CLG*M50



DPR28S-ISD-CLG*M50



DPR28P-ISD-CB*M50



DPR28S-ISD-CB*M50

可能的可连接导线横截面:

Possible connectable conductor cross sections:

DPR28P-ISD-CLG*M50; DPR28S-ISD-CLG*M50
120 mm²; 150 mm²; 185 mm²; 240 mm²

DPR28P-ISD-CB*M50; DPR28S-ISD-CB*M50
95 mm²; 120 mm²; 150 mm²; 185 mm²; 240 mm²

屏蔽/绝缘版本
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Version shielded, insulated
Page 32 – 64



DPR28S-SDD-CB*M50



DPR28P-SDD-CB*M50



DPR28P-SDD-CB*M50



DPR28S-SDD-CB*M50

可能的可连接导线横截面:

Possible connectable conductor cross sections:

DPR28P-SDD-CB*M50; DPR28S-SDD-CB*M50
95 mm², 120 mm², 150 mm², 185 mm², 240 mm² (其他导线横截面按要求确定/other conductor cross sections on request)

型号代码		Type code
产品名称: Product name:	DPR	DuraDock power
尺寸: Size:	28	接触直径 Contact diameter
型号: Type:	P	插头 Pin
	S	插座 Socket
制作方式: Execution:	UIS	非绝缘 Uninsulated
	ISD	绝缘 Insulated
	SDD	屏蔽 Shielded
连接类型: Connection type:	CLG	电缆接线头 Cable lug
	CB	压接头 Crimp connection
连接横截面: Connection cross-section:	240	240 mm ²
	185	185 mm ²
	150	150 mm ²
	120	120 mm ²
	95	95 mm ²
电缆格兰头尺寸: Cable gland size:	M50	螺纹尺寸 Thread size

示例:
Examples:

产品名称 Product name	尺寸 Size	型号 Type	制作方式 Execution	连接类型 Connection type	连接横截面 Connection cross section	电缆格兰头 Cable gland	总称 Overall designation
非屏蔽非绝缘/Unshielded, uninsulated							
DPR	28	P	UIS	CLG	240		DPR28P-UIS-CLG240
DPR	28	S	UIS	CLG	240		DPR28S-UIS-CLG240
DPR	28	P	UIS	CB	240		DPR28P-UIS-CB240
DPR	28	S	UIS	CB	240		DPR28S-UIS-CB240
非屏蔽绝缘/Unshielded, insulated							
DPR	28	P	ISD	CLG	240	M50	DPR28P-ISD-CLG240M50
DPR	28	S	ISD	CLG	240	M50	DPR28S-ISD-CLG240M50
DPR	28	P	ISD	CB	240	M50	DPR28P-ISD-CB240M50
DPR	28	S	ISD	CB	240	M50	DPR28S-ISD-CB240M50
屏蔽/Shielded							
DPR	28	P	SDD	CB	240	M50	DPR28P-SDD-CB240M50
DPR	28	S	SDD	CB	240	M50	DPR28S-SDD-CB240M50

1. 非屏蔽/非绝缘版本

1. Unshielded, uninsulated version

触摸保护

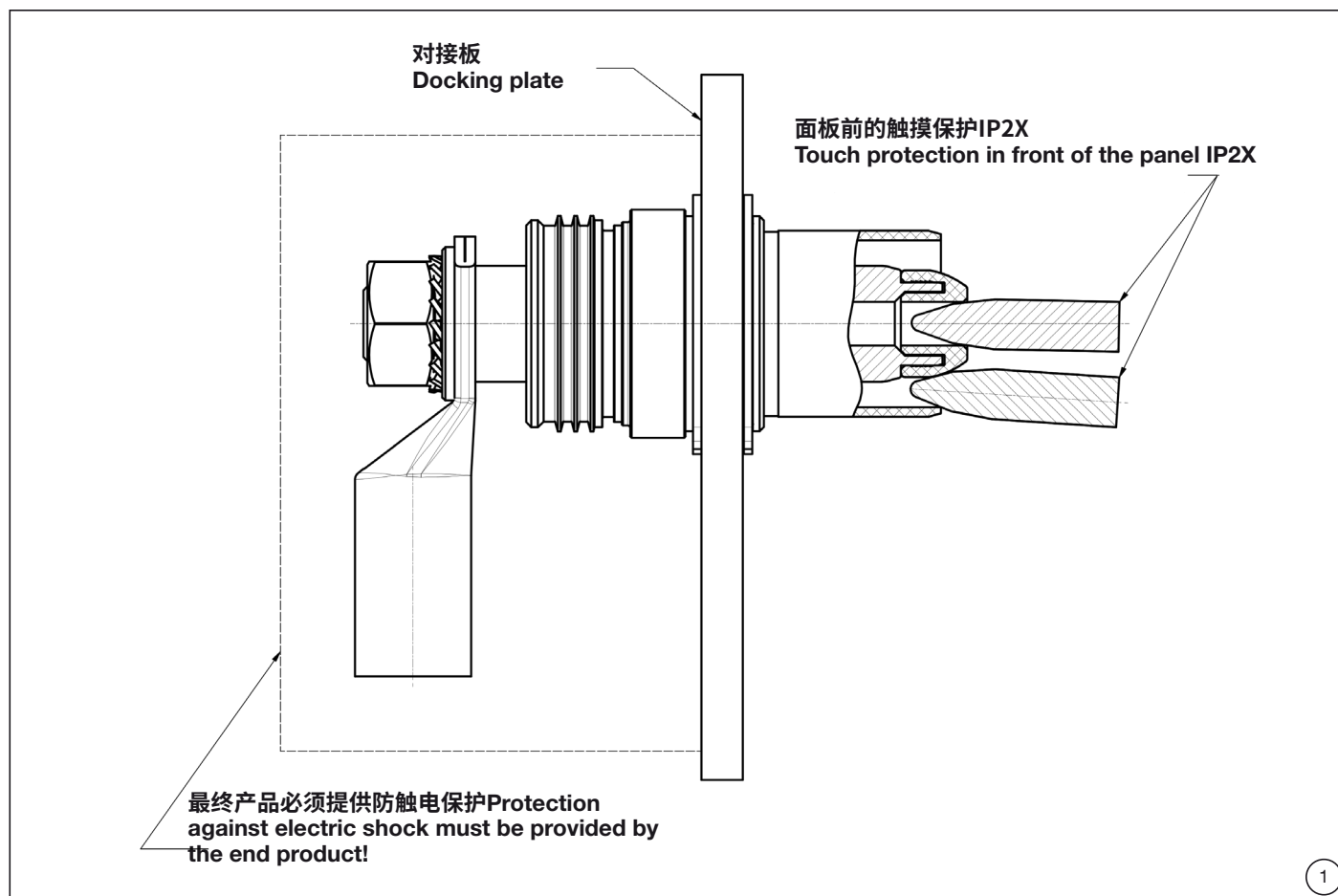
DuraDock 电源在对接板前面受 IP2X 保护, 适用于所有类型 (无绝缘、带绝缘、屏蔽) 的 IP2X 触摸保护。

在对接板后面, 非绝缘版本的最终产品必须提供防触电保护!

Touch protection

The DuraDock power is IP2X protected in front of the docking plate for all variants (without insulation, with insulation, shielded) IP2X touch protection.

Behind the docking plate, protection against electric shock must be provided by the end product for the uninsulated version!



1. 非屏蔽/非绝缘版本

1. Unshielded, uninsulated version

电气数据

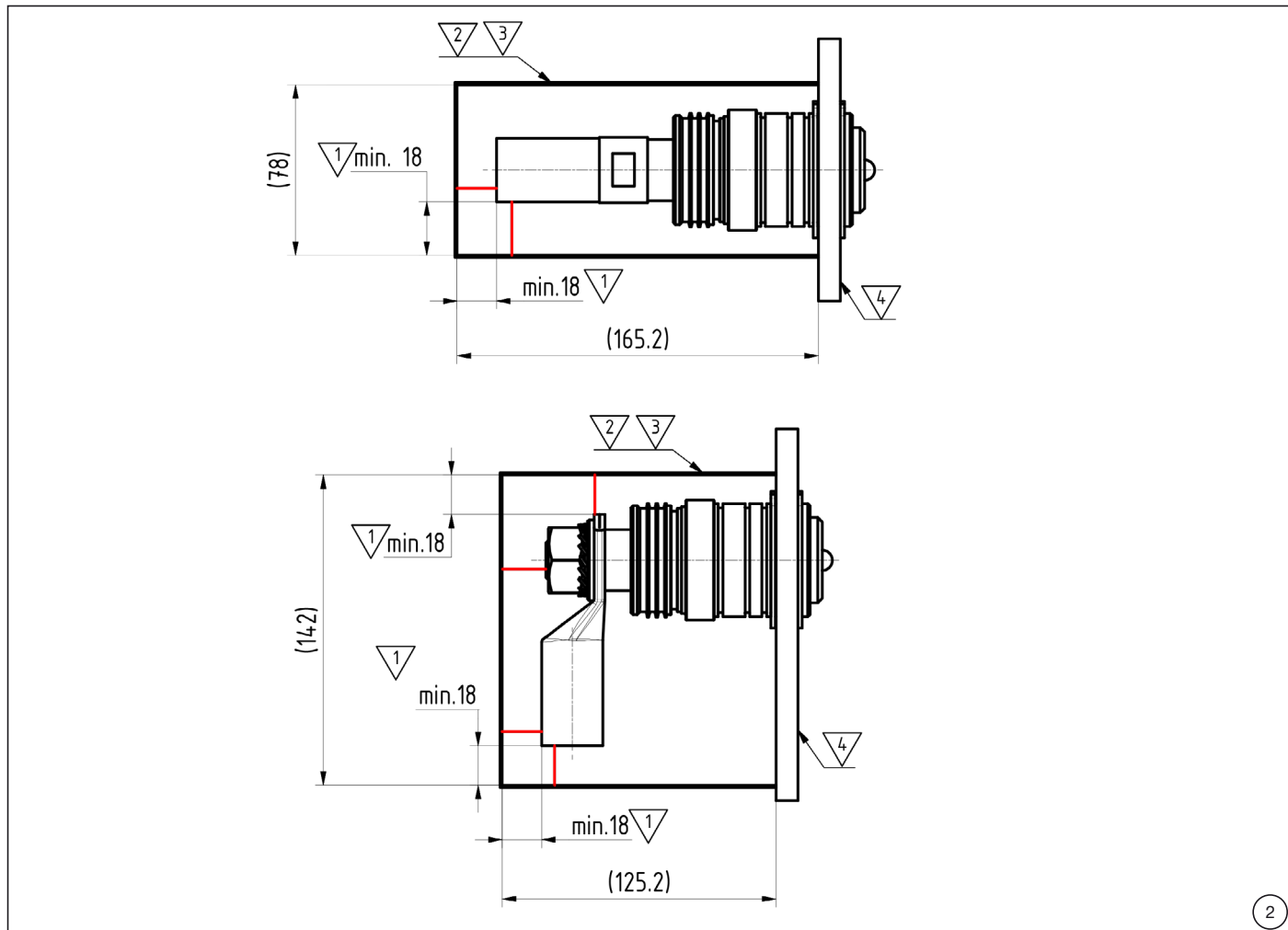
Electrical data

电压规格适用于有触电和意外接触的防护范围

Voltage specifications apply with protection range against electric shock and accidental contact

插头和插座端的步骤相同。

Same procedure for pin and socket side.



额定电压 U	Rated voltage U	AC 1000 V/DC 1500 V
额定电流 I	Rated current I	550 A
过压类别	Overtoltage category	CAT III
污染等级	Pollution degree	3
绝缘类别	Insulation group	I
最大环境温度	Max. ambient temperature	40 °C 1)
允许操作温度	Permissible operating temperature	100 °C

1) 在较高温度下, 根据降额图降低电流。/At higher temperatures, current rating is reduced according to the derating diagram.

1	根据 IEC 60664-1 (红色显示), 内部最小距离至防护区域的间隙必须保持为 18 mm。 Internal minimum distance for clearances is 18 mm in accordance with IEC 60664-1 (shown in red) to the protected area must be maintained.
2	防止触电和意外接触的防护区域。 Protection area against electric shock and accidental contact.
3/4	防护区域和对接板不在史陶比尔的交付货物范围内 Protective area & docking plate is not included in Stäubli scope of delivery

1. 非屏蔽/非绝缘版本

电缆夹

(不在交付货物之内)

为防止损坏 DuraDock power 28 的电源电缆, 需要额外的电缆夹。

这种电缆夹必须根据装置的可用空间提供, 不在史陶比尔交付货物之内。

图3 仅为示意图。

⚠ 注意

额外的电缆夹是绝对必要的, 这样就不会对电缆施加扭转、拉扭、张力或压力。

1. Unshielded, uninsulated version

Cable clamping

(not included in scope of delivery)

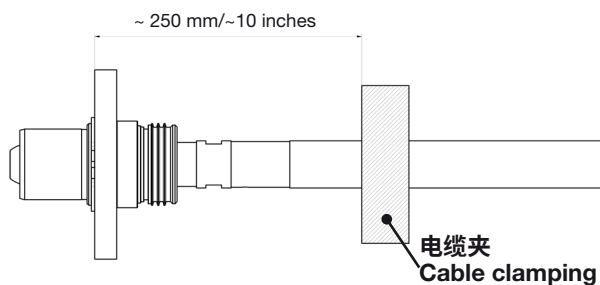
To prevent damage to the supply cable of the DuraDock power 28, an additional cable clamping is required.

This cable clamping must be provided in accordance with the available space of the installation and is not included in the Stäubli scope of delivery.

ill. 3 shows only a schematic representation.

⚠ Attention

An additional cable clamping is absolutely necessary so that no torsion, tension torsion, tension or pressure forces are exerted on the cables.

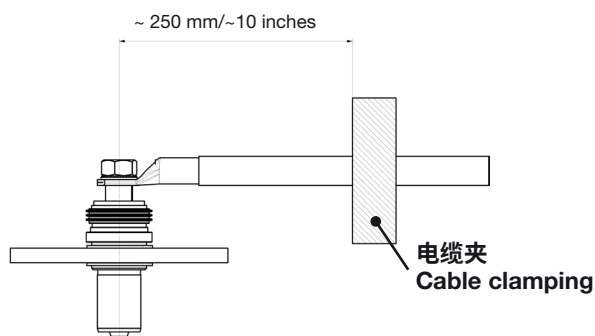


非屏蔽/非绝缘版本:

- 在250mm后安装电缆夹

Unshielded/uninsulated version:

- Attach cable clamping after ~ 10 inches



非屏蔽/非绝缘版本:

- 在250mm后安装电缆夹

Unshielded, uninsulated version:

- Attach cable clamping after ~ 10 inches

1. 非屏蔽/非绝缘版本

板厚度和间距

对接板的厚度必须为 10 mm 或 14 mm。
 对接板之间的距离必须为 13 mm 或 37 mm。
 (可选) 也有可能为板厚度 10 mm 和 14 mm 的组合。

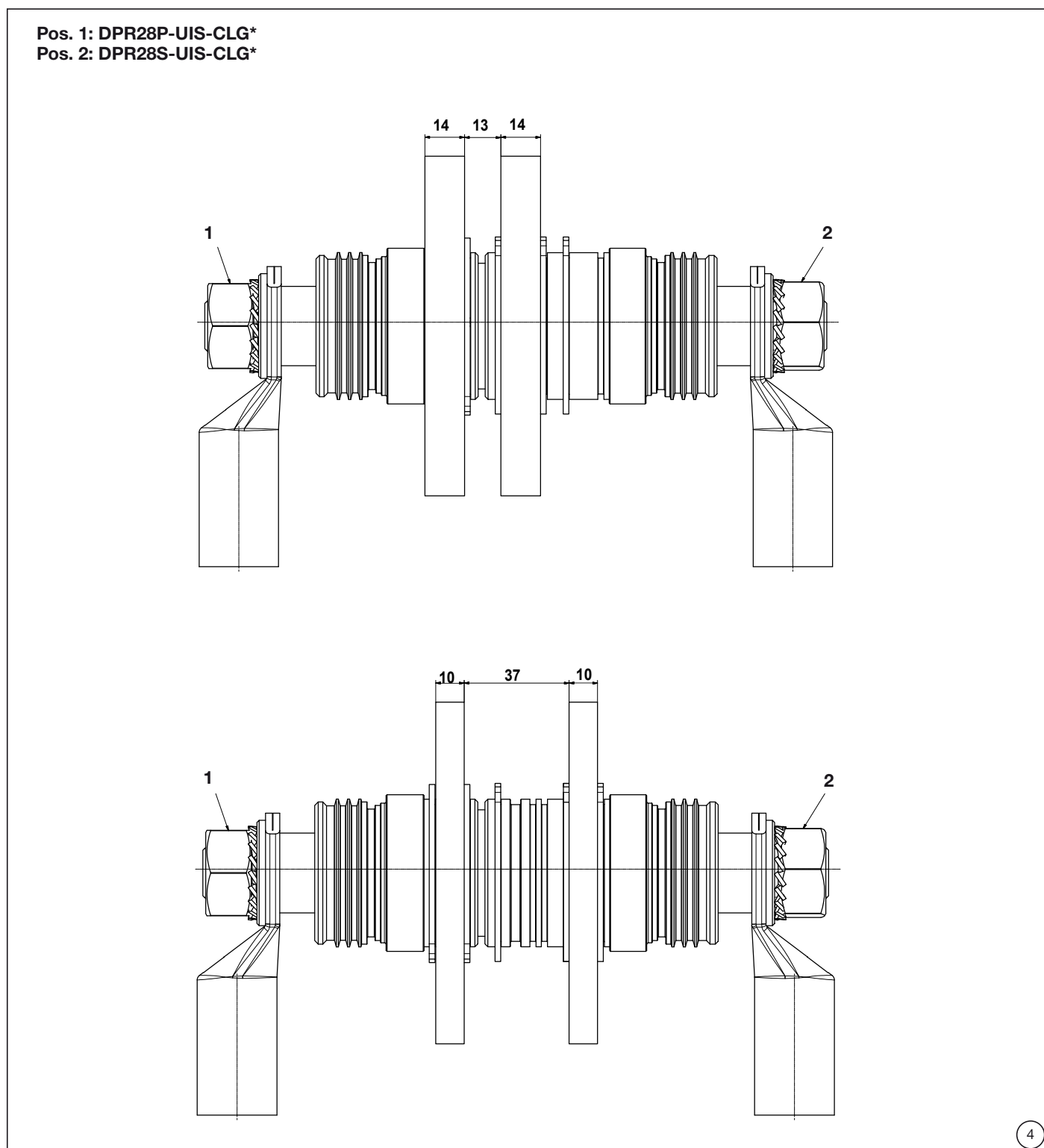
例如:

1. Unshielded, uninsulated version

Plate thickness and spacing

The thickness of the docking plate must either be 10 mm or 14 mm.
 The distance between the docking plates must be either 13 mm or 37 mm.
 Optionally, the combination of the plate thickness 10 mm and 14 mm is possible.

Example:



1. 非屏蔽/非绝缘版本

1. Unshielded, uninsulated version

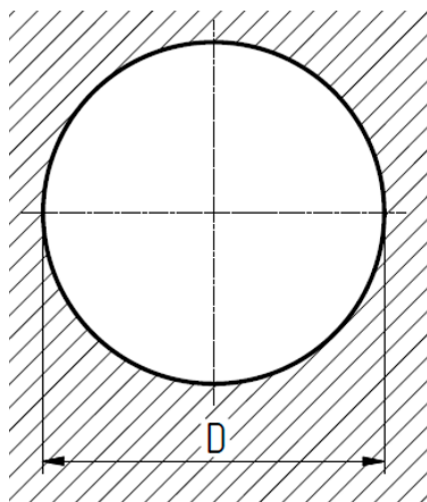
对接系统中的安装

Installation in docking system

钻孔图

Drilling plan

尺寸 3 - 插头外壳/Pin housing
Size 3 - 插座外壳/Socket housing



5

注意事项:

外壳不得用于机械校准。为了确保安全应用和正确对准面板，必须使用稳定的导轨和对准元件。

Note:

The housing must not be used for mechanical alignment. Stable guides and alignment elements must be used for safe application and correct alignment of the panels.

对接板尺寸 (固定支架) Size of docking plate (mounting bracket)	D ^{E8}	应用 Application
尺寸 3/Size 3 外壳/Housing	Ø 52	DRP28S-UIS-CLG* DPR28P-UIS-CLG* DPR28P-UIS-CB* DPR28S-UIS-CB*

1. 非屏蔽/非绝缘版本

1. Unshielded, uninsulated version

所需工具

Tools required



(图6)
压接钳
建议:
柯劳克 EK60VPFTCFM

(ill. 6)
Crimping pliers
Recommendation:
Klauke EK60VPFTCFM

i 提示:
操作说明, [链接](#)

i Hinweis:
Operating instructions, [link](#)



(图7)
28 mm 开口扳手

(ill. 7)
Open-end spanner 28 mm



(图8)
弯曲的卡箍钳:
• 用于 52 mm 的外圈

(ill. 8)
Retaining ring pliers curved:
• for outer rings 52 mm



(图9)
开口扭力扳手26 mm*: [link](#),
30 mm

(ill. 9)
Torque wrench with open-end spanner
26 mm*: [link](#),
30 mm

1. 非屏蔽/非绝缘版本

1. Unshielded, uninsulated version

分解图 非屏蔽/非绝缘, 90°

Exploded view 90° version

DPR28P-UIS-CLG*

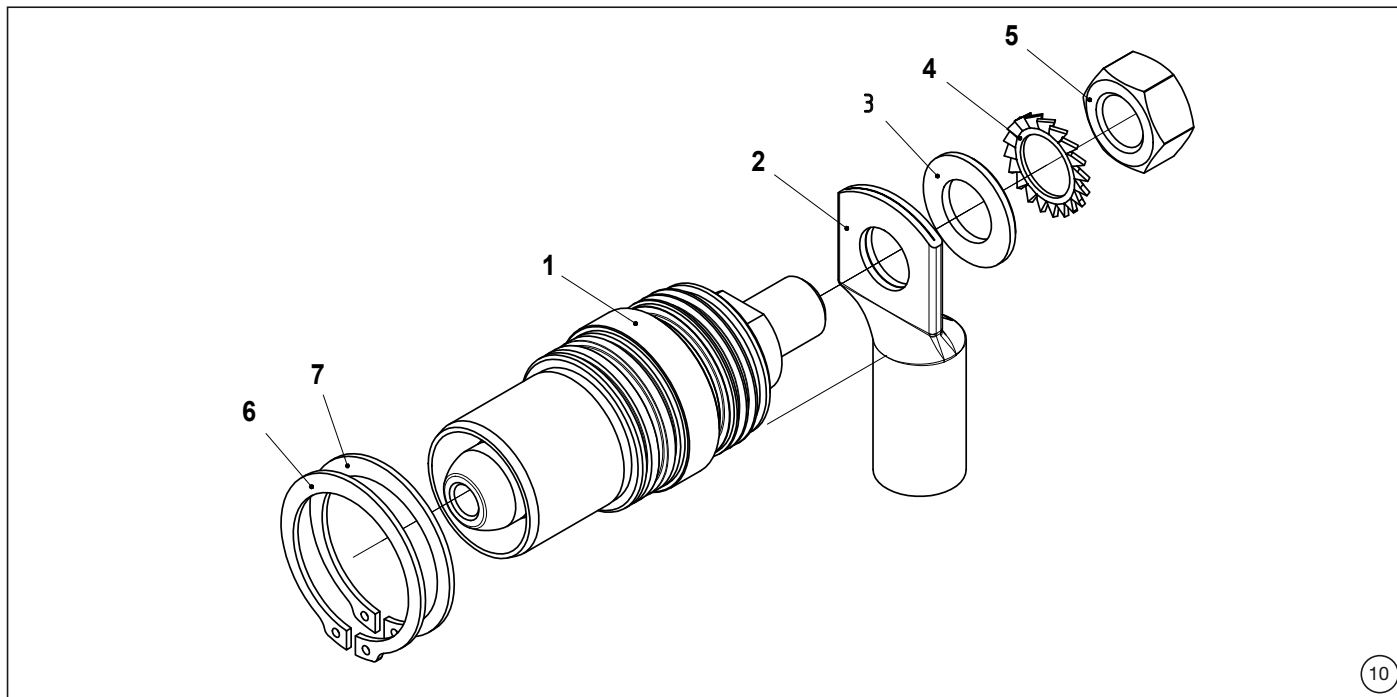
DPR28P-UIS-CLG*

插头和插座端的步骤相同。

Same procedure for pin and socket side.

可能的可连接导线横截面:
DPR28P-UIS-CLG* + DPR28S-UIS-CLG*
120 mm²; 150 mm²; 185 mm²; 240 mm²

Possible connectable conductor cross section at:
DPR28P-UIS-CLG* + DPR28S-UIS-CLG*
120 mm²; 150 mm²; 185 mm²; 240 mm²



序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	电缆接线头 Cable lug
3	垫圈 Washer
4	锯齿锁紧垫圈 Serrated lock washer
5	螺母 Nut
6/7	卡箍 Retaining ring

1. 非屏蔽/非绝缘版本

分解图 非屏蔽/非绝缘, 直型

DPR28P-UIS-CB*

插头和插座端的步骤相同

可能的可连接导线横截面:

DPR28P-UIS-CB* + DPR28S-UIS-CB*

95 mm², 120 mm²; 150 mm²; 185 mm²; 240 mm²

1. Unshielded, uninsulated version

Exploded view straight version

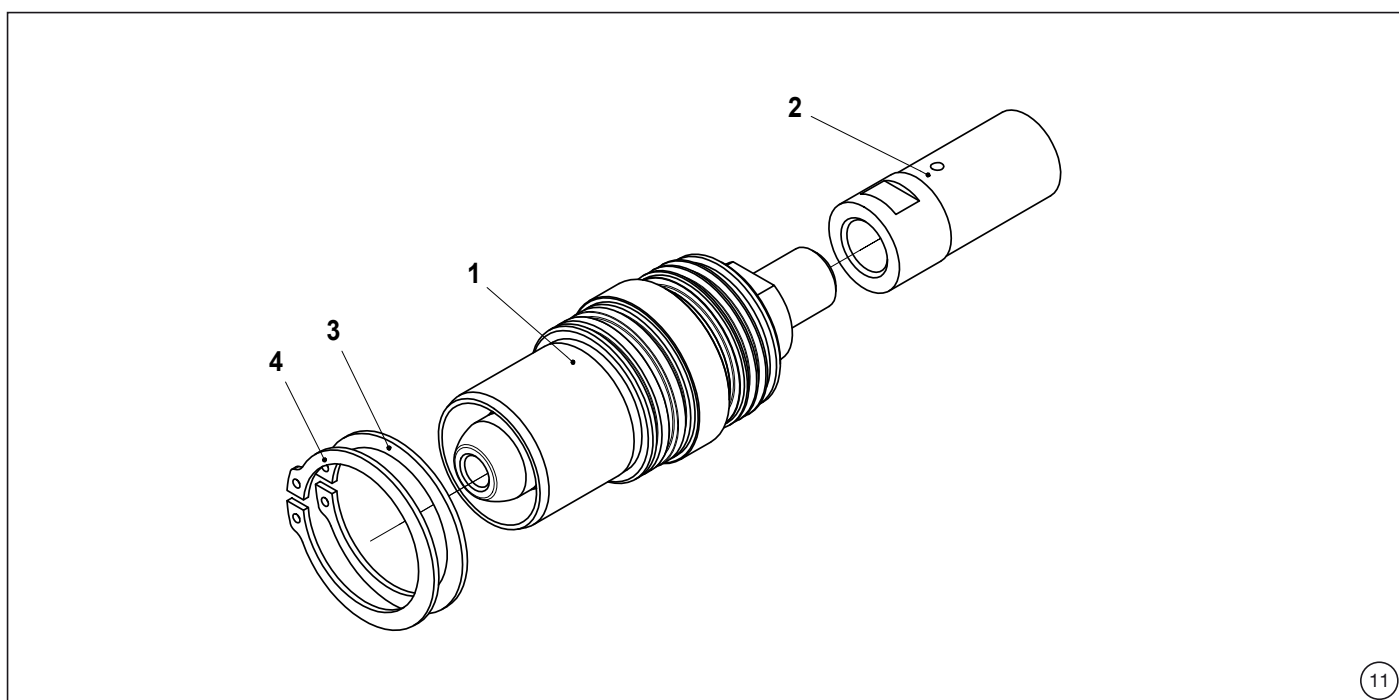
DPR28P-UIS-CB*

Same procedure for pin and socket side

Possible connectable conductor cross section at:

DPR28P-UIS-CB* + DPR28S-UIS-CB*

95 mm², 120 mm²; 150 mm²; 185 mm²; 240 mm²



11

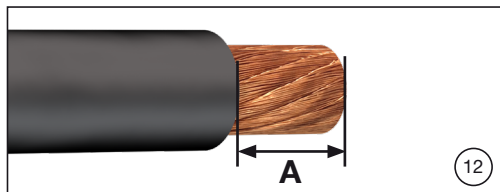
序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	压接头 Crimp connection
3/4	卡箍 Retaining rings

1. 非屏蔽/非绝缘版本

1. Unshielded, uninsulated version

电缆准备

Cable preparation



(图12)

将电缆剥皮到长度A
 $A = 38 (+2) \text{ mm}$ (185/240 mm²)
 $A = 28 (+2) \text{ mm}$ (95/120/150 mm²)

(ill. 12)

Strip cable to length A
 $A = 38 (+2) \text{ mm}$ at 185/240 mm²
 $A = 28 (+2) \text{ mm}$ at 95/120/150 mm²

⚠ 注意

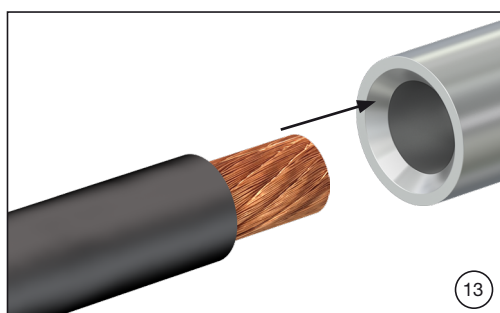
剥皮后, 检查导线的氧化状态。氧化电缆会导致接插件过热。

⚠ Attention

After being stripped, check the oxidation state of the lead. Oxidized cables can lead to excessive contact heating.

压接

Crimping



(图13)

将带有所有绞线的电缆插入压接接头/电缆接线头, 直至其停止。

(ill. 13)

Insert cable with all strands in the crimp connection/cable lug until it stops.

i 注意事项:

电缆接线头和压接接头仅适用于5类和6类导线。不得使用横截面偏差超过10%的电缆。

i Note:

The cable lugs and crimp connections are intended only for class 5 and 6 leads. Thinned out leads with more than 10 % cross-section deviation must not be used.

用压接钳压接压接接头/电缆接线头。
 请参阅: [链接](#)

Crimp the crimp connection/cable lug with crimping pliers.
 See: [link](#)



(图14)

最大 150 mm², 需要 1 次压接。压接可以与边缘齐平, 最大为 5 mm。



(ill. 14)

Up to 150 mm², 1 crimp necessary. The crimping can be flush from the edge up to a maximum of 5 mm.

(图 15)

从 185 mm² 起, 需要 2 次压接。
 第一次压接可以最大设置到窥视孔。该孔必须位于两个标记之间。
 第二次压接必须旋转 90°, 并尽可能与压接接头/电缆接线头齐平。

(ill. 15)

From 185 mm², 2 crimps necessary.
 The first crimping can be set maximum up to the sight hole. The hole must be located between the two marks.
 The second crimping must be turned 90° and positioned as flush as possible with the crimp connection/cable lug.

1. 非屏蔽/非绝缘版本

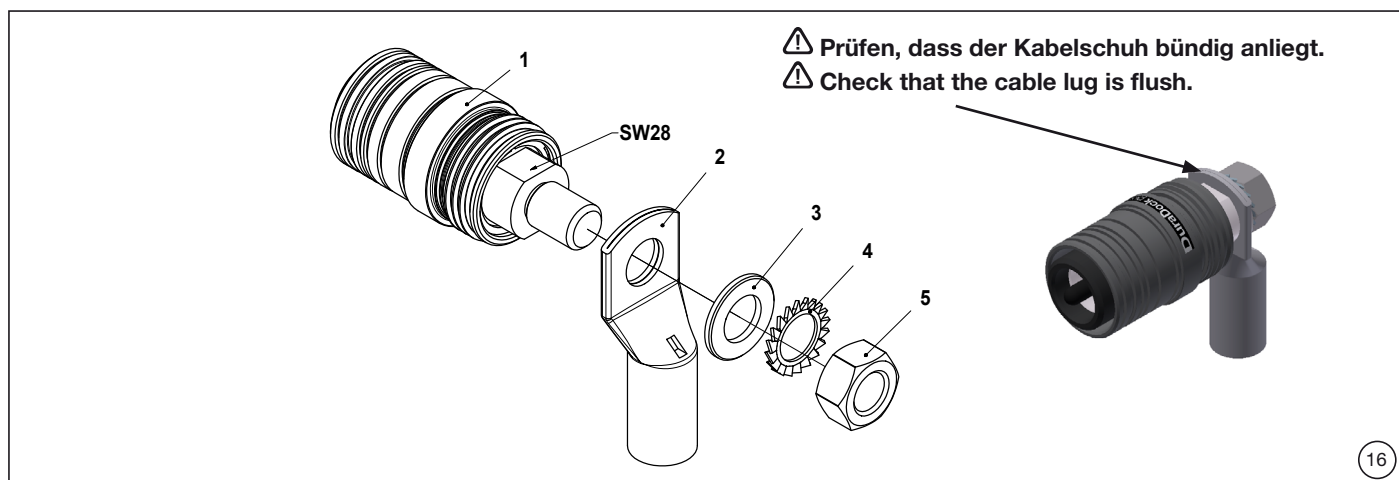
1. Unshielded, uninsulated version

螺纹安装接插件, 90°

Screwing of contact, 90° version

插头和插座端的步骤相同

Same procedure for pin and socket side



(图16)

- 按此顺序将电缆接线头 2、垫圈 3、锯齿锁紧垫圈 4 推到接插件 1 上。
- 用 80 N·m 的扭矩拧紧螺母 5。
- 在位置 SW28 处用 28 mm 开口扳手锁紧接插件 1。

(ill. 16)

- Push cable lug 2, washer 3, serrated lock washer 4 onto contact 1 in this order.
- Tighten nut 5 with 80 N m.
- Lock contact 1 with open-end wrench 28 mm at position SW28.

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	带压接电缆的电缆接线头 Cable lug with cable crimped on
3	垫圈 Washer
4	锯齿锁紧垫圈 Serrated lock washer
5	螺母 Nut

1. 非屏蔽/非绝缘版本

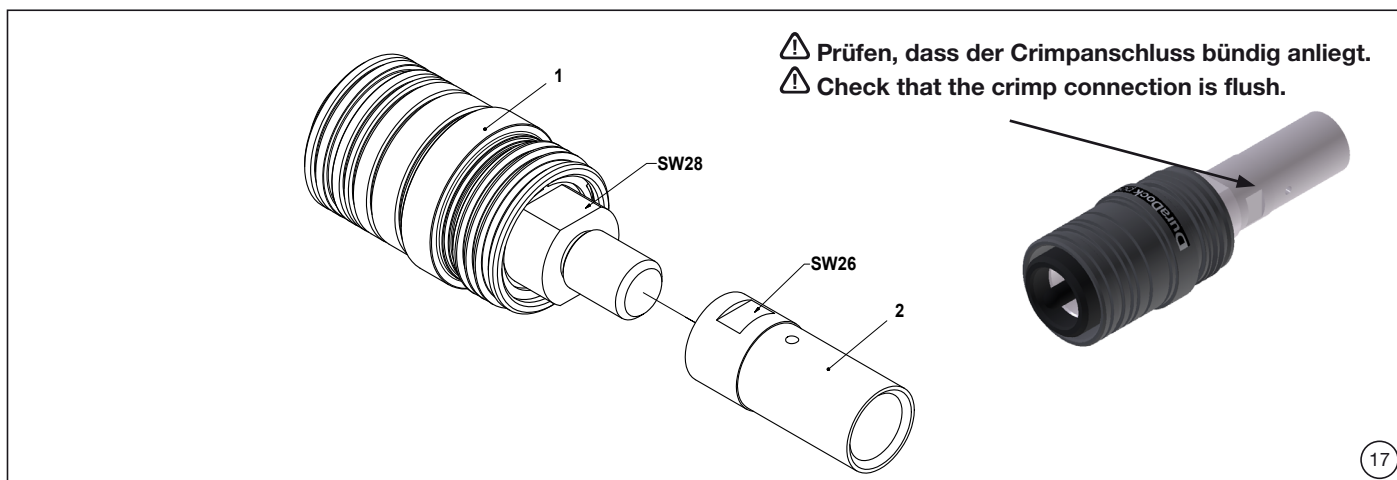
1. Unshielded, uninsulated version

螺纹安装接插件, 直型

Screwing of contact, straight version

插头和插座端的步骤相同

Same procedure for pin and socket side



(图17)

- 在位置 **SW28** 处用 28 mm 开口扳手锁紧接插件 **1**。
- 用 80 N·m 的扭矩将位置 **SW26** 处的压接接头 **2** 拧紧到接插件。

(ill. 17)

- Lock contact **1** with open-end wrench 28 mm at position **SW28**.
- Tighten the crimp connection **2** at position **SW26** with 80 N m to the contact .

序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	带压接电缆的压接接头 Crimp connection with crimped cable

1. 非屏蔽/非绝缘版本

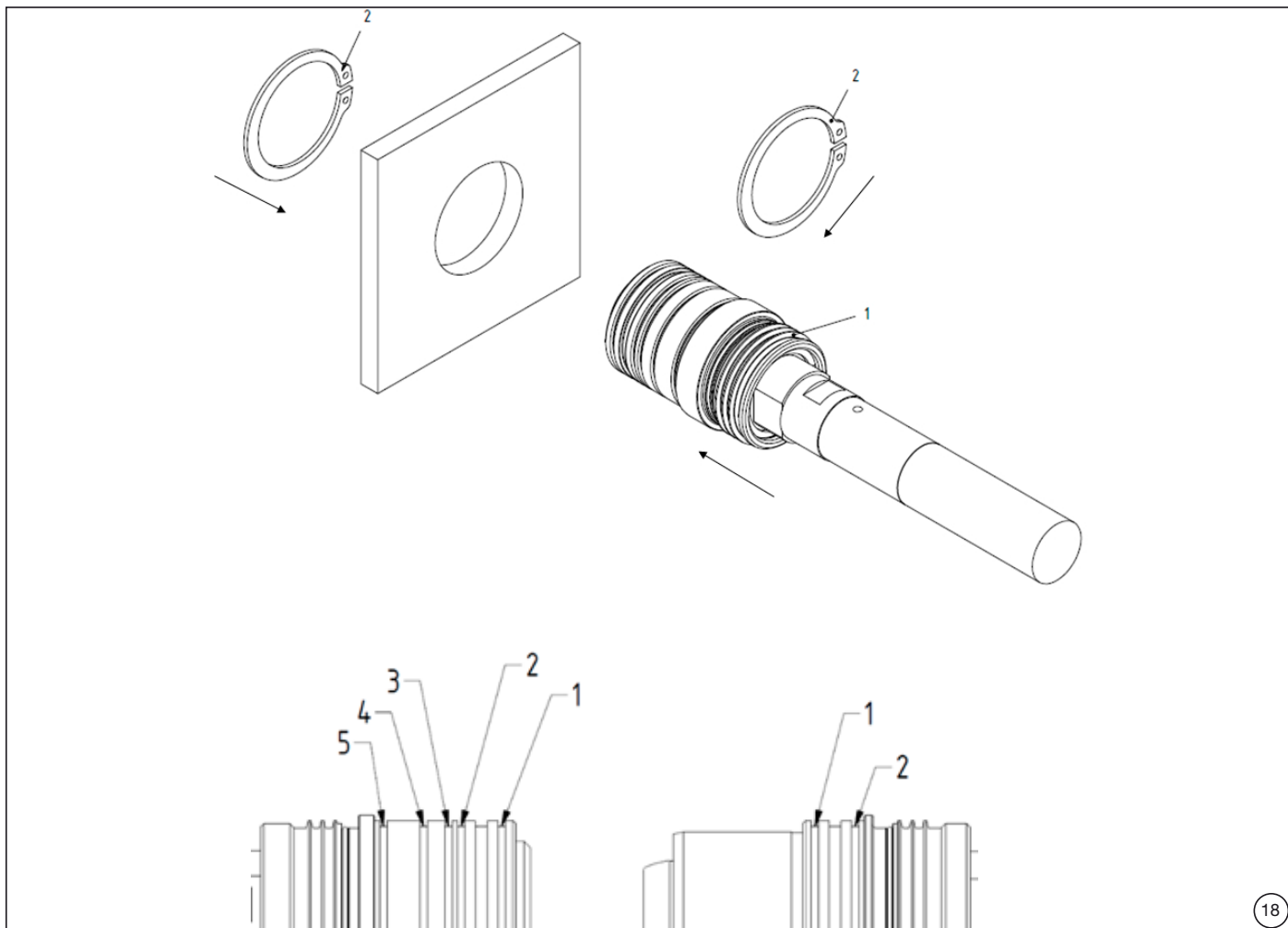
1. Unshielded, uninsulated version

将连接器固定到对接板上

Securing the connector to the docking plate

(对于所有导线横截面都相同)

(is the same for all conductor cross sections)



18

面板/Panel		凹槽/Grooves	
距离/Distance	厚度/Thickness	插座端/Socket side	插头端/Pin side
13	10	1 - 2	1 - 2
13	14	1 - 3	1
37	10	4 - 5	1 - 2
37	14	4	1

(图18)

连接器 1 通过一个或两个卡箍 2 连接到板上。

根据表选择所需的板厚度、板间距、卡箍数量和合适的凹槽

(ill. 18)

The connector 1 is attached to the plate with one or two retaining rings 2.

Select the desired plate thickness, plate spacing, number of retaining rings, and suitable grooves according to the table

板厚度1/板间距/板厚度2
Plate thickness 1/Plate distance/Plate thickness 2
(mm)

10/13/10	10/13/14	10/37/10	10/37/14	14/13/10	14/13/14	14/37/10	14/37/14
✓	✓	✓	✓	✓	✓	✓	✓

板厚度与板间距可以任意组合。

Any plate thickness and distance can be combined.

2. 非屏蔽/绝缘版本

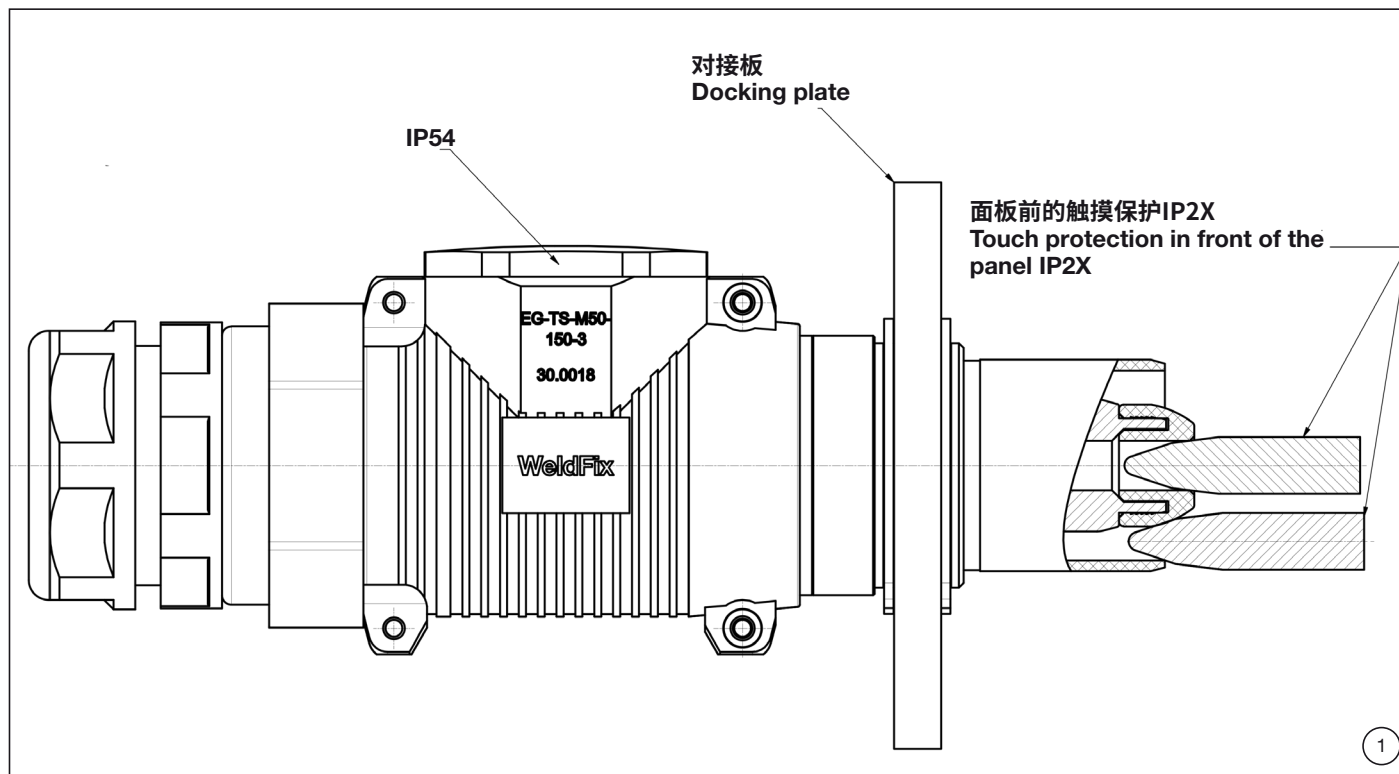
2. Unshielded, insulated version

触摸保护

DuraDock 电源在对接板前面受 IP2X 保护, 适用于所有类型 (无绝缘、带绝缘、屏蔽) 的 IP2X 触摸保护。

Touch protection

The DuraDock power is IP2X protected in front of the docking plate for all variants (without insulation, with insulation, shielded) with touch protection.



2. 非屏蔽/绝缘版本

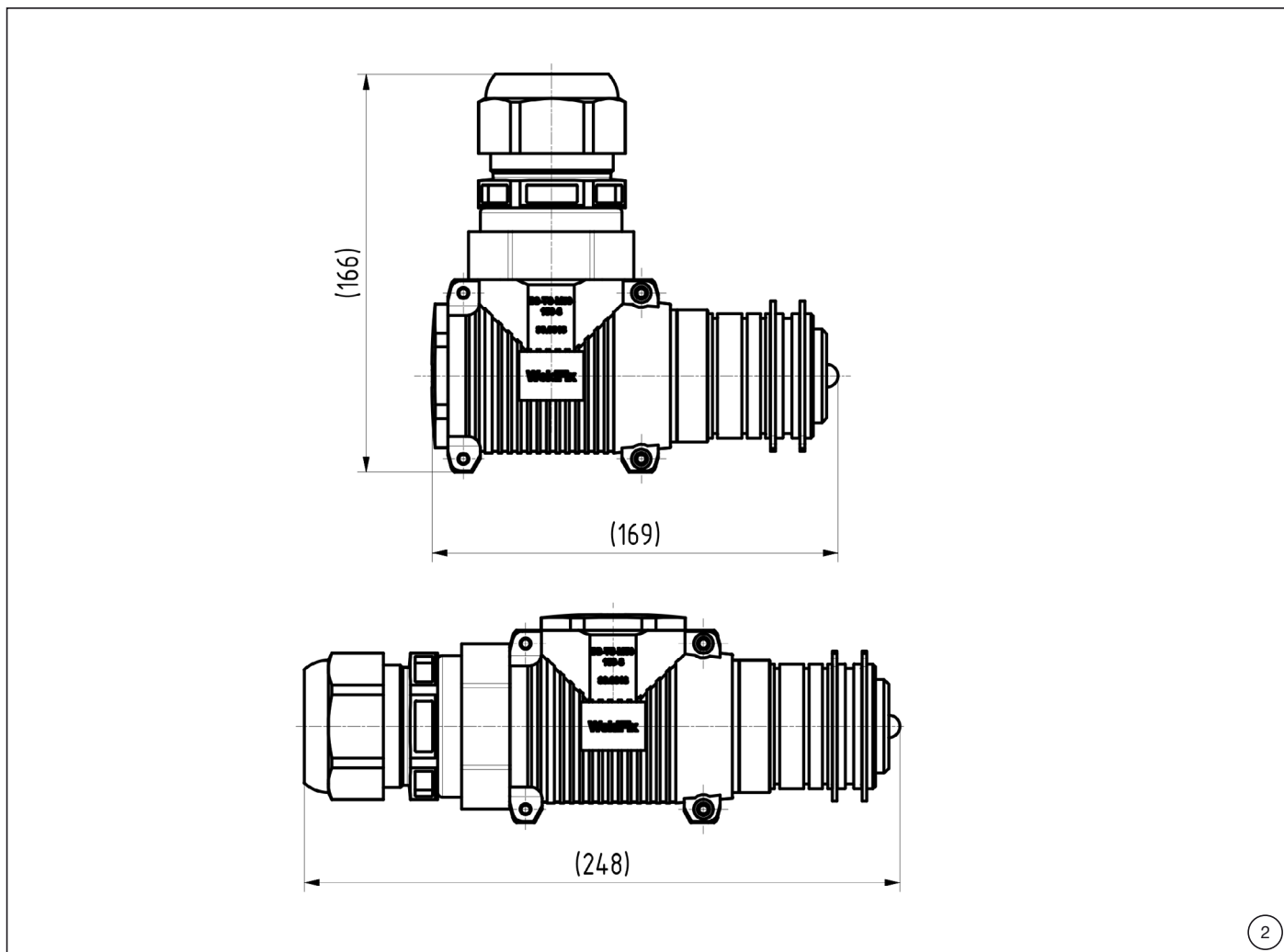
2. Unshielded, insulated version

电气数据

Electrical data

插头和插座端的步骤相同。

Same procedure for pin and socket side.



2

额定电压 U	Rated voltage U	AC 1000 V/DC 1500 V
额定电流 I	Rated current I	550 A
过压类别	Overvoltage category	CAT III
污染等级	Pollution degree	3
绝缘类别	Insulation group	I
最大环境温度	Max. ambient temperature	40 °C ¹⁾
允许操作温度	Permissible operating temperature	100 °C

¹⁾ 在较高温度下, 根据降额图降低电流。/At higher temperatures, current rating is reduced according to the derating diagram.

2. 非屏蔽/绝缘版本

电缆夹

(不在交付货物之内)

为防止损坏 DuraDock power 28 的电源电缆, 需要额外的电缆夹。

这种电缆夹必须根据装置的可用空间提供, 不在史陶比尔交付货物之内。

图3 仅为示意图。

⚠ 注意

额外的电缆夹是绝对必要的, 这样就不会对电缆施加扭转、拉扭、张力或压力。

2. Unshielded, insulated version

Cable clamping

(not included in scope of delivery)

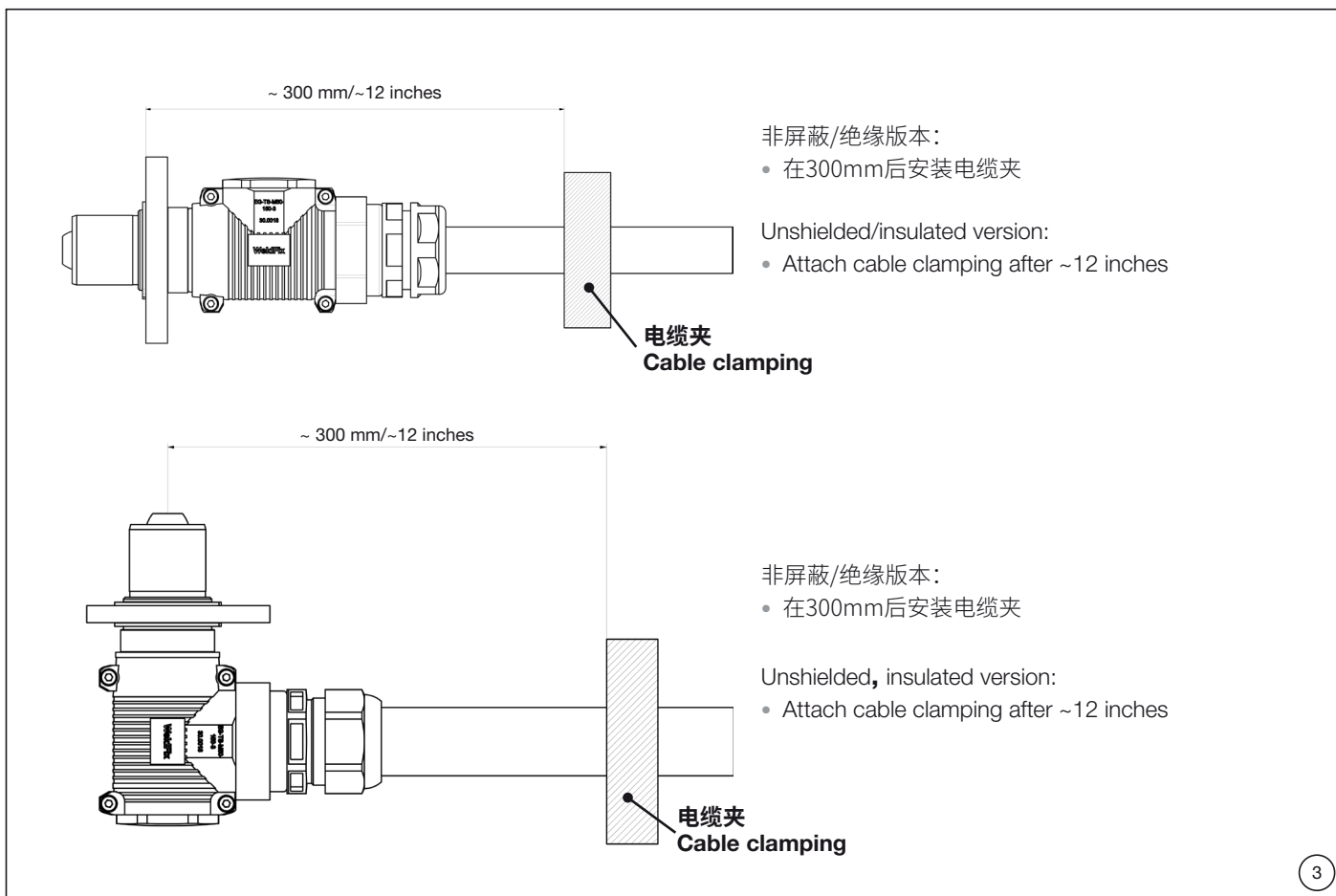
To prevent damage to the supply cable of the DuraDock power 28, an additional cable clamping is required.

This cable clamping must be provided in accordance with the available space of the installation and is not included in the Stäubli scope of delivery.

ill. 3 shows only a schematic representation.

⚠ Attention

An additional cable clamping is absolutely necessary so that no torsion, tension or pressure forces are exerted on the cables.



2. 非屏蔽/绝缘版本

2. Unshielded, insulated version

板厚度和间距

对接板的厚度必须为 10 mm 或 14 mm。
对接板之间的距离必须为 13 mm 或 37 mm。
(可选) 也有可能为板厚度 10 mm 和 14 mm 的组合。

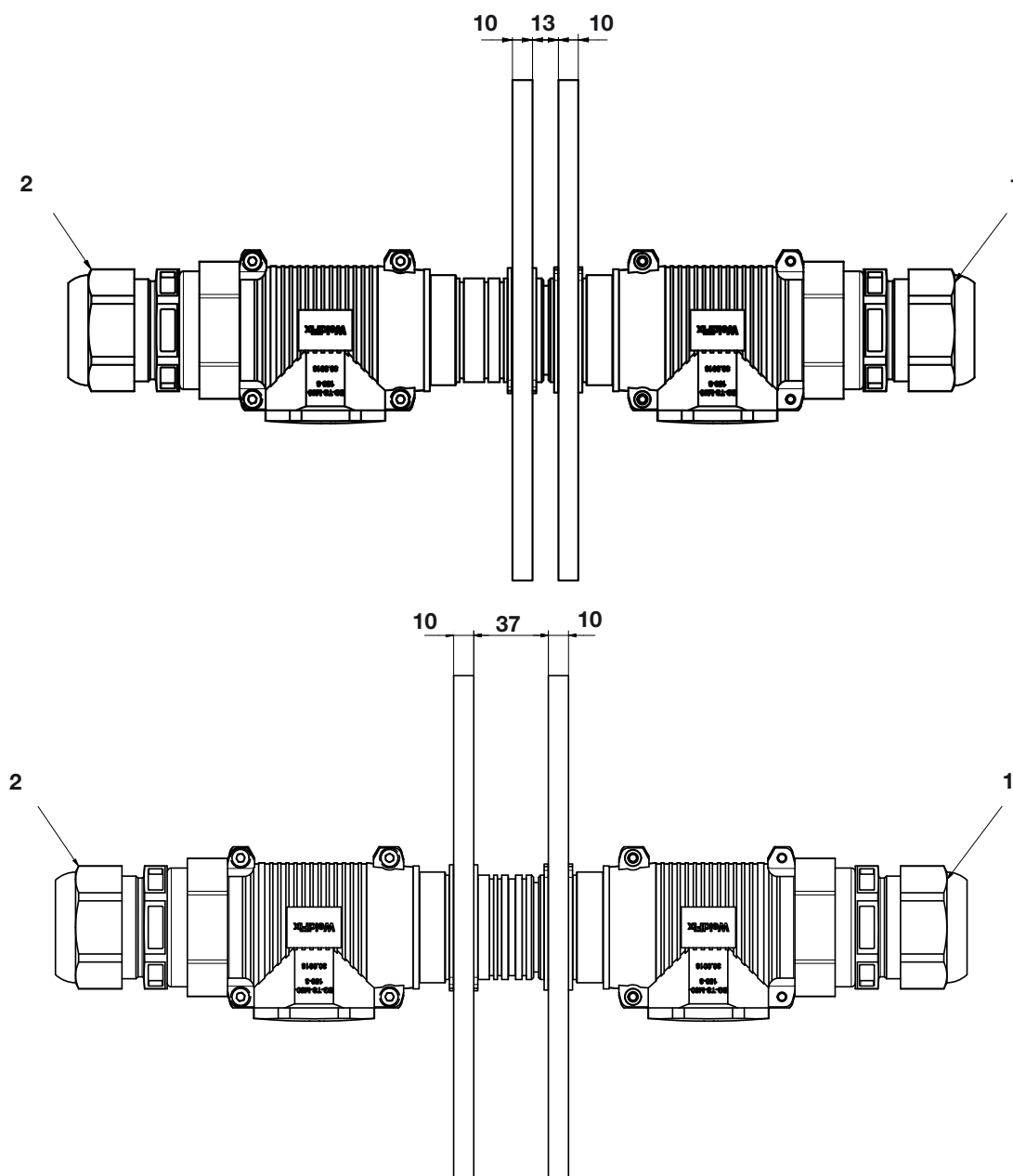
Plate thickness and spacing

The thickness of the docking plate must either be 10 mm or 14 mm.
The distance between the docking plates must be either 13 mm or 37 mm.
Optionally, the combination of the plate thickness 10 mm and 14 mm is possible.

例如:

Example:

Pos. 1: DPR28P-ISD-CLG*M50
Pos. 2: DRP28S-ISD-CLG*M50



2. 非屏蔽/绝缘版本

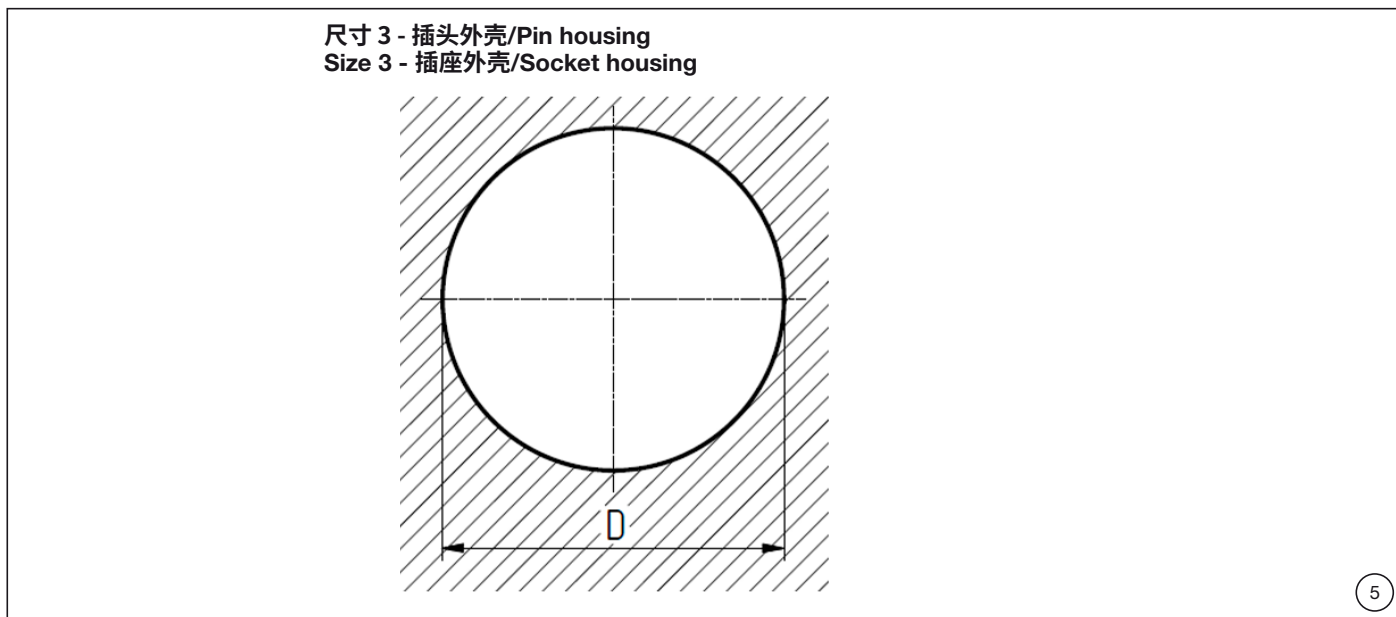
2. Unshielded, insulated version

对接系统中的安装

Installation in docking plate

钻孔图

Drilling plan



注意事项:

外壳不得用于机械校准。为了确保安全应用和正确对准面板，必须使用稳定的导轨和对准元件。

Note:

The housing must not be used for mechanical alignment. Stable guides and alignment elements must be used for safe application and correct alignment of the plates.

对接板尺寸 (固定支架) Size of docking plate (mounting bracket)	D ^{E8}	应用 Application
尺寸 3/Size 3 外壳/Housing	Ø 52	DPR28P-ISD-CLG*M50 DRP28S-ISD-CLG*M50 DRP28P-ISD-CB*M50 DRP28S-ISD-CB*M50

2. 非屏蔽/绝缘版本

2. Unshielded, insulated version



所需工具

(图6)
压接钳
建议:
柯劳克 EK60VPFTCFM

Tools required

(ill. 6)
Crimping pliers
Recommendation:
Klaue EK60VPFTCFM

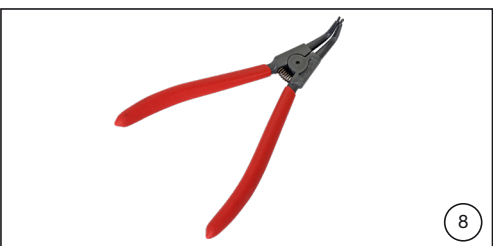
i 提示:
操作说明, [链接](#)

i Hinweis:
Operating instructions, [link](#)



(图7)
28 mm, 60 mm 开口扳手

(ill. 7)
Open-end spanner 28 mm, 60 mm



(图8)
弯曲的卡箍钳:
• 用于 52 mm, 72 mm 的外圈

(ill. 8)
Retaining ring pliers curved:
• for outer rings 52 mm and 72 mm



(图9)
开口扭力扳手
26 mm*: [link](#),
30 mm,
55 mm: [link](#),
60 mm: [link](#)

(ill. 9)
Torque wrench with open-end spanner
26 mm*: [link](#),
30 mm,
55 mm: [link](#),
60 mm: [link](#)



(图10)
插入式扭力扳手
4 mm (M5 螺丝) 和 8 mm.

(ill. 10)
Torque wrench with insert
4 mm (M5 screw) and 8 mm.

2. 非屏蔽/绝缘版本

2. Unshielded, insulated version

分解图 非屏蔽/绝缘, 90°

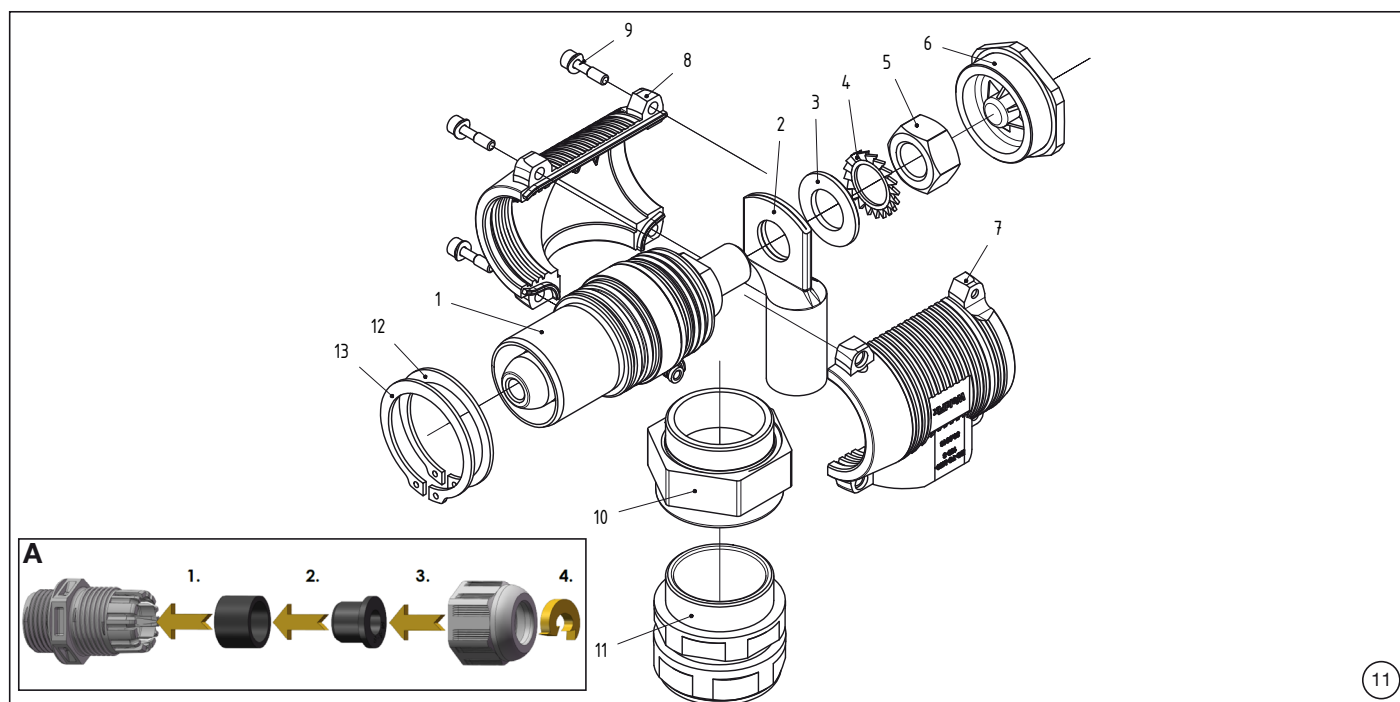
Exploded view 90° version

DPR28P-ISD-CLG*
插头和插座端的步骤相同

DPR28P-ISD-CLG*
Same procedure for pin and socket side

可能的可连接导线横截面：
DPR28P-ISD-CLG*M50 + DPR28S-ISD-CLG*M50
120 mm²; 150 mm²; 185 mm²; 240 mm²

Possible connectable conductor cross section at:
DPR28P-ISD-CLG*M50 + DPR28S-ISD-CLG*M50
120 mm²; 150 mm²; 185 mm²; 240 mm²



11

序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	电缆接线头 Cable lug
3	垫圈 Washer
4	锯齿锁紧垫圈 Serrated lock washer
5	螺母 Nut
6	保护帽 Protective cover
7	半壳 1 Housing half 1
8	半壳 2 Housing half 2
9	六角头螺钉 Allen head screw
10	中间件(预安装) Intermediate piece (pre-assembled)
11	电缆格兰头, 见图A Cable gland, see ill. A
12, 13	卡箍 Retaining rings

2. 非屏蔽/绝缘版本

2. Unshielded, insulated version

分解图 非屏蔽/绝缘, 直型

Exploded view straight version

DPR28P-ISD-CB*

DPR28P-ISD-CB*

插头和插座端的步骤相同

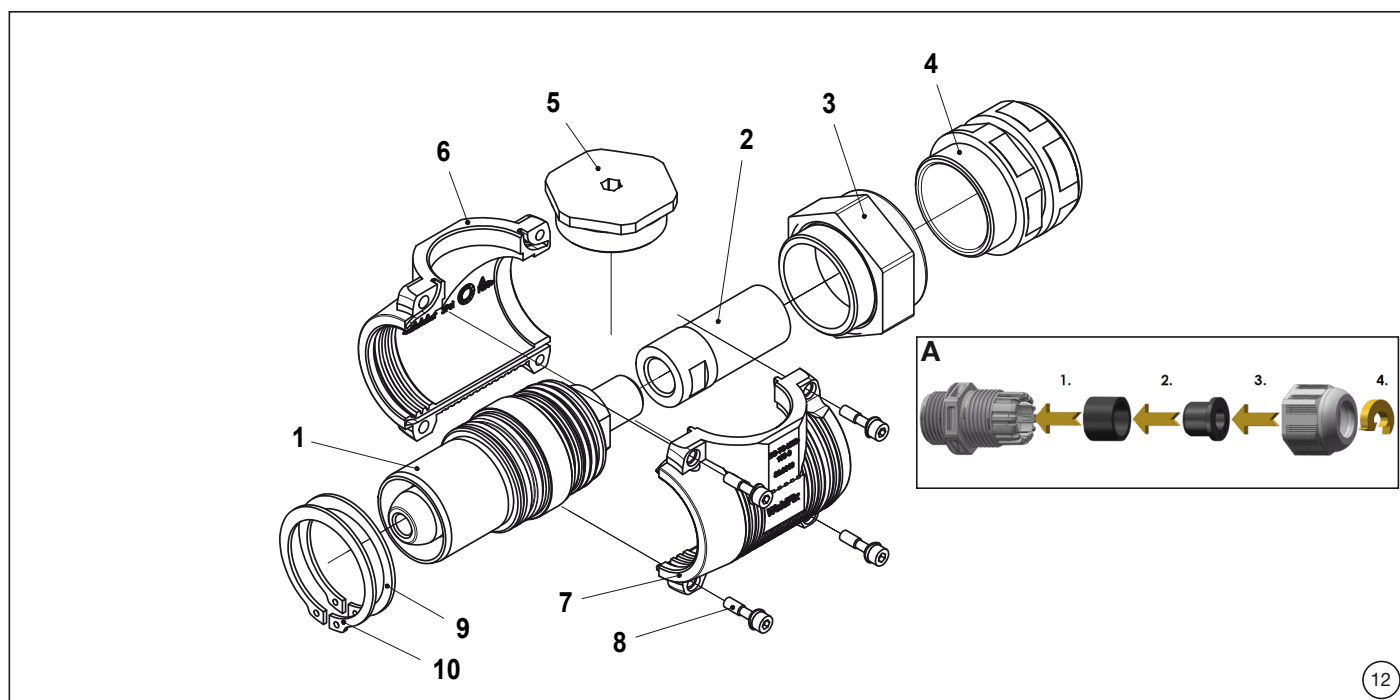
Same procedure for pin and socket side

可能的可连接导线横截面:

DPR28P-ISD-CB*M50 + DPR28S-ISD-CB*M50
95 mm²; 120 mm²; 150 mm²; 185 mm²; 240 mm²

Possible connectable conductor cross section at:

DPR28P-ISD-CB*M50 + DPR28S-ISD-CB*M50
95 mm²; 120 mm²; 150 mm²; 185 mm²; 240 mm²



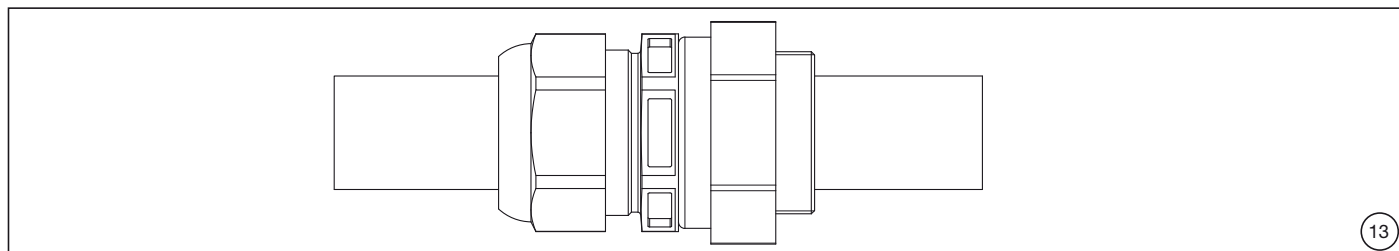
序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	压接头 Crimp connection
3	中间件 Intermediate piece
4	电缆格兰头, 见图A Cable gland, see ill. A
5	封盖 Closing cover
6	半壳 1 Housing half 1
7	半壳 2 Housing half 2
8	六角头螺钉 Allen head screw
9, 10	卡箍 Retaining rings

2. 非屏蔽/绝缘版本

2. Unshielded, insulated version

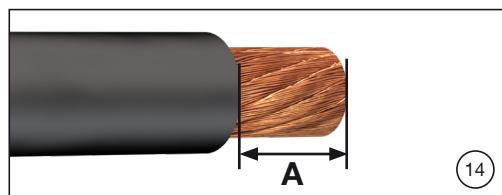
电缆准备

Cable preparation



(图 13) 将电缆格兰头和中间件滑到电缆上

(ill. 13) Slide cable gland and intermediate piece onto the cable



(图 14) 将电缆剥皮到长度A
A = 38 (+2) mm (185/240 mm²)
A = 28 (+2) mm (95/120/150 mm²)

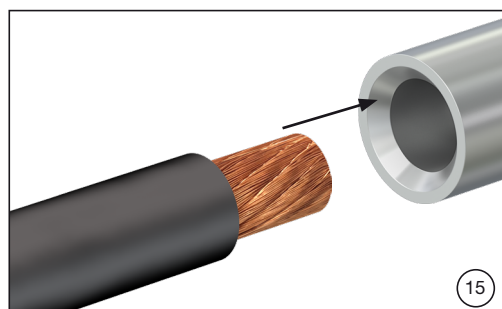
(ill. 14) Strip cable to length A
A = 38 (+2) mm at 185/240 mm²
A = 28 (+2) mm at 95/120/150 mm²

注意
剥皮后, 检查导线的氧化状态。氧化电缆会导致接插件过热。

Attention
After being stripped, check the oxidation state of the lead. Oxidized cables can lead to excessive contact heating.

压接

Crimping



(图 15) 将带有所有绞线的电缆插入压接接头/电缆接线头, 直至其停止。

(ill. 15) Insert cable with all strands in the crimp connection/cable lug until it stops.

注意事项:
电缆接线头和压接接头仅适用于 5 类和 6 类导线。
不得使用横截面偏差超过 10% 的电缆。

Note:
The cable lugs and crimp connections are intended only for class 5 and 6 leads.
Thinned out leads with more than 10 % cross-sectionnal deviation must not be used.

用压接钳压接压接接头/电缆接线头。
请参阅: [链接](#)

Crimp the crimp connection/cable lug with crimping pliers.
See: [link](#)



(图 16) 最大 150 mm², 需要 1 次压接。压接可以与边缘齐平, 最大为 5 mm。



(ill. 16) Up to 150 mm², 1 crimp necessary. The crimping can be flush from the edge up to a maximum of 5 mm.

(图 17) 从 185 mm² 起, 需要 2 次压接。
第一次压接可以最大设置到窥视孔。该孔必须位于两个标记之间。
第二次压接必须旋转 90°, 并尽可能与压接接头/电缆接线头齐平。

(ill. 17) From 185 mm², 2 crimps necessary.
The first crimping can be set maximum up to the sight hole. The hole must be located between the two marks.
The second crimping must be turned 90° and positioned as flush as possible with the crimp connection/cable lug.

2. 非屏蔽/绝缘版本

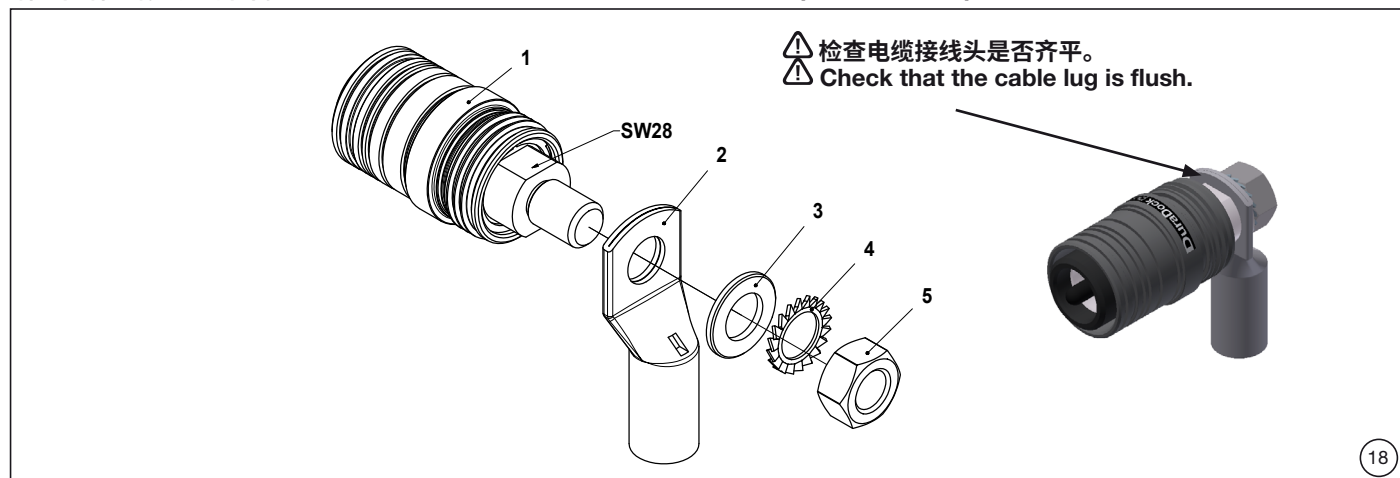
螺纹安装接插件, 90°

插头和插座端的步骤相同

2. Unshielded, insulated version

Screwing of contact, 90° version

Same procedure for pin and socket side



(图18)

- 按此顺序将电缆接线头 **2**、垫圈 **3**、锯齿锁紧垫圈 **4** 推到接插件 **1** 上。
- 用 80 N·m 的扭矩拧紧螺母 **5**。
- 在位置 **SW28** 处用 28 mm 开口扳手锁紧接插件 **1**。

(ill. 18)

- Push cable lug **2**, washer **3**, serrated lock washer **4** onto contact **1** in this order.
- Tighten nut **5** with 80 N m.
- Lock contact **1** with open-end wrench 28 mm at position **SW28**.

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	带压接电缆的电缆接线头 Cable lug with cable crimped on
3	垫圈 Washer
4	锯齿锁紧垫圈 Serrated lock washer
5	螺母 Nut

2. 非屏蔽/绝缘版本

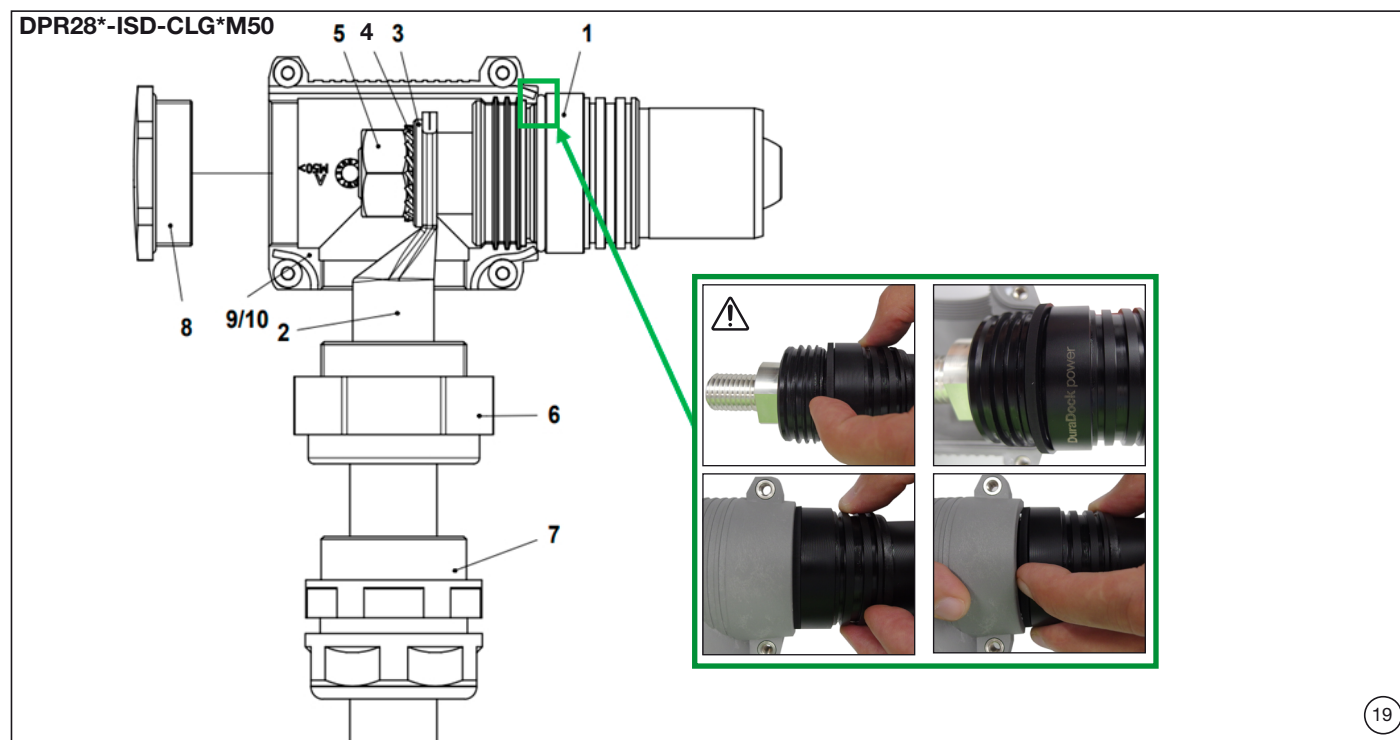
2. Unshielded, insulated version

外壳安装, 90°

Assembly step, 90°

插头和插座端的步骤相同

Same procedure for pin and socket side



(图19)

(ill. 19)

- 首先将接插件 **1** 插入半壳 **9**, 然后插入半壳 **10**。
⚠ 注意密封件的位置。
- 将中间件**6**和封盖**8**预装到外壳**9+10**上, 直至O形圈与外壳接触(未拧紧状态)。
- 使用4颗螺丝将半壳**9**和**10**拧紧 (5 N m)。
- 将封盖**8**安装到外壳**9+10**上 (5 N m)。
- 将中间件 **6** 拧到外壳 **9 + 10** 上 (14 N m)。
- 将电缆格兰头 **7** 拧到中间件 **6** 上 (14 N m)。拧紧联管螺母 (10 N m)。

- Insert contact **1** first in housing half **9** then in housing half **10**.
⚠ Pay attention to the position of the seal.
- Pre-assemble intermediate piece **6** and closing cover **8** on housing **9 + 10** until the O-rings are in contact with the housing (do not tighten with torque yet).
- Screw together both housing halves **9 + 10** with four screws (5 N m).
- Mount closing cover **8** on housing **9 + 10** (5 N m).
- Screw intermediate piece **6** onto housing **9 + 10** (14 N m).
- Screw cable gland **7** onto intermediate piece **6** (14 N m). Screw union nut (10 N m).

6周后重新紧固!

Retighten after 6 weeks!

序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	带压接电缆的电缆接线头 Cable lug with crimped cable
3	垫圈 Washer
4	锯齿锁紧垫圈 Serrated lock washer
5	螺母 Nut
6	中间件(预安装) Intermediate piece (pre-assembled)
7	电缆格兰头 Cable gland
8	封盖 Closing cover
9	半壳 1 Housing half 1
10	半壳 2 Housing half 2

2. 非屏蔽/绝缘版本

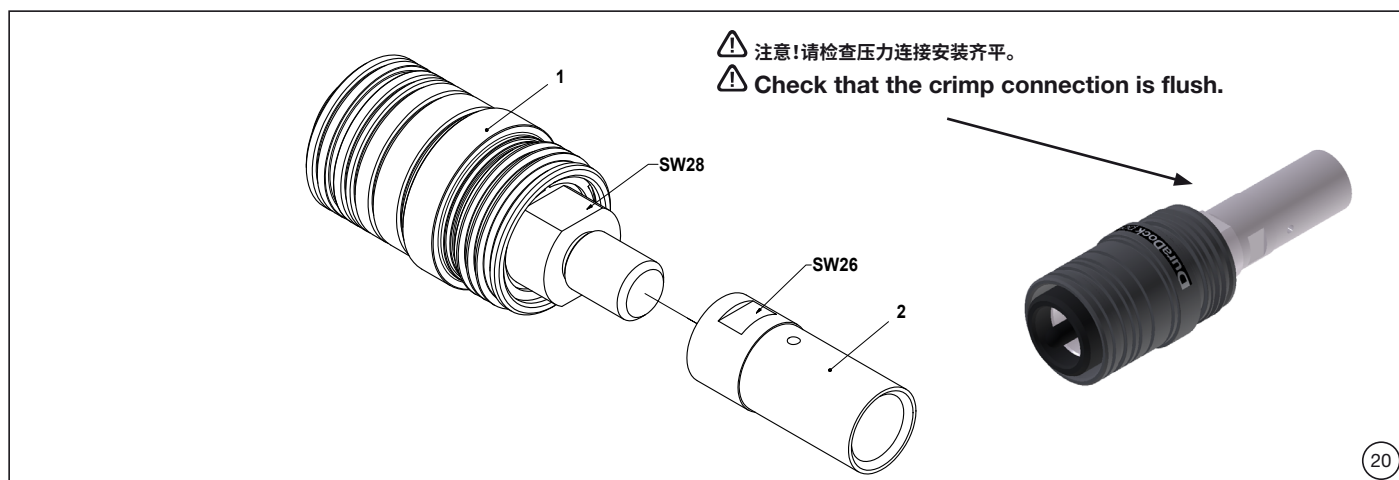
2. Unshielded, insulated version

螺纹安装接插件, 直型

Screwing of contact, straight version

插头和插座端的步骤相同

Same procedure for pin and socket side



(图20)

- 在位置 **SW28** 处用 28 mm 开口扳手锁紧接插件 **1**。
- 用 80 N·m 的扭矩将位置 **SW26** 处的压接头 **2** 拧紧到接插件。

(ill. 20)

- Lock contact **1** with open-end wrench 28 mm at position **SW28**.
- Tighten the crimp connection **2** at position **SW26** with 80 N m to the contact .

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	带压接电缆的压接头 Crimp connection with crimped cable

2. 非屏蔽/绝缘版本

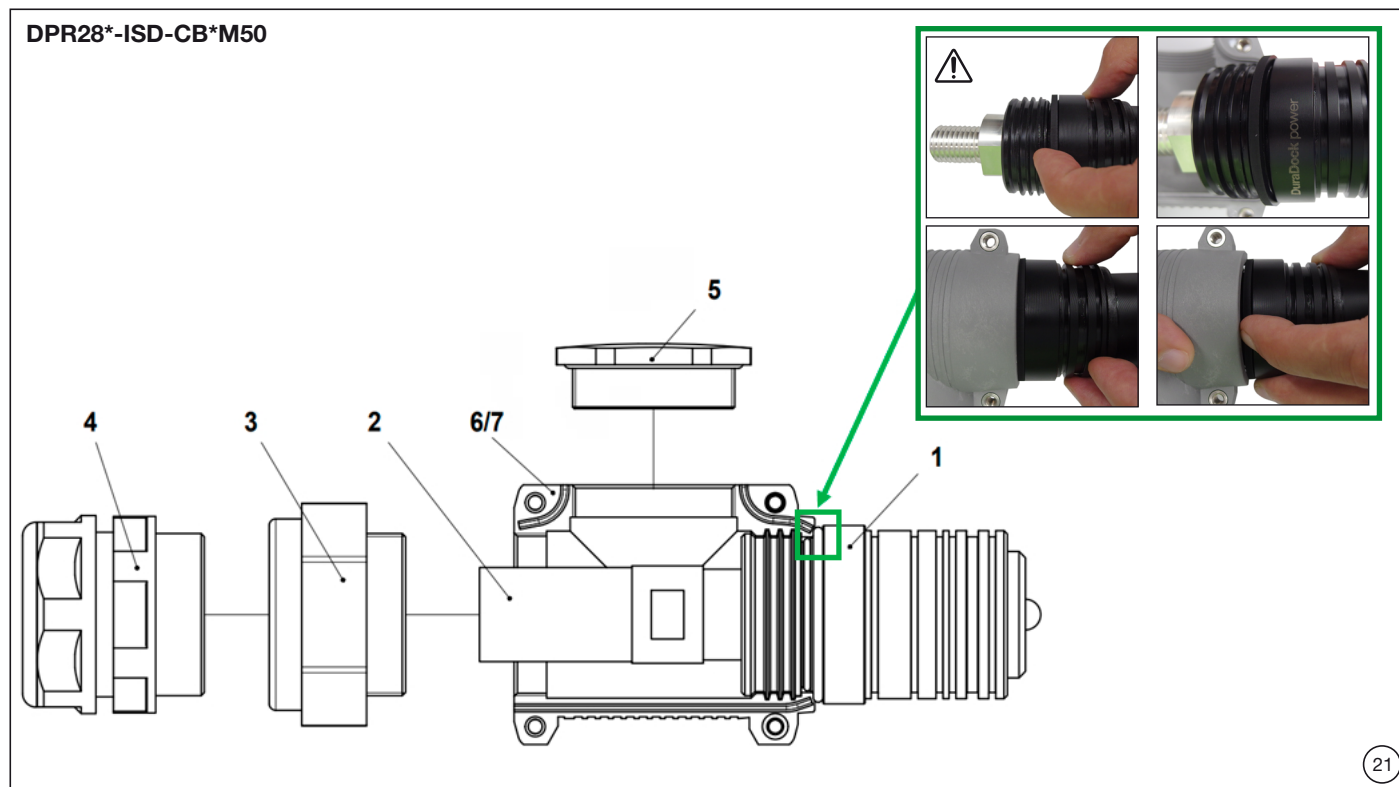
2. Unshielded, insulated version

外壳装配, 直型

Assembly of the housing, straight version

插头和插座端的步骤相同

Same procedure for pin and socket side



(图21)

- 首先将接插件 **1** 插入半壳 **6** 然后插入半壳 **7**。
⚠ 注意密封件的位置。
- 将中间件**3**和封盖**5**预装到外壳**6+7**上, 直至O形圈与外壳接触(未拧紧状态)。
- 使用4颗螺丝将半壳**6**和**7**拧紧 (5 N m)。
- 将封盖**5**安装到外壳**6+7**上 (5 N m)。
- 将中间件 **3** 拧到外壳 **6 + 7** 上 (14 N m)。
- 将电缆格兰头 **4** 拧到中间件 **3** 上 (14 N m)。拧紧联管螺母 (10 N m)。

6周后重新紧固!

(ill. 21)

- Insert contact **1** first in housing half **6** then in housing half **7**.
⚠ Pay attention to the position of the seal.
- Pre-assemble intermediate piece **3** and closing cover **5** on housing **6 + 7** until the O-rings are in contact with the housing (do not tighten with torque yet).
- Screw together both housing halves **6 + 7** with four screws (5 N m).
- Mount closing cover **5** on housing **6 + 7** (5 N m).
- Screw intermediate piece **3** onto housing **6 + 7** (14 N m).
- Screw cable gland **4** onto intermediate piece **3** (14 N m). Screw union nut (10 N m).

Retighten after 6 weeks!

序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	带压接电缆的压接接头 Crimp connection with crimped cable
3	中间件(预安装) Intermediate piece (pre-assembled)
4	电缆格兰头 Cable gland
5	封盖 Closing cover
6	半壳1 Housing half 1
7	半壳2 Housing half 2

2. 非屏蔽/绝缘版本

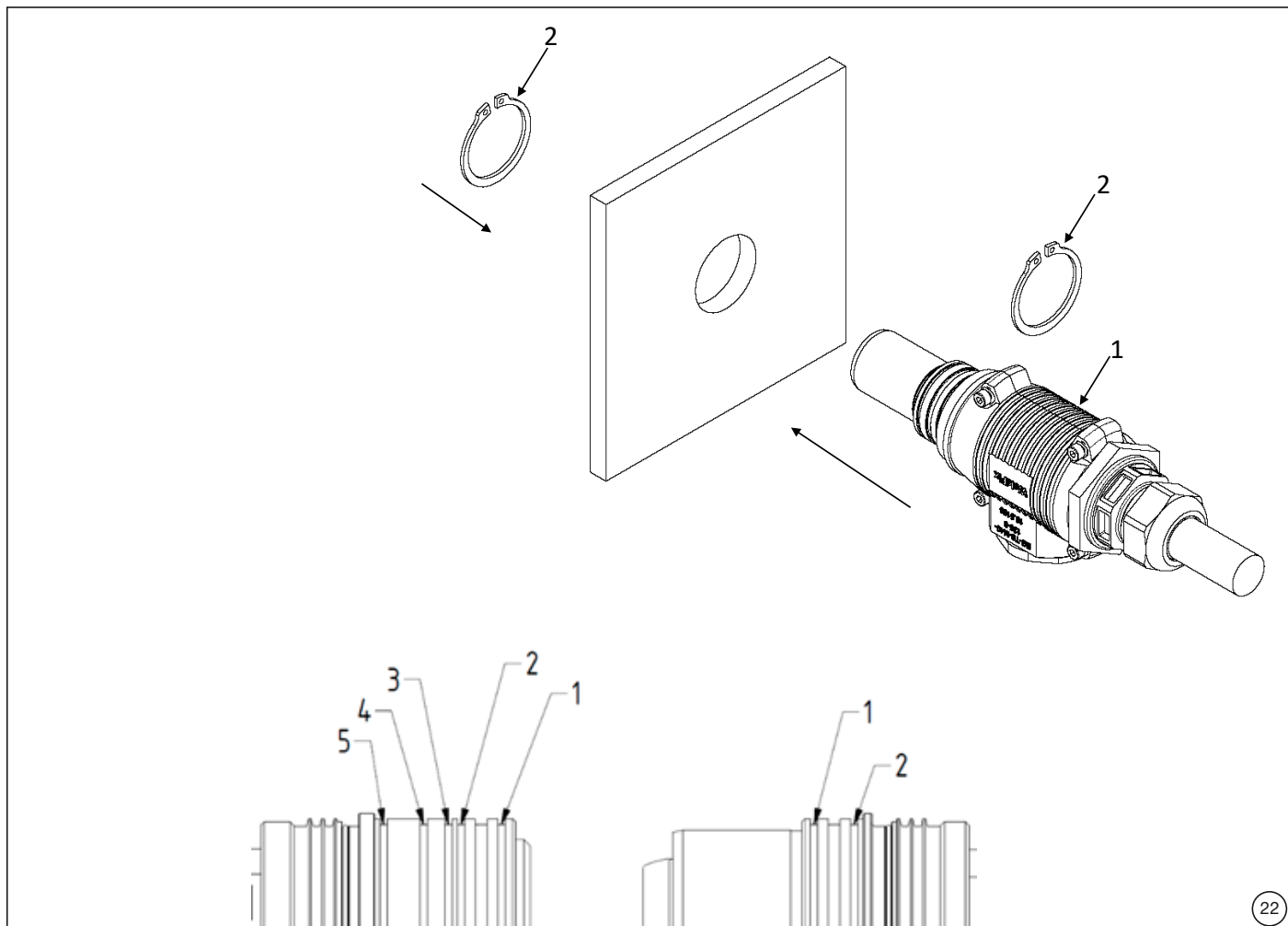
2. Unshielded, insulated version

将连接器固定到对接板上

Securing the connector to the docking plate

(对于所有导线横截面都相同)

(is the same for all conductor cross sections)



面板/Panel		凹槽/Grooves	
距离/Distance	厚度/Thickness	插座端/Socket side	插头端/Pin side
13	10	1 - 2	1 - 2
13	14	1 - 3	1
37	10	4 - 5	1 - 2
37	14	4	1

(图22)

连接器 1 通过一个或两个卡箍 2 连接到板上。

根据表选择所需的板厚度、板间距、卡箍数量和合适的凹槽。

(ill. 22)

The connector 1 is attached to the plate with one or two retaining rings 2.

Select the desired plate thickness, plate spacing, number of retaining rings, and suitable grooves according to the table

板厚度1/板间距/板厚度2
Plate thickness 1/Plate distance/Plate thickness 2
(mm)

10/13/10	10/13/14	10/37/10	10/37/14	14/13/10	14/13/14	14/37/10	14/37/14
✓	✓	✓	✓	✓	✓	✓	✓

板厚度与板间距可以任意组合。

Any plate thickness and distance can be combined.

3. 屏蔽/绝缘版本

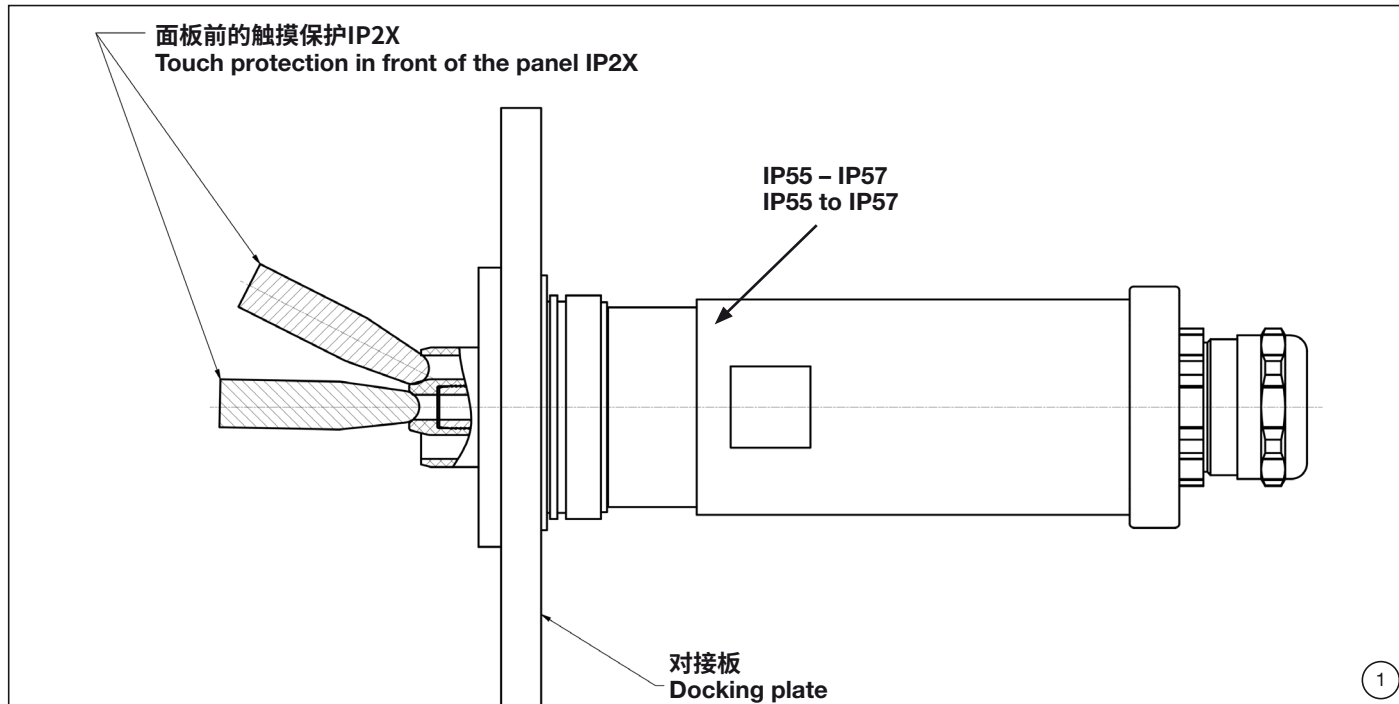
3. Shielded, insulated version

触摸保护

Touch protection

DuraDock 电源在对接板前面受 IP2X 保护, 适用于所有类型 (无绝缘、带绝缘、屏蔽) 的 IP2X 触摸保护。

The DuraDock power is IP2X protected in front of the docking plate for all variants (without insulation, with insulation, shielded) with touch protection.



3. 屏蔽/绝缘版本

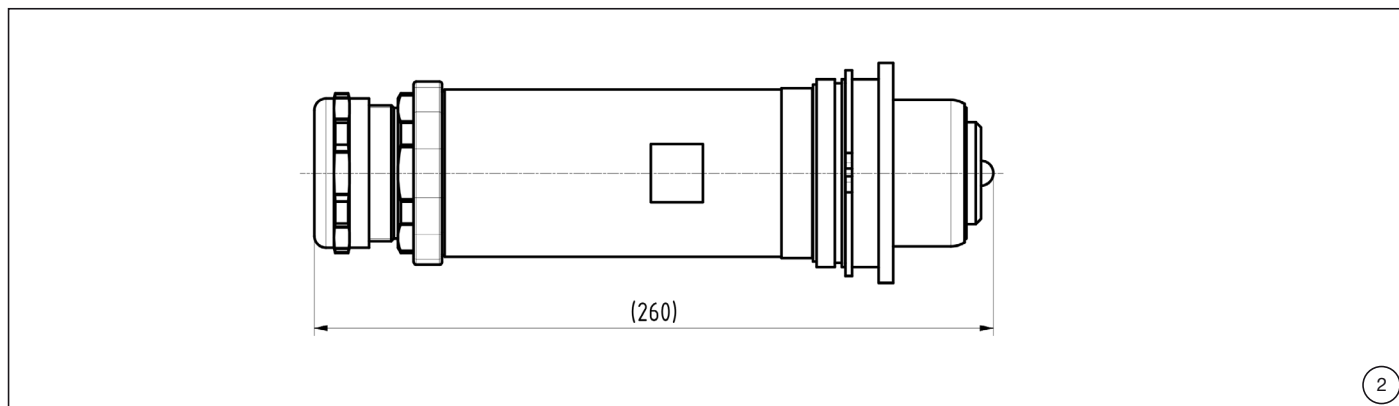
3. Shielded, insulated version

电气数据

Electrical data

插头和插座端的步骤相同。

Same procedure for pin and socket side.



额定电压 U	Rated voltage U	AC 1000 V/DC 1500 V
额定电流 I	Rated current I	550 A
过压类别	Overvoltage category	CAT III
污染等级	Pollution degree	3
绝缘类别	Insulation group	I
最大环境温度	Max. ambient temperature	40 °C ¹⁾
允许操作温度	Permissible operating temperature	100 °C

¹⁾ 在较高温度下, 根据降额图降低电流。/At higher temperatures, current rating is reduced according to the derating diagram.

3. 屏蔽/绝缘版本

电缆夹

(不在交付货物之内)

为防止损坏 DuraDock power 28 的电源电缆, 需要额外的电缆夹。

这种电缆夹必须根据装置的可用空间提供, 不在史陶比尔交付货物之内。

图3 仅为示意图。

⚠ 注意

额外的电缆夹是绝对必要的, 这样就不会对电缆施加扭转、拉扭、张力或压力。

3. Shielded, insulated version

Cable clamping

(not included in scope of delivery)

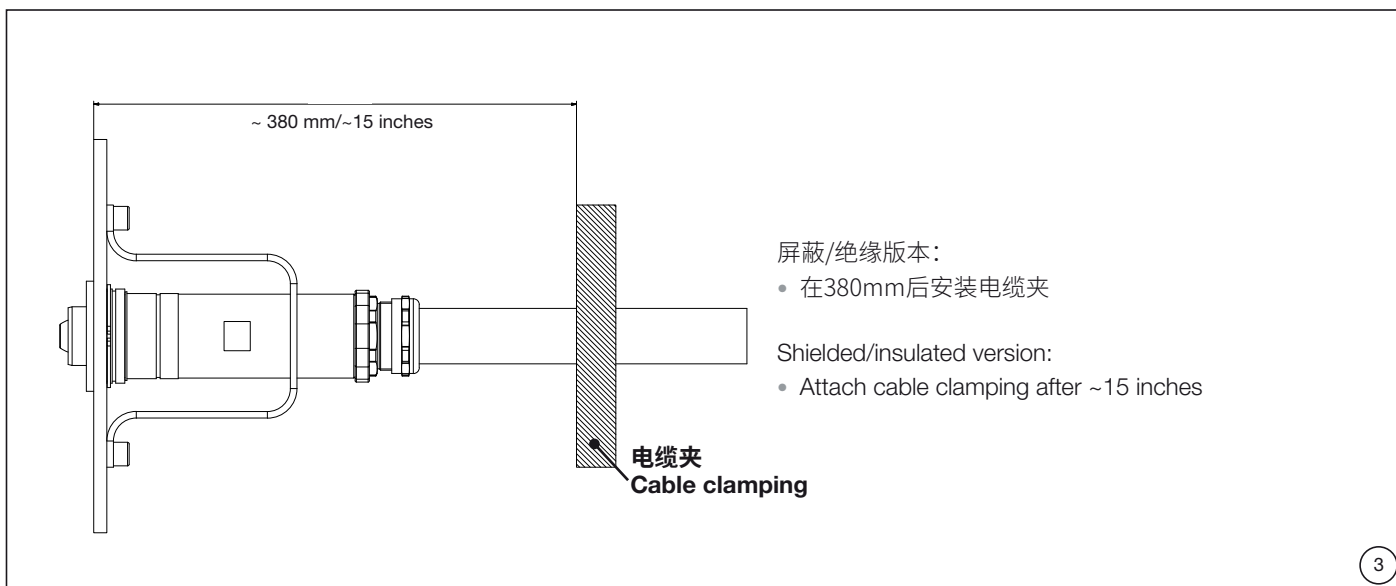
To prevent damage to the supply cable of the DuraDock power 28, an additional cable clamping is required.

This cable clamping must be provided in accordance with the available space of the installation and is not included in the Stäubli scope of delivery.

ill. 3 shows only a schematic representation.

⚠ Attention

An additional cable clamping is absolutely necessary so that no torsion, tension or pressure forces are exerted on the cables.



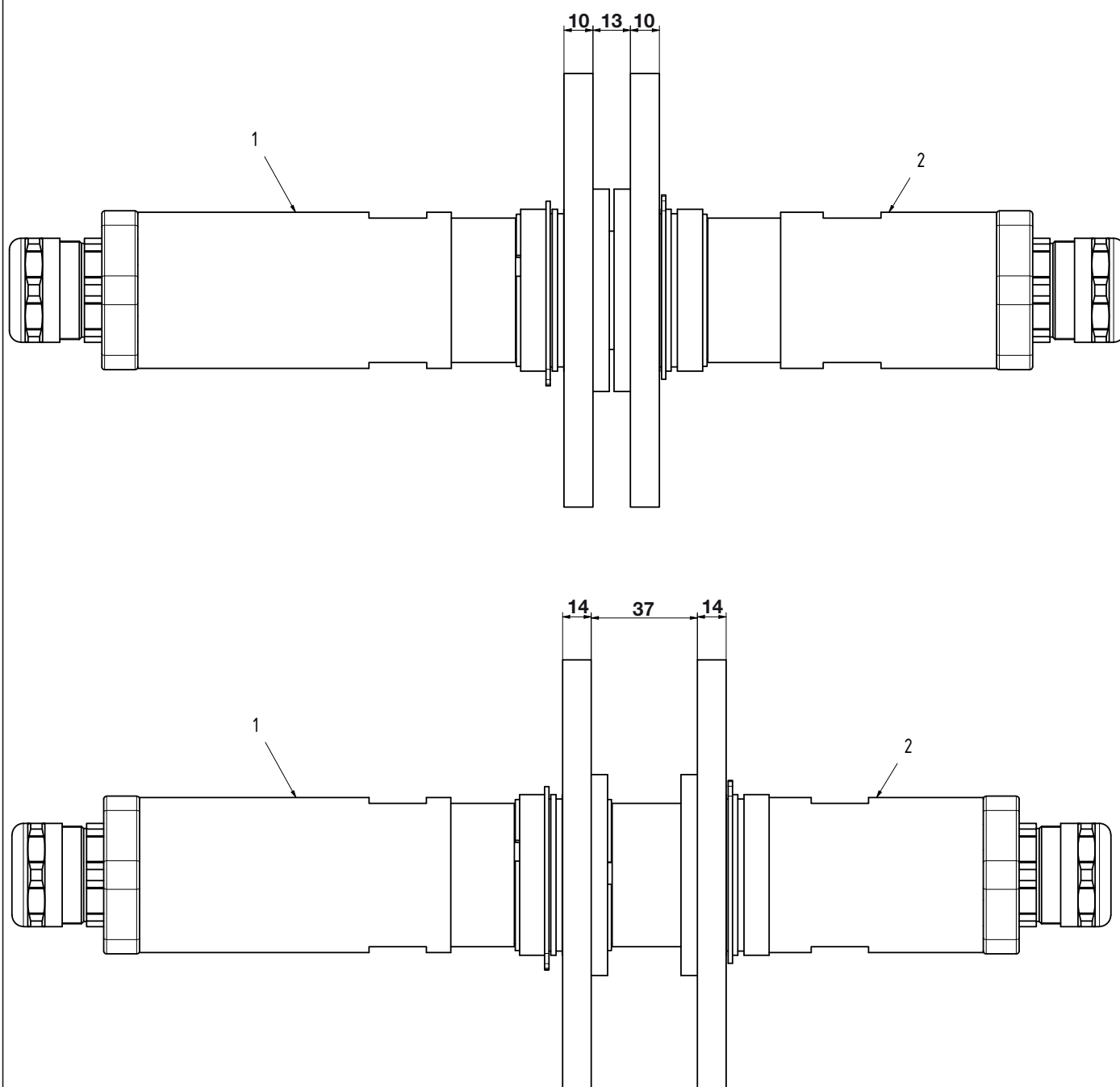
3. 屏蔽/绝缘版本

板厚度和间距

对接板的厚度必须为 10 mm 或 14 mm。
对接板之间的距离必须为 13 mm 或 37 mm。
(可选) 也有可能为板厚度 10 mm 和 14 mm 的组合。

例如：

Pos. 1: DPR28S-SDD-CB*M50
Pos. 2: DPR28P-SDD-CB*M50



3. 屏蔽/绝缘版本

3. Shielded, insulated version

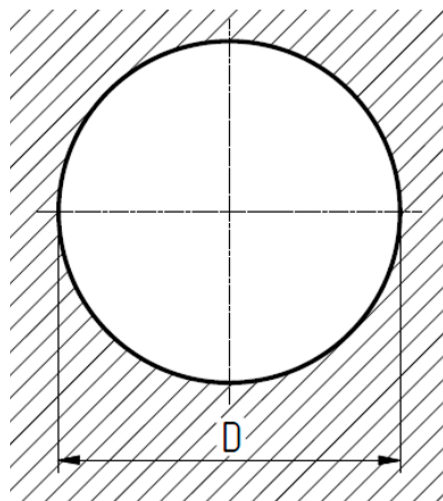
对接系统中的安装

Installation in docking plate

钻孔图

Drilling plan

尺寸 4 - 插头外壳/Pin housing
Size 4 - 插座外壳/Socket housing



5

注意事项:

外壳不得用于机械校准。为了确保安全应用和正确对准面板，必须使用稳定的导轨和对准元件。

Note:

The housing must not be used for mechanical alignment. Stable guides and alignment elements must be used for safe application and correct alignment of the plates.

对接板尺寸 (固定支架) Size of docking plate (mounting bracket)	D ^{E8}	应用 Application
尺寸 4/Size 4 外壳/Housing	Ø 72	DPR28S-SDD-CB*M50 DPR28P-SDD-CB*M50

3. 屏蔽/绝缘版本

3. Shielded, insulated version

所需工具

Tools required



(图6)
压接钳
建议:
柯劳克 EK60VPFTCFM

(ill. 6)
Crimping pliers
Recommendation:
Klauke EK60VPFTCFM

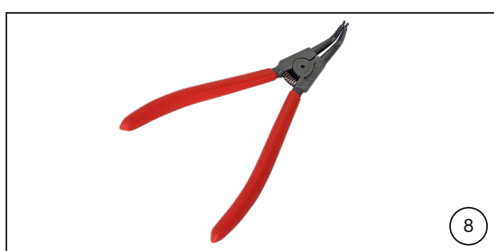
i 提示:
操作说明, [链接](#)

i Hinweis:
Operating instructions, [link](#)



(图7)
28 mm, 60 mm 开口扳手

(ill. 7)
Open-end spanner 28 mm, 60 mm



(图8)
弯曲的卡箍钳:
• 用于 72 mm 的外圈

(ill. 8)
Retaining ring pliers curved:
• for outer rings 72 mm



(图9)
26 mm* 开口扭矩扳手*: [链接](#),

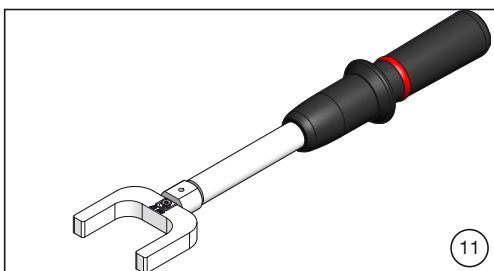
(ill. 9)
Torque wrench with open-end spanner
26 mm*: [link](#)

*26 mm: max. 8 mm



(图10)
热风枪, 最小功率 1500W

(ill. 10)
Hot air blower min. 1500 W



(图11)
带插入件/压接嵌块的扭矩扳手 57 mm, 订货号 18.0551 和 65 mm, 订货号 18.0550。

(ill. 11)
Torque wrench with insert wrench
57 mm, order No. 18.0551 and 65 mm,
order No. 18.0550.

3. 屏蔽/绝缘版本

3. Shielded, insulated version

分解图直型

Exploded view straight version

DPR28P-UIS-CB*

DPR28P-UIS-CB*

插头和插座端的步骤相同

Same procedure for pin and socket side

可能的可连接导线横截面:

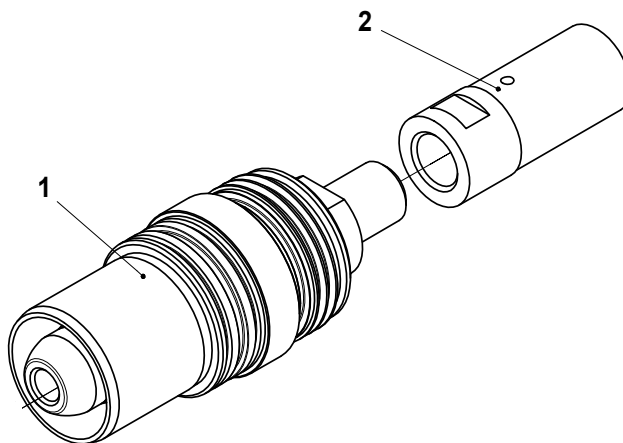
DPR28P-UIS-CB* + DPR28S-UIS-CB*

95 mm², 120 mm²; 150 mm²; 185 mm²; 240 mm²

Possible connectable conductor cross section at:

DPR28P-UIS-CB* + DPR28S-UIS-CB*

95 mm², 120 mm²; 150 mm²; 185 mm²; 240 mm²



12

序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	压接头 Crimp connection

3. 屏蔽/绝缘版本

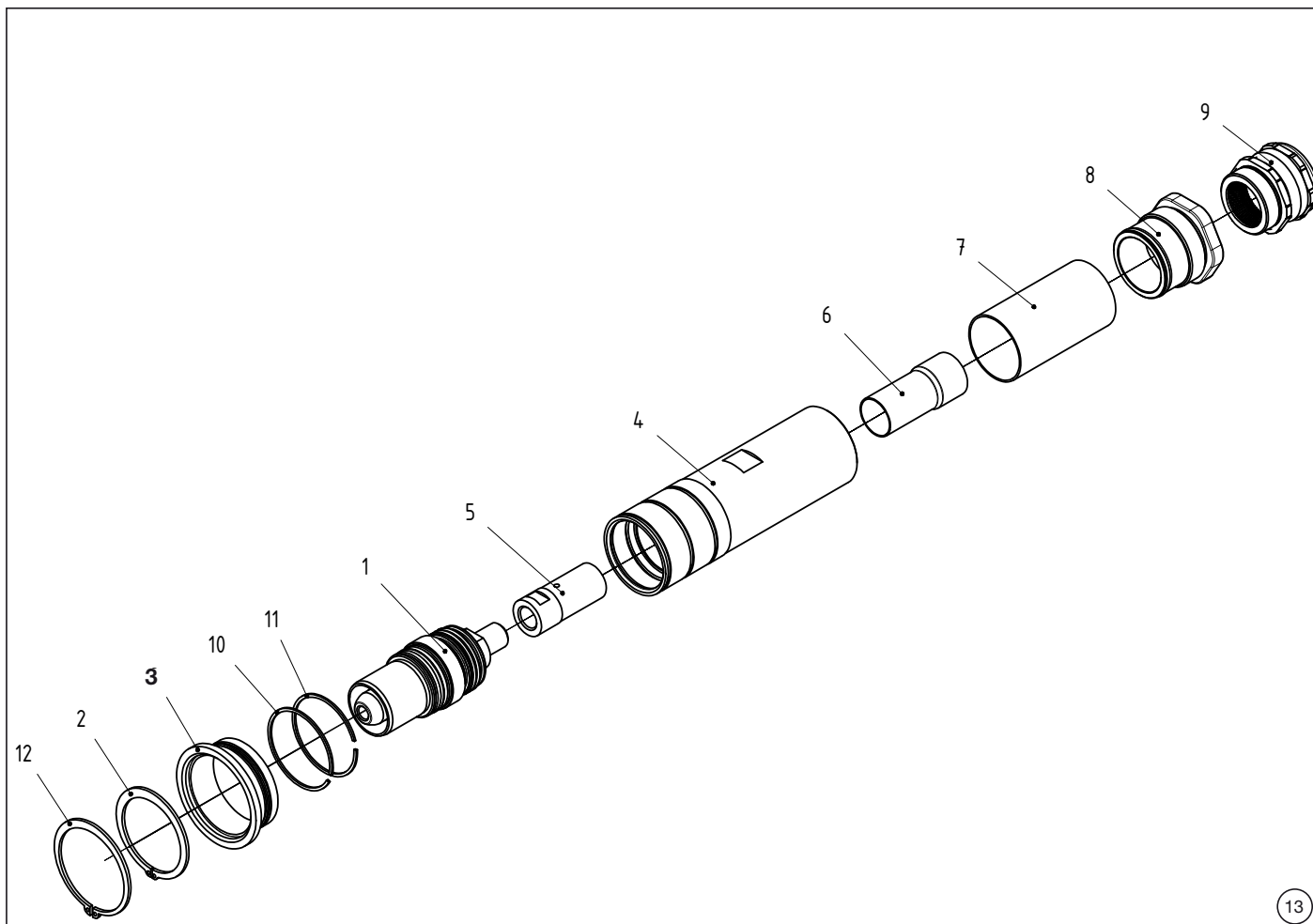
3. Shielded, insulated version

分解图直型

Exploded view straight version

DPR28P-SDD-CB*
插头和插座端的步骤相同

DPR28P-SDD-CB*
Same procedure for pin and socket side



13

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2, 12	卡箍 Retaining ring
3	绝缘层 Insulation
4	屏蔽套管 Shielding sleeve
5	压接接头 Crimp connection
6	热缩管 Form shroud
7	垫片套筒 Spacer sleeve
8	适配器 (预组装) Adapter (pre-assembled)
9	电缆格兰头 Cable gland
10, 11,	卡环 Snap rings

3. 屏蔽/绝缘版本

3. Shielded, insulated version

安装步骤

DPR28P-SDD-CB*M50 和 DPR28S-SDD-CB*M50

插头和插座端的步骤相同

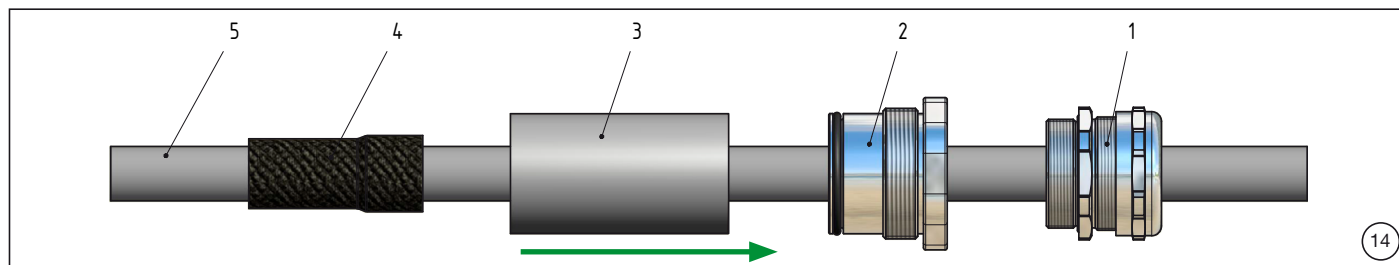
电缆准备

Assembly steps

DPR28P-SDD-CB*M50 and DPR28S-SDD-CB*M50

Same procedure for pin and socket side

Cable preparation



(图14) 压接前, 按此顺序将 4 个部件拉到电缆 5 上。

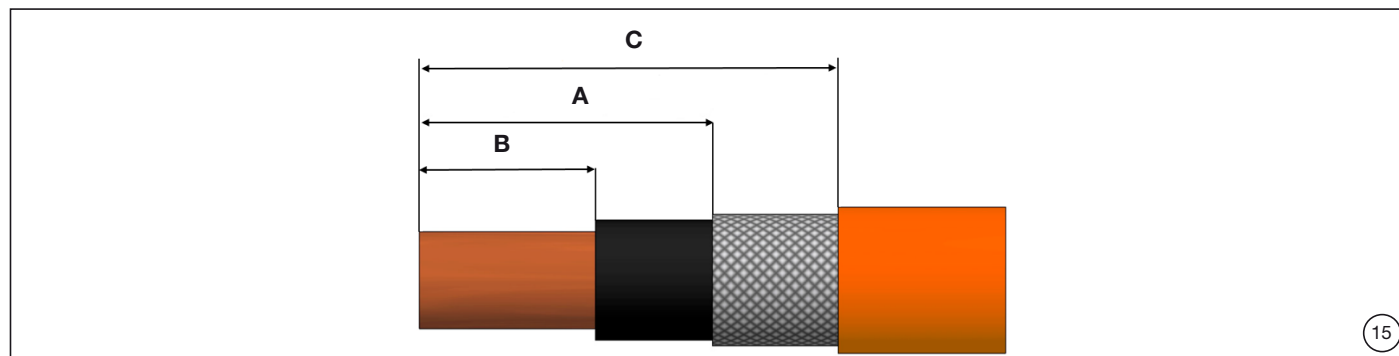
(ill. 14) Before crimping, pull the 4 positions onto the cable 5 in this order.

序号 Pos.	描述 Description
1	电缆格兰头 (预安装) Cable gland (pre-assembled)
2	适配器/Adapter
3	垫片套筒 Spacer sleeve
4	热缩管 Form shroud
5	电缆 Cable

对于 95 mm², 120 mm², 150 mm², 185 mm², 240 mm² 的导线横截面

For conductor cross-section of 95 mm²; 120 mm²; 150 mm²; 185 mm², 240 mm²

的导线横截面 Conductor cross-section	电缆格兰头 Cable gland	无入口密封范围 Sealing range without inlet 最大/最小直径 (单位:mm)/max./min. Ø in mm	带入口的密封范围 Sealing range with inlet 最大/最小直径 (单位:mm)/max./min. Ø in mm	屏蔽直径 Shield diameter max./min. in mm
95 mm ²	M32 × 1.5	25 – 20	20 – 15	20 – 13
120 mm ² 150 mm ² 185 mm ²	M40 × 1.5	32 – 26	26 – 20	28 – 20
240 mm ²	M50 × 1.5	42 – 35	35 – 31	37 – 28



导体横截面 Conductor cross section mm ²	尺寸 A Dimension A mm	尺寸 B Dimension B mm	尺寸 C Dimension C mm
95; 120; 150	60+/-2	28+/-2	95+/-3
185; 240	65+/-2	38+/-2	100+/-3

⚠ 注意
对于尺寸 A, 必须特别注意容差, 否则无法保证对屏蔽层绝缘。

⚠ Attention
For dimension A, special attention must be paid to the tolerance, otherwise the insulation to the shielding is not guaranteed.

3. 屏蔽/绝缘版本

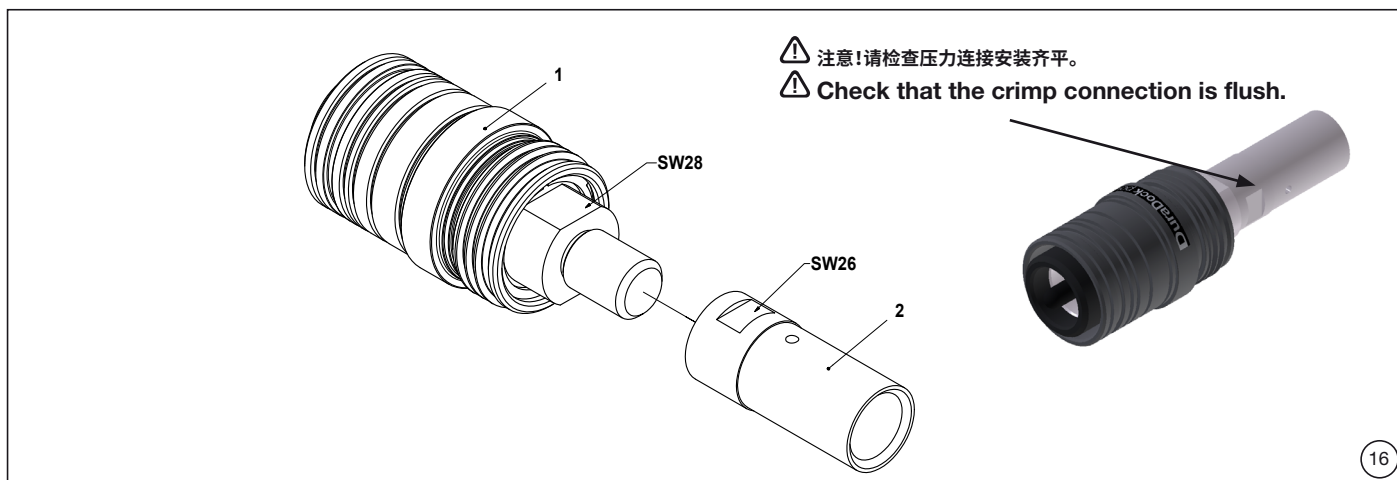
3. Shielded, insulated version

螺纹安装接插件, 直型

Screwing of contact, straight version

插头和插座端的步骤相同

Same procedure for pin and socket side



(图16)

- 在位置 **SW28** 处用 28 mm 开口扳手锁紧接插件 **1**。
- 用 80 N·m 的扭矩将位置 **SW26** 处的压接接头 **2** 拧紧到接插件。

(ill. 16)

- Lock contact **1** with open-end wrench 28 mm at position **SW28**.
- Tighten the crimp connection **2** at position **SW26** with 80 N m to the contact .

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	带压接电缆的压接接头 Crimp connection with crimped cable

3. 屏蔽/绝缘版本

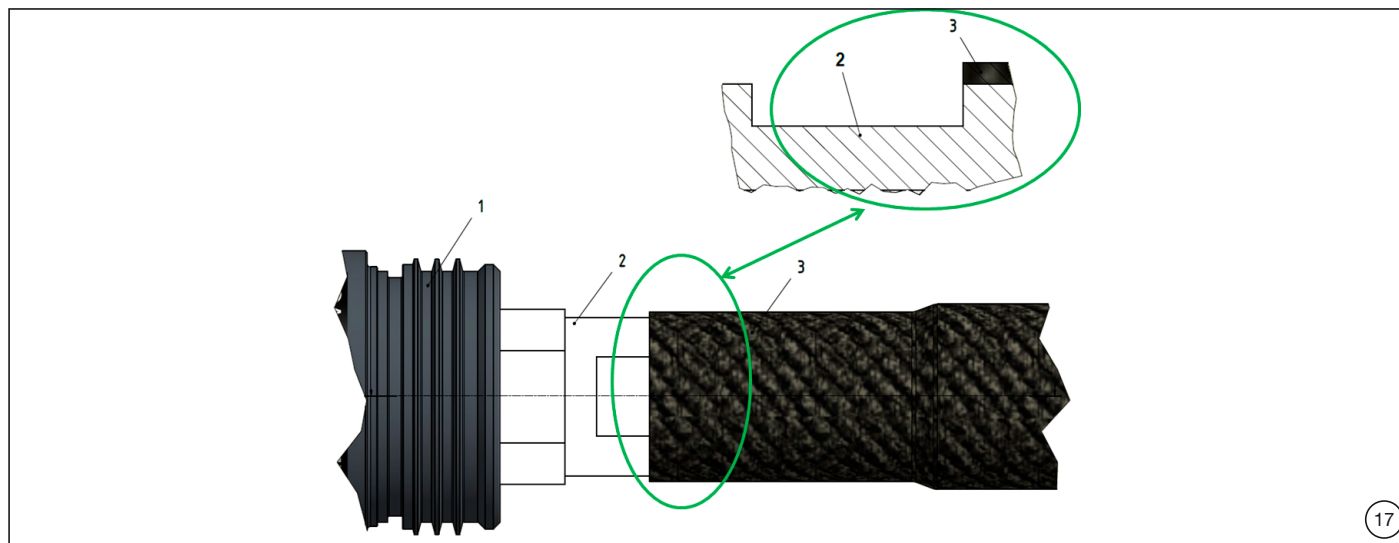
3. Shielded, insulated version

压接头收缩管

Shrink form shroud onto crimp connection

插头和插座端的步骤相同

Same procedure for pin and socket side



(图17)

- 将收缩管头 3 与压接头 2 的扳手平面齐平。

(ill. 17)

- Place form shroud 3 flush with the wrench flat of crimp connection 2.

⚠ 注意

收缩时, 确保在不损坏收缩管的情况下仍可拆卸压接头!

⚠ Attention

When shrinking, make sure that it is still possible to dismantle the crimp connection without destroying the shrink form shroud!

- 用热风枪将热缩管收缩到电缆上。

- Shrink the form shroud onto the cable with the hot air blower.

⚠ 注意

收缩时, 必须注意屏蔽端不得从收缩管中伸出。

⚠ Attention

When shrinking, care must be taken that the shield ends do not protrude from the shrink form shroud.

序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	带压接电缆的压接头 Crimp connection with crimped cable
3	收缩管头 Form shroud

3. 屏蔽/绝缘版本

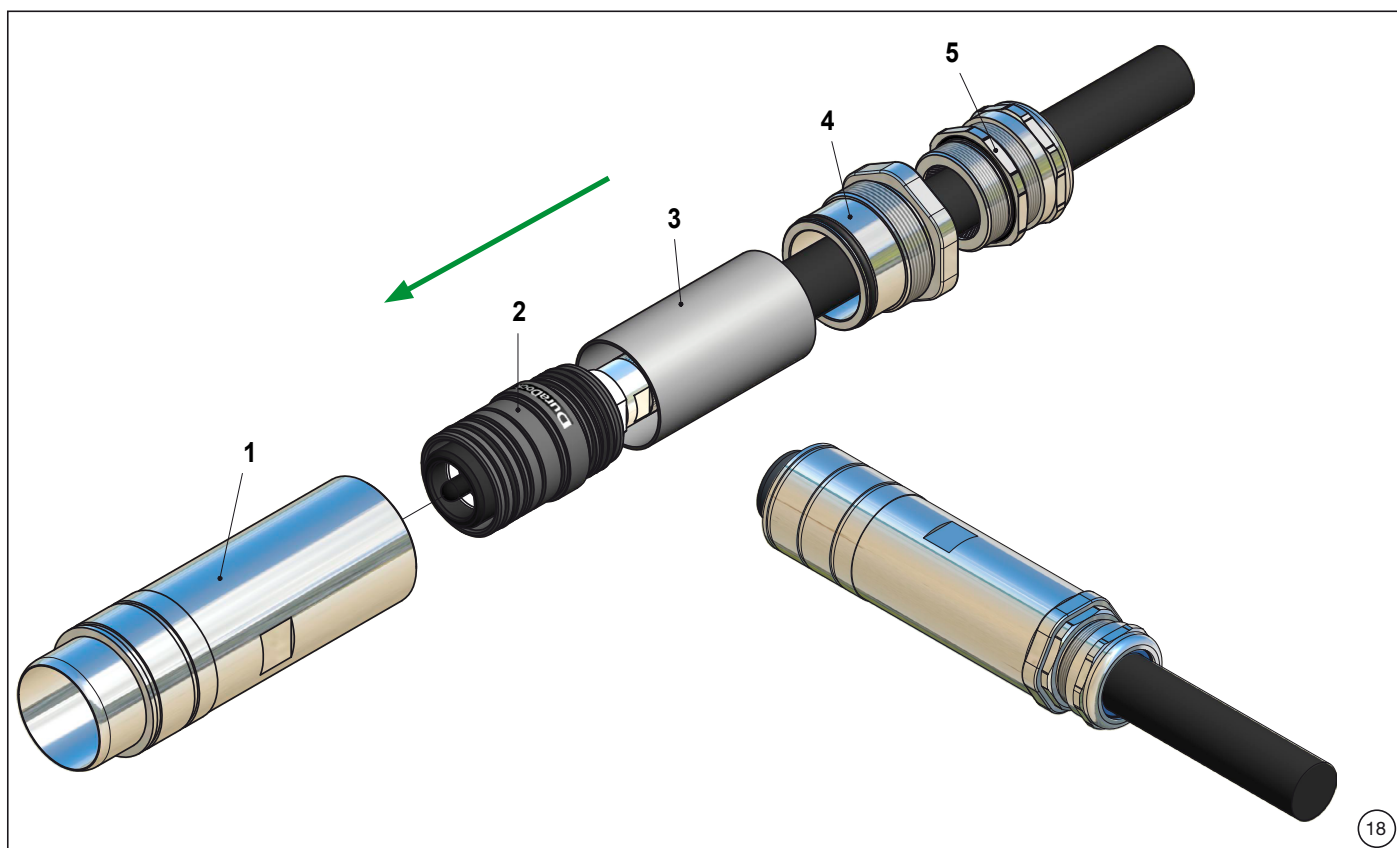
3. Shielded, insulated version

总装

Final assembly

插头和插座端的步骤相同。

Same procedure for pin and socket side.



(图18)

(ill. 18)

按顺序 2、3、4、5将带有压接电缆的压接接头推入屏蔽套管 1。

Push the prepared and crimped cable with the crimp connection into the shielding sleeve 1 in this order 2, 3, 4, 5.

- 用 30 N·m 的扭矩在屏蔽套管 1 上拧紧适配器 4。
- 用 30 N·m 的扭矩拧紧适配器 4 上的电缆格兰头 5。用 SW80 扳手固定屏蔽套管 1。
- 在电缆上用 25 N·m 的扭矩拧紧电缆格兰头 5 的联管螺母。

- Tighten adapter 4 with 30 N m on shielding sleeve 1.
- Tighten cable gland 5 with 30 N m on adapter 4. Hold the shielding sleeve 1 with the SW80 wrench.
- Tighten the union nut of cable gland 5 with 25 N m on the cable.

6 周后重新紧固!

Retighten after 6 weeks!

序号 Pos.	描述 Description
1	屏蔽套管 Shielding sleeve
2	带电缆的接插件 Contact with cable
3	垫片套筒 Spacer sleeve
4	适配器 (预组装) Adapter (pre-assembled)
5	电缆格兰头 Cable gland

3. 屏蔽/绝缘版本

3. Shielded, insulated version

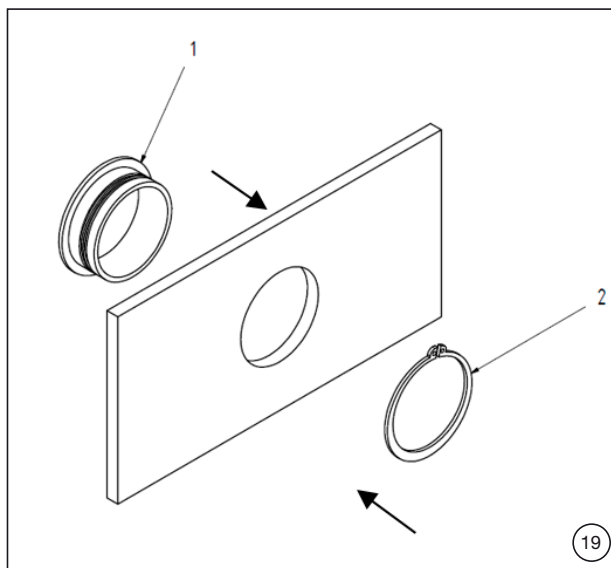
将连接器固定到对接板上

Securing the connector to the docking plate

仅适用于屏蔽版本

(is the same for all conductor cross sections)

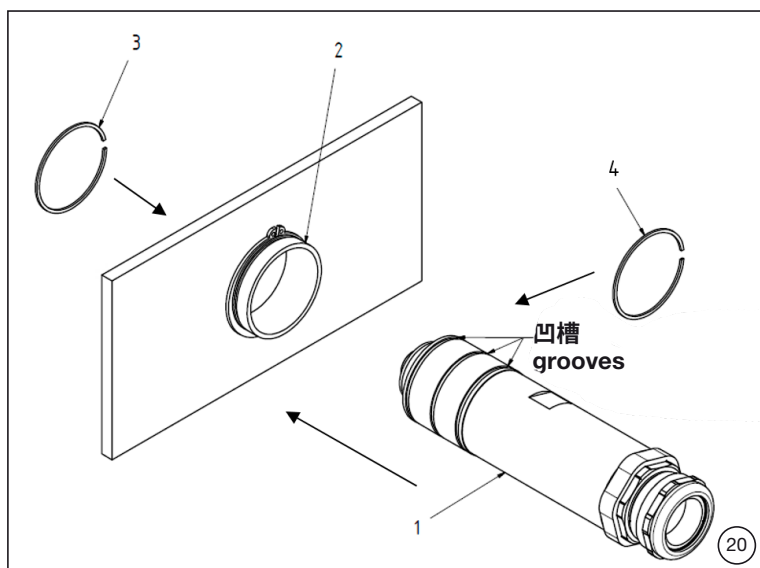
(对于所有导线横截面都相同)



(图19) 首先将带有卡箍 2 的绝缘套管 1 安装到板上。

(ill. 19) Mount insulating sleeve 1 with retaining ring 2 to the plate first.

序号 Pos.	描述 Description
1	绝缘套管 Insulating sleeve
2	卡箍 Retaining ring



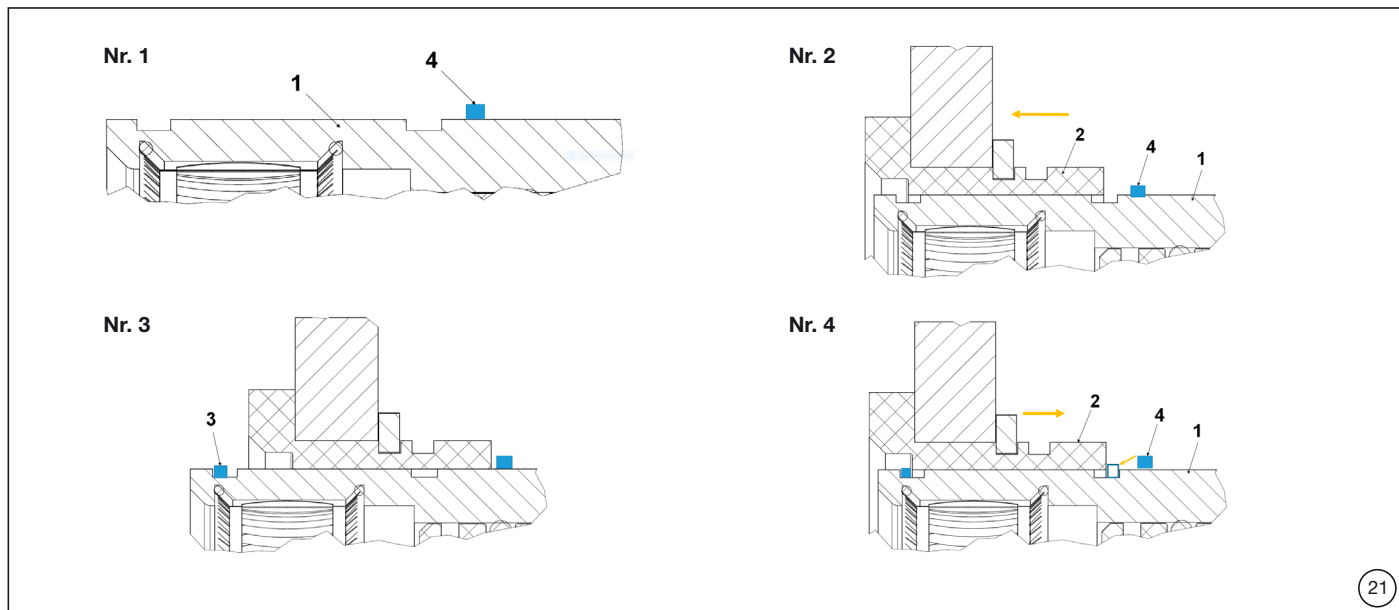
序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	绝缘套管 Insulating sleeve
3 - 4	卡环 Snap rings

3. 屏蔽/绝缘版本

3. Shielded, insulated version

板间距13 mm

Plate spacing 13 mm



(图21)

图一

将卡环 4 推到最后一个凹槽后面的接插件 1 上。

图二

将接插件 1 推过绝缘套管 2。

图三

将卡环 3 安装到凹槽中。

图四

将接插件 1 推回。
将卡环 4 推回凹槽。

插座端：

连接器的插座端有三个用于卡环的凹槽：
如果板间距 = 13 mm，请使用前两个凹槽。

插头端：

只有两个凹槽。安装与板间距无关。

(ill. 21)

Picture no.1

Push snap ring 4 onto contact 1 behind the last recess.

Picture no. 2

Push contact 1 through insulating sleeve 2.

Picture no. 3

Mount snap ring 3 into the groove.

Picture no. 4

Push contact 1 back.
Push snap ring 4 back into the groove.

Socket side:

The socket side of the connector has three grooves for snap rings:
Plate spacing = 13 mm, use the front two grooves.

Pin side:

There are only two grooves. Mounting is independent of the plate spacing.

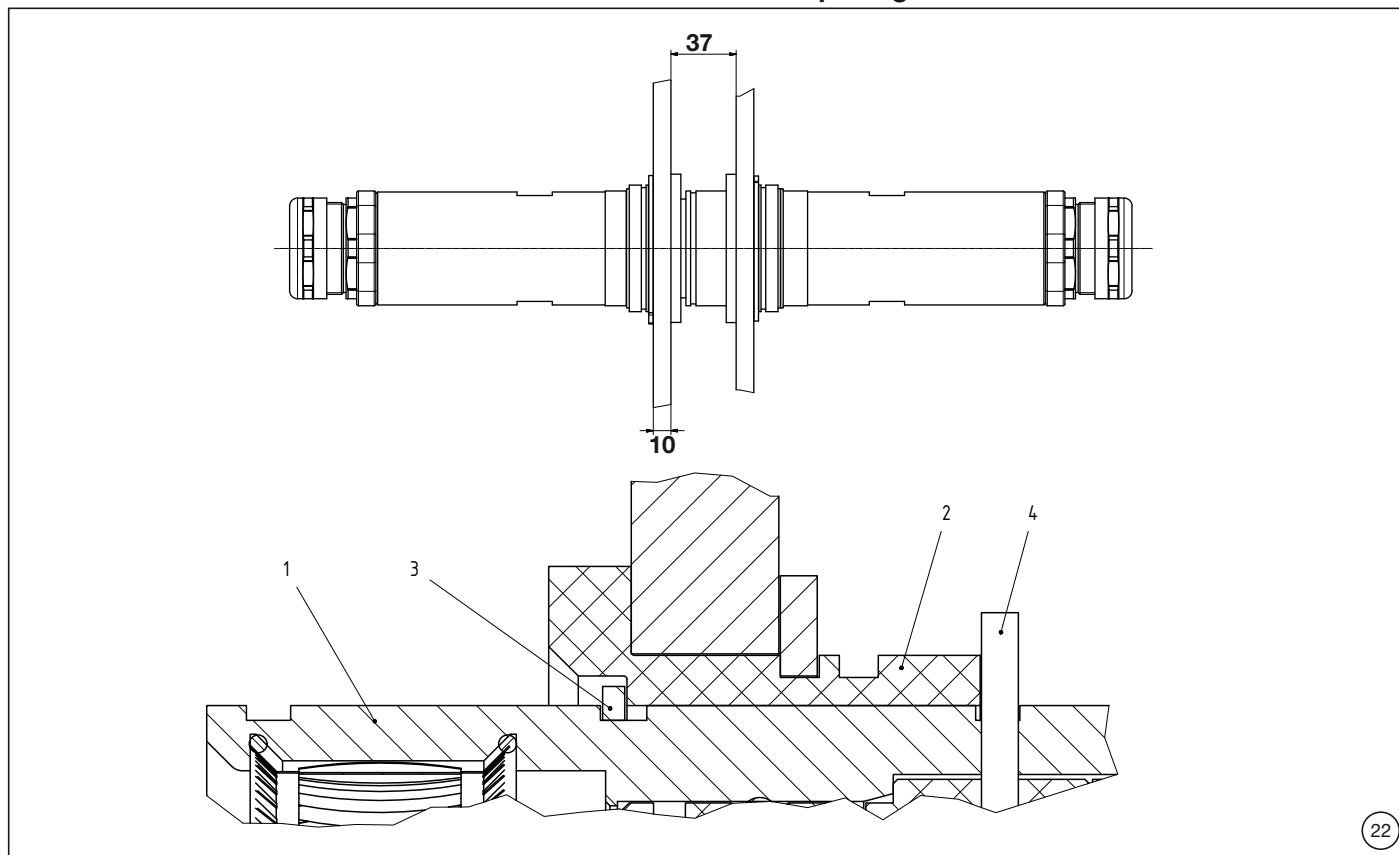
序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	绝缘套管 Insulating sleeve
3 - 4	卡环 Snap rings

3. 屏蔽/绝缘版本

3. Shielded, insulated version

板间距 37 mm

Plate spacing 37 mm



(图22)
插座端:
 连接器的插座端有三个用于卡环的凹槽:
 如果板间距 = 14 mm, 请使用前两个凹槽。

插头端:
 只有两个凹槽。安装与板间距无关。

(ill. 22)
Socket side:
 The socket side of the connector has three grooves for snap rings:
 For plate spacing = 14 mm, use the front two grooves.

Pin side:
 There are only two grooves. Mounting is independent of the plate spacing.

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	绝缘套管 Insulating sleeve
3	卡环 Snap ring
4	卡箍 Retaining ring

板厚度1/板间距/板厚度2
 Plate thickness 1/Plate distance/Plate thickness 2
 (mm)

10/13/10	10/13/14	10/37/10	10/37/14	14/13/10	14/13/14	14/37/10	14/37/14
✓	✓	✓	✓	✓	✓	✓	✓

板厚度与板间距可以任意组合。

Any plate thickness and distance can be combined.

4. 屏蔽/绝缘版本/卡套

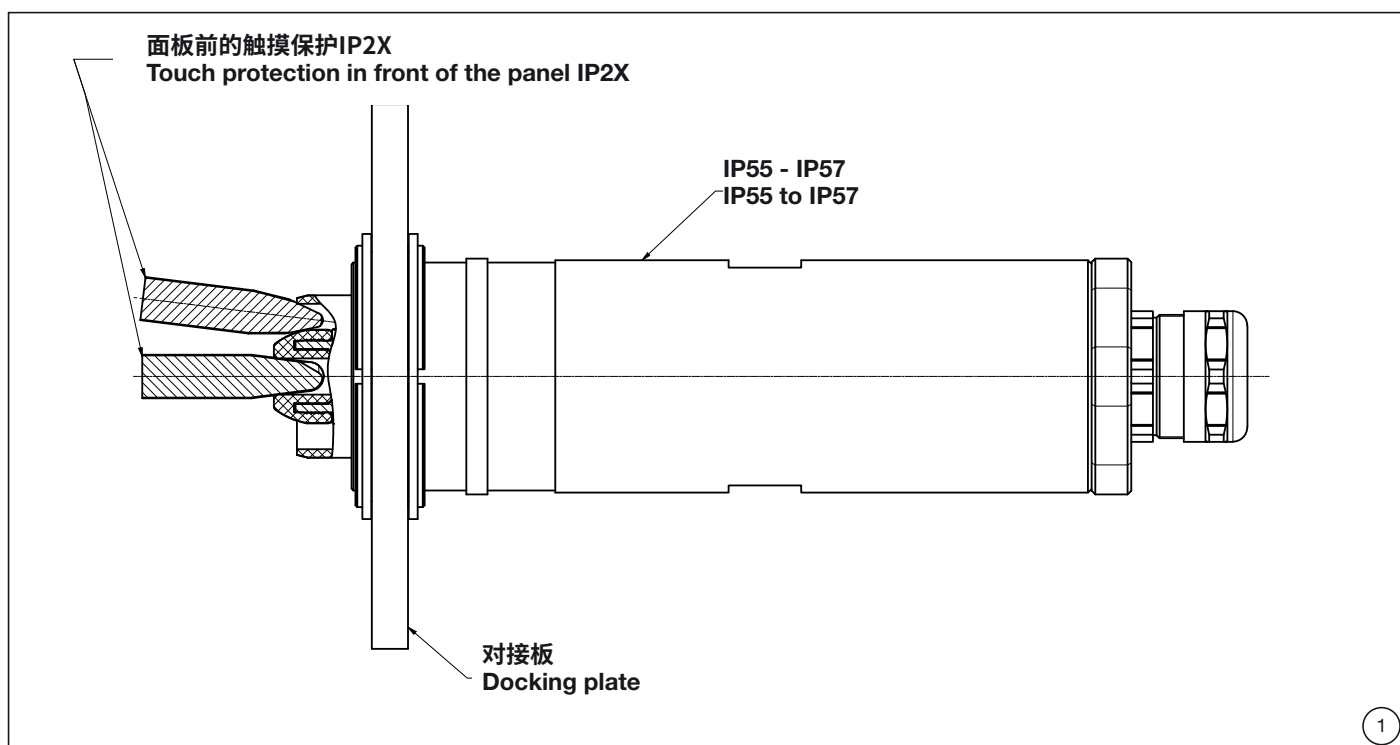
触摸保护

DuraDock 电源在对接板前面受 IP2X 保护, 适用于所有类型 (无绝缘、带绝缘、屏蔽) 的 IP2X 触摸保护。

4. Shielded, insulated version/Half shells

Touch protection

The DuraDock power is IP2X protected in front of the docking plate for all variants (without insulation, with insulation, shielded) with touch protection.



4. 屏蔽/绝缘版本/卡套

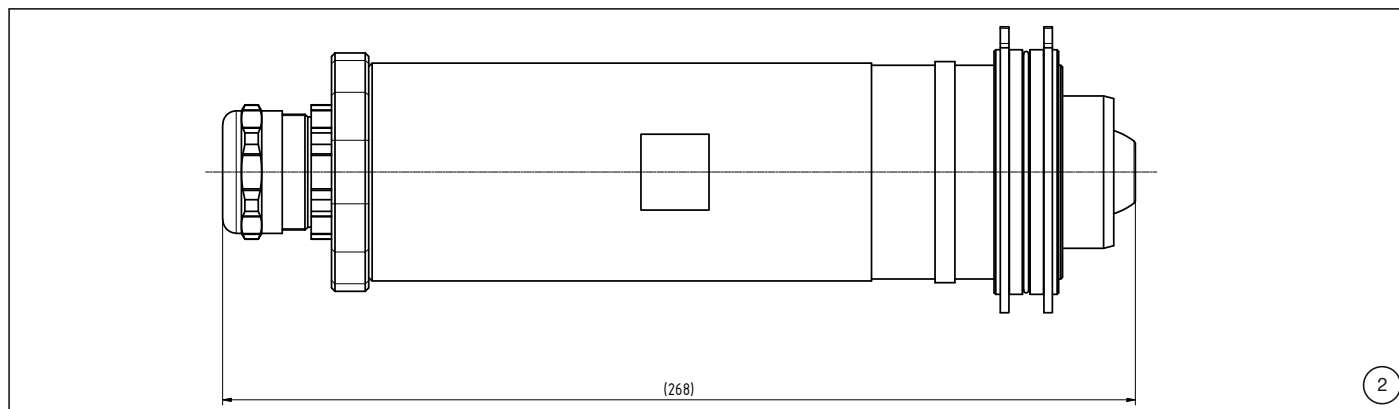
4. Shielded, insulated version/Half shells

电气数据

Electrical data

插头和插座端的步骤相同。

Same procedure for pin and socket side.



额定电压 U	Rated voltage U	AC 1000 V/DC 1500 V
额定电流 I	Rated current I	550 A
过压类别	Overvoltage category	CAT III
污染等级	Pollution degree	3
绝缘类别	Insulation group	I
最大环境温度	Max. ambient temperature	40 °C ¹⁾
允许操作温度	Permissible operating temperature	100 °C

¹⁾ 在较高温度下, 根据降额图降低电流。/At higher temperatures, current rating is reduced according to the derating diagram.

4. 屏蔽/绝缘版本/卡套

电缆夹

(不在交付货物之内)

为防止损坏 DuraDock power 28 的电源电缆, 需要额外的电缆夹。

这种电缆夹必须根据装置的可用空间提供, 不在史陶比尔交付货物之内。

图3 仅为示意图。

注意

额外的电缆夹是绝对必要的, 这样就不会对电缆施加扭转、拉扭、张力或压力。

4. Shielded, insulated version/Half shells

Cable clamping

(not included in scope of delivery)

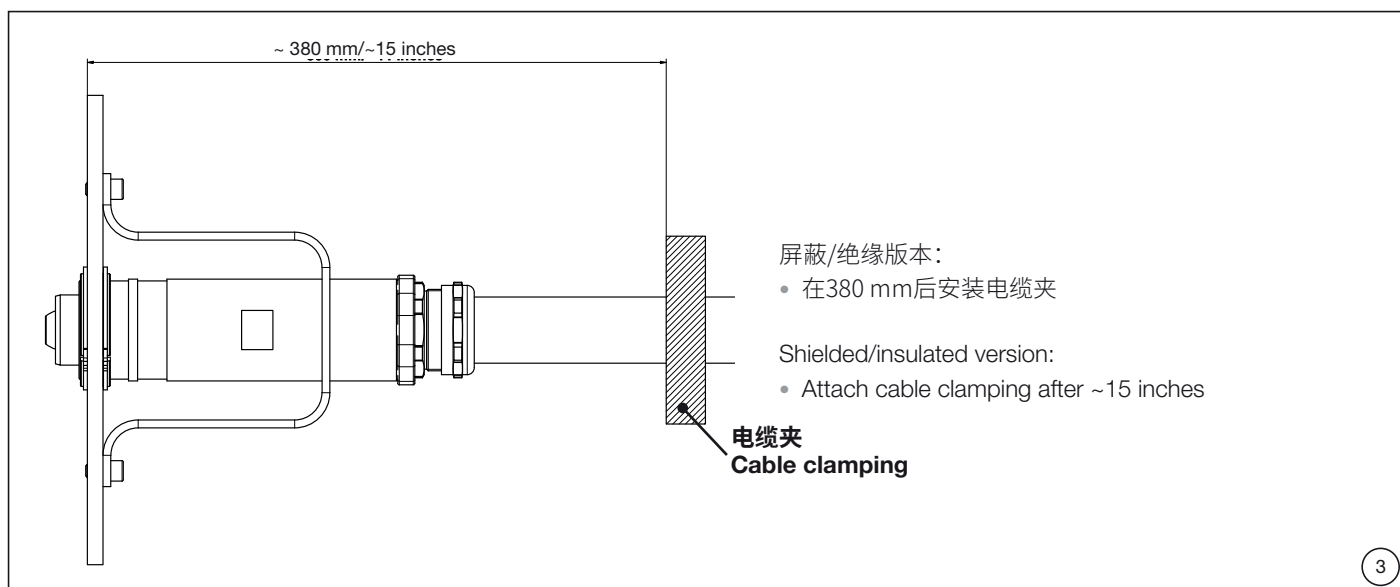
To prevent damage to the supply cable of the DuraDock power 28, an additional cable clamping is required.

This cable clamping must be provided in accordance with the available space of the installation and is not included in the Stäubli scope of delivery.

ill. 3 shows only a schematic representation.

Attention

An additional cable clamping is absolutely necessary so that no torsion, tension torsion, tension or pressure forces are exerted on the cables.



4. 屏蔽/绝缘版本/卡套

4. Shielded, insulated version/Half shells

板厚度和间距

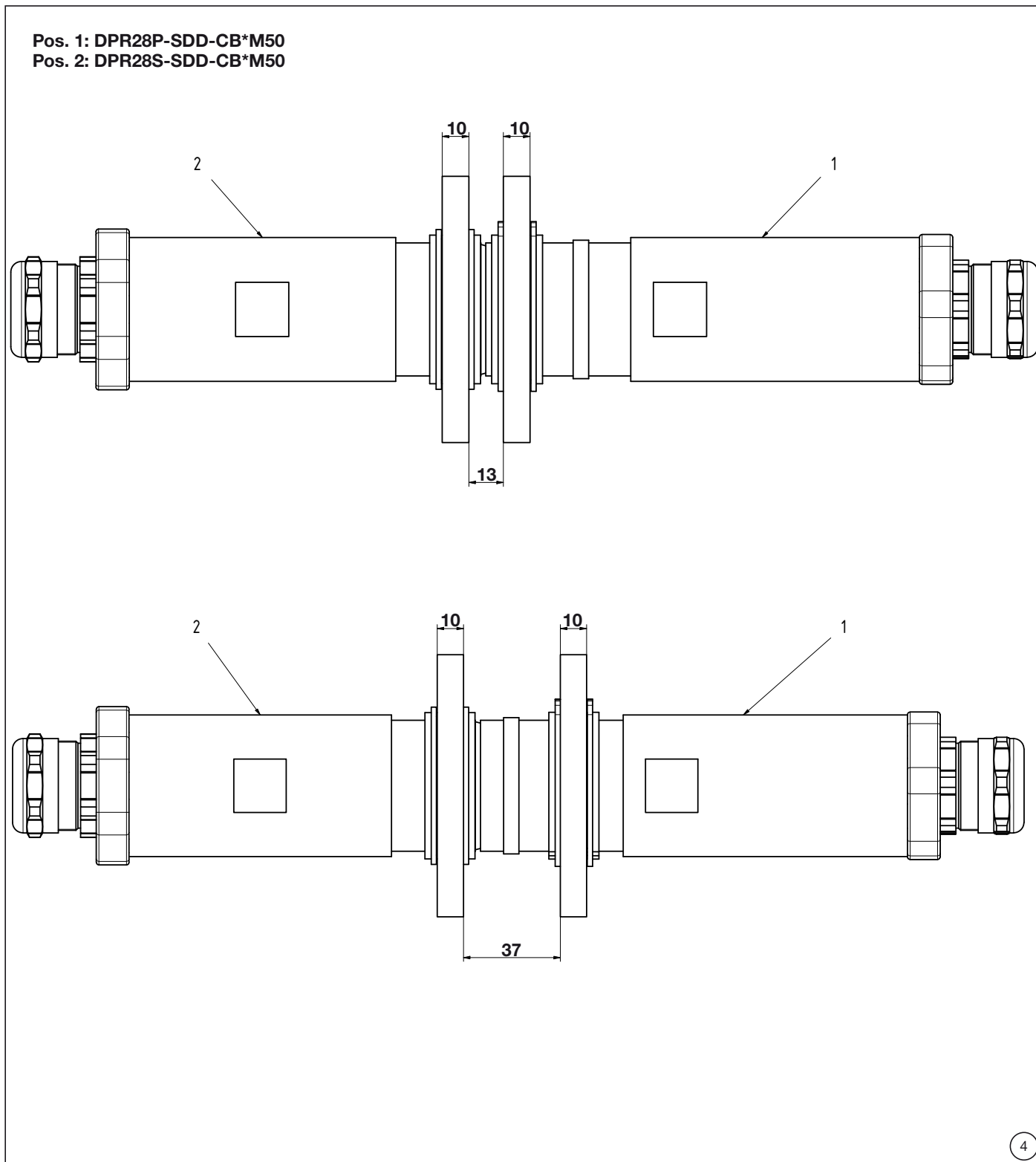
对接板的厚度必须为 10 mm 或 14 mm。
对接板之间的距离必须为 13 mm 或 37 mm。
(可选) 也有可能为板厚度 10 mm 和 14 mm 的组合。

Plate thickness and spacing

The thickness of the docking plate must either be 10 mm or 14 mm.
The distance between the docking plates must be either 13 mm or 37 mm.
Optionally, the combination of the plate thickness 10 mm and 14 mm is possible.

例如:

Example:



4. 屏蔽/绝缘版本/卡套

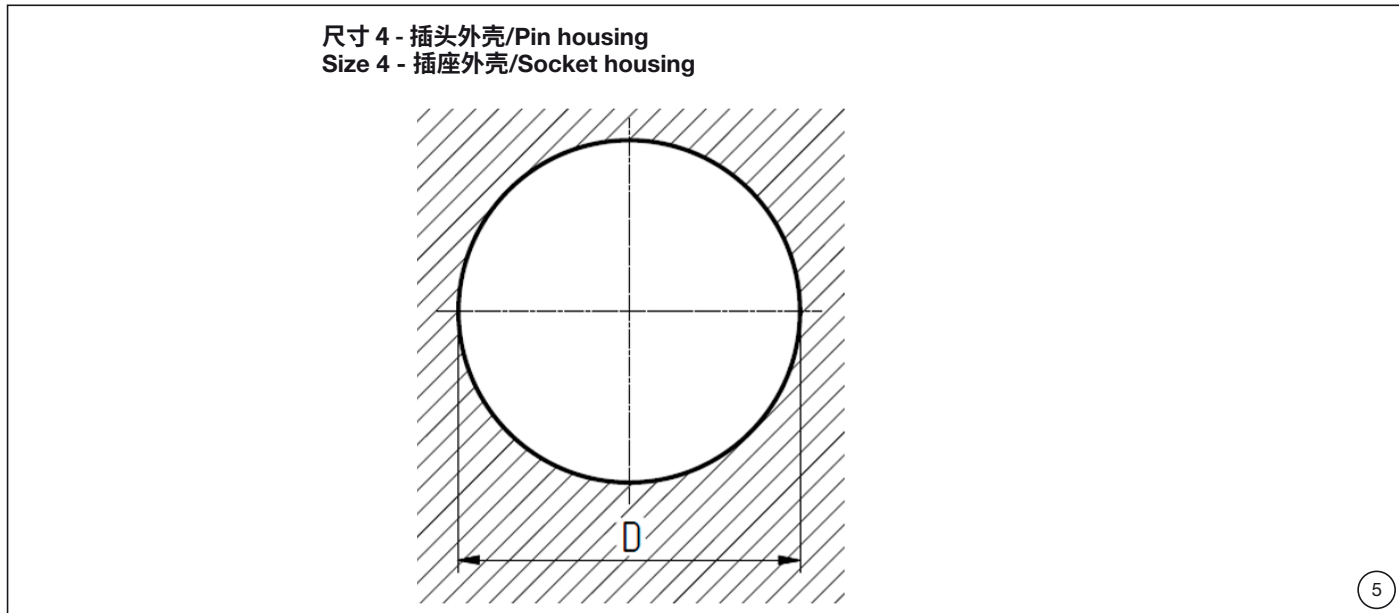
4. Shielded, insulated version/Half shells

对接系统中的安装

Installation in docking plate

钻孔图

Drilling plan



i 注意事项:

外壳不得用于机械校准。为了确保安全应用和正确对准面板，必须使用稳定的导轨和对准元件。

i Note:

The housing must not be used for mechanical alignment. Stable guides and alignment elements must be used for safe application and correct alignment of the plates.

对接板尺寸 (固定支架) Size of docking plate (mounting bracket)	D ^{E8}	应用 Application
尺寸 4/Size 4 外壳/Housing	Ø 72	DPR28S-SDD-CB*M50 DPR28P-SDD-CB*M50

4. 屏蔽/绝缘版本/卡套

4. Shielded, insulated version/Half shells

所需工具

(图6)
压接钳
建议：
柯劳克 EK60VPFTCFM

i 提示：
操作说明, [链接](#)

Tools required

(ill. 6)
Crimping pliers
Recommendation:
Klauke EK60VPFTCFM

i Hinweis:
Operating instructions, [link](#)



6



7

(图7)
28 mm, 60 mm 开口扳手

(ill. 7)
Open-end spanner 28 mm, 60 mm



8

(图8)
弯曲的卡箍钳：
• 用于 72 mm 的外圈

(ill. 8)
Retaining ring pliers curved:
• for outer rings 72 mm



9

(图9)
26 mm* 开口扭矩扳手*: [链接](#),

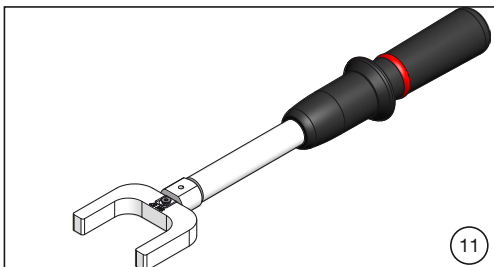
(ill. 9)
Torque wrench with open-end spanner
26 mm*: [link](#)



10

(图10)
热风枪, 最小功率 1500W

(ill. 10)
Hot air blower min. 1500 W



11

(图11)
带插入件/压接嵌块的扭矩扳手 57 mm, 订货号 18.0551 和 65 mm, 订货号 18.0550.

(ill. 11)
Torque wrench with insert wrench
57 mm, order No. 18.0551 and 65 mm,
order No. 18.0550.

4. 屏蔽/绝缘版本/卡套

4. Shielded, insulated version/Half shells

分解图直型

Exploded view straight version

DPR28P-UIS-CB*

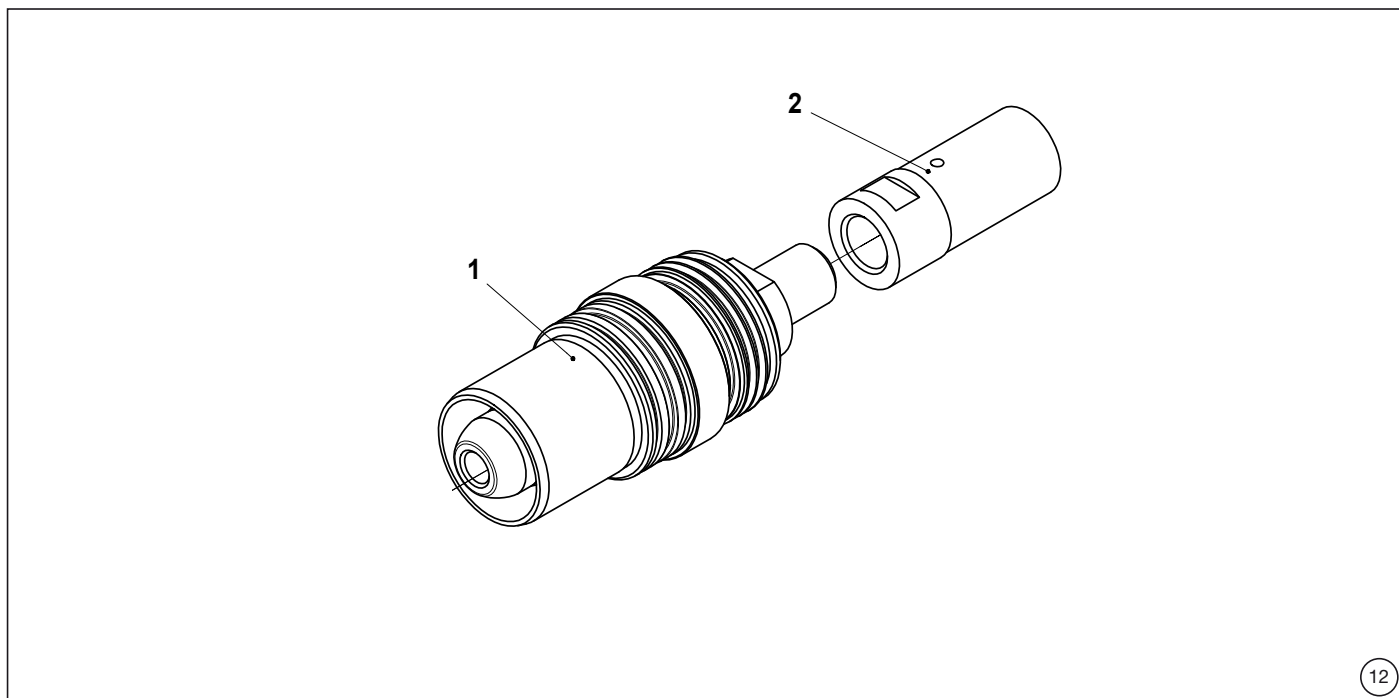
DPR28P-UIS-CB*

插头和插座端的步骤相同

Same procedure for pin and socket side

可能的可连接导线横截面：
DPR28P-UIS-CB* + DPR28S-UIS-CB*
95 mm²; 120 mm²; 150 mm²; 185 mm²; 240 mm²

Possible connectable conductor cross section at:
DPR28P-UIS-CB* + DPR28S-UIS-CB*
95 mm²; 120 mm²; 150 mm²; 185 mm²; 240 mm²



12

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	压接接头 Crimp connection

4. 屏蔽/绝缘版本/卡套

4. Shielded, insulated version/Half shells

分解图直型

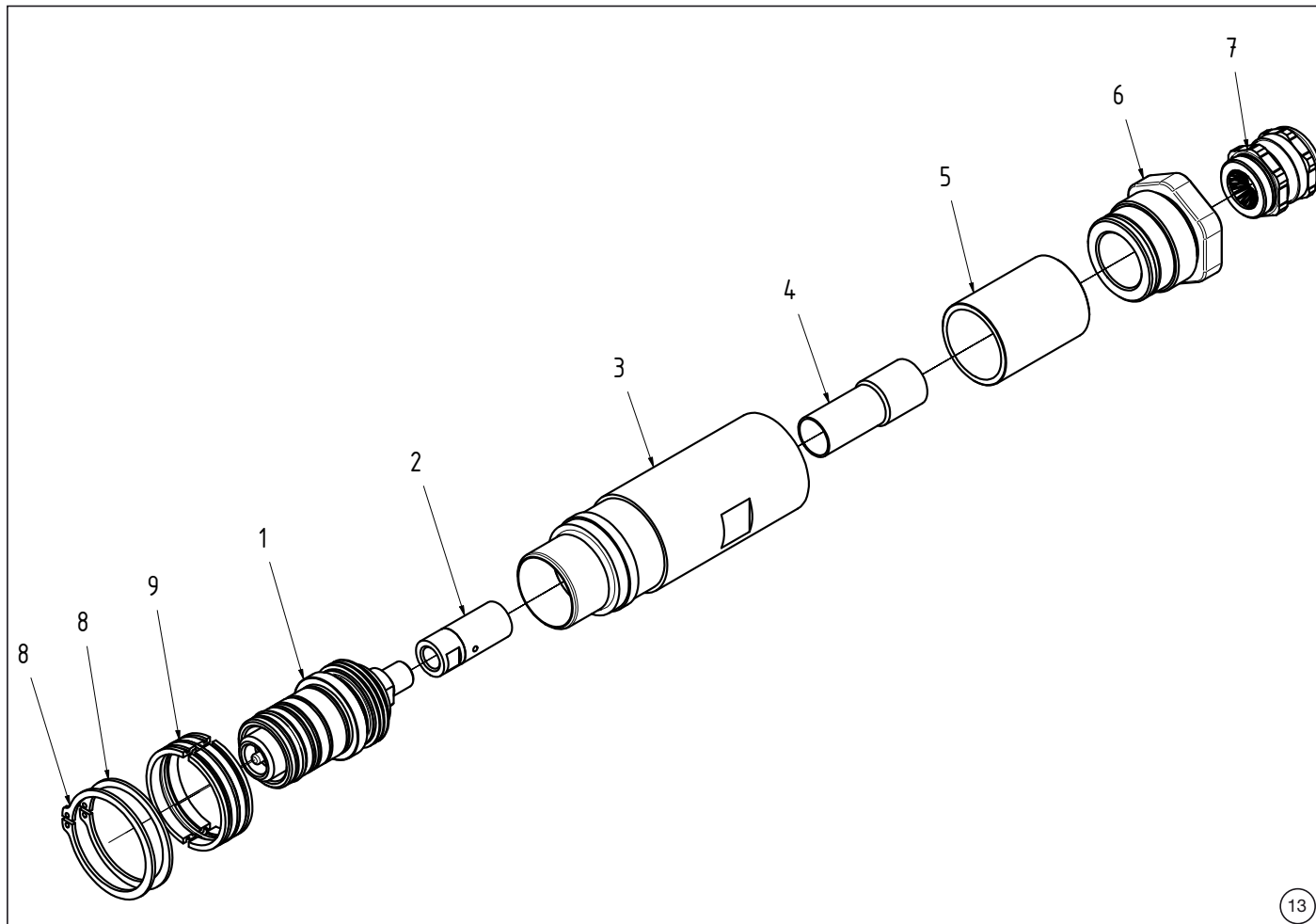
Exploded view straight version

DPR28P-SDD-CB*

插头和插座端的步骤相同

DPR28P-SDD-CB*

Same procedure for pin and socket side



13

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	压接头 Crimp connection
3	屏蔽套管 Shielding sleeve
4	热缩管 Form shroud
5	垫片套筒 Spacer sleeve
6	适配器 (预组装) Adapter (pre-assembled)
7	电缆格兰头 Cable gland
8	卡箍 Retaining ring
9	卡套 Half shell

4. 屏蔽/绝缘版本/卡套

4. Shielded, insulated version/Half shells

安装步骤

DPR28P-SDD-CB*M50 和 DPR28S-SDD-CB*M50

插头和插座端的步骤相同

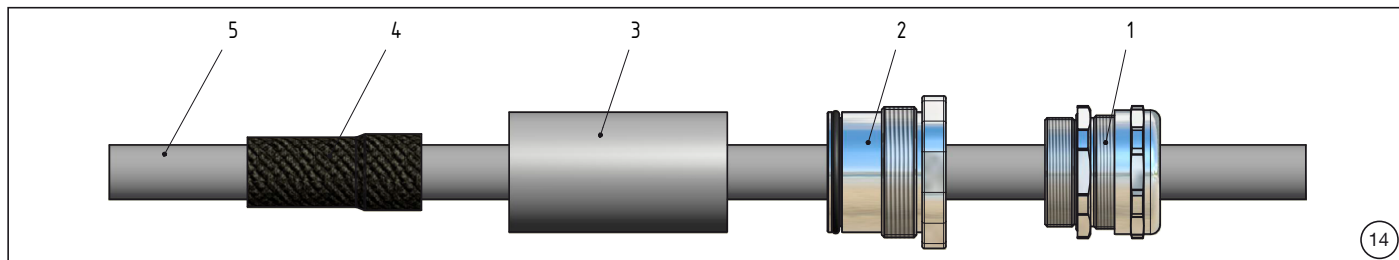
电缆准备

Assembly steps

DPR28P-SDD-CB*M50 and DPR28S-SDD-CB*M50

Same procedure for pin and socket side

Cable preparation



(图14)

压接前, 按此顺序将 4 个部件拉到电缆 5 上。

(ill. 14)

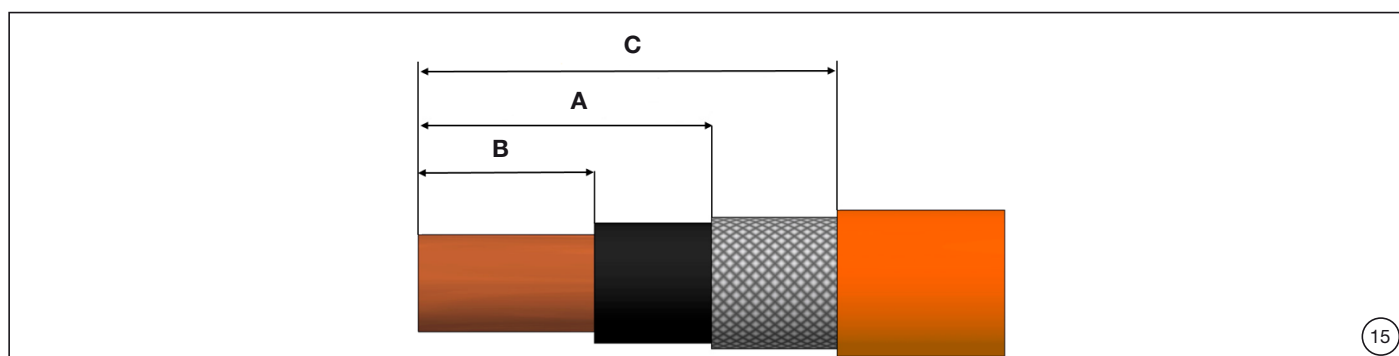
Before crimping, pull the 4 positions onto the cable 5 in this order.

序号 Pos.	描述 Description
1	电缆格兰头 (预安装) Cable gland (pre-assembled)
2	适配器/Adapter
3	垫片套筒 Spacer sleeve
4	热缩管 Form shroud
5	电缆 Cable

对于 95 mm², 120 mm², 150 mm², 185 mm², 240 mm² 的导线横截面

For conductor cross-section of 95 mm²; 120 mm²; 150 mm²; 185 mm², 240 mm²

的导线横截面 Conductor cross-section	电缆格兰头 Cable gland	无入口密封范围 Sealing range without inlet 最大/最小直径 (单位: mm) / max./min. Ø in mm	带入口的密封范围 Sealing range with inlet 最大/最小直径 (单位: mm) / max./min. Ø in mm	屏蔽直径 Shield diameter max./min. in mm
95 mm ²	M32 × 1.5	25 – 20	20 – 15	20 – 13
120 mm ² 150 mm ² 185 mm ²	M40 × 1.5	32 – 26	26 – 20	28 – 20
240 mm ²	M50 × 1.5	42 – 35	35 – 31	37 – 28



导体横截面 Conductor cross section mm ²	尺寸 A Dimension A mm	尺寸 B Dimension B mm	尺寸 C Dimension C mm
95; 120; 150	60+/-2	28+/-2	95+/-3
185; 240	65+/-2	38+/-2	100+/-3

⚠ 注意

对于尺寸 A, 必须特别注意容差, 否则无法保证对屏蔽层绝缘。

⚠ Attention

For dimension A, special attention must be paid to the tolerance, otherwise the insulation to the shielding is not guaranteed.

4. 屏蔽/绝缘版本/卡套

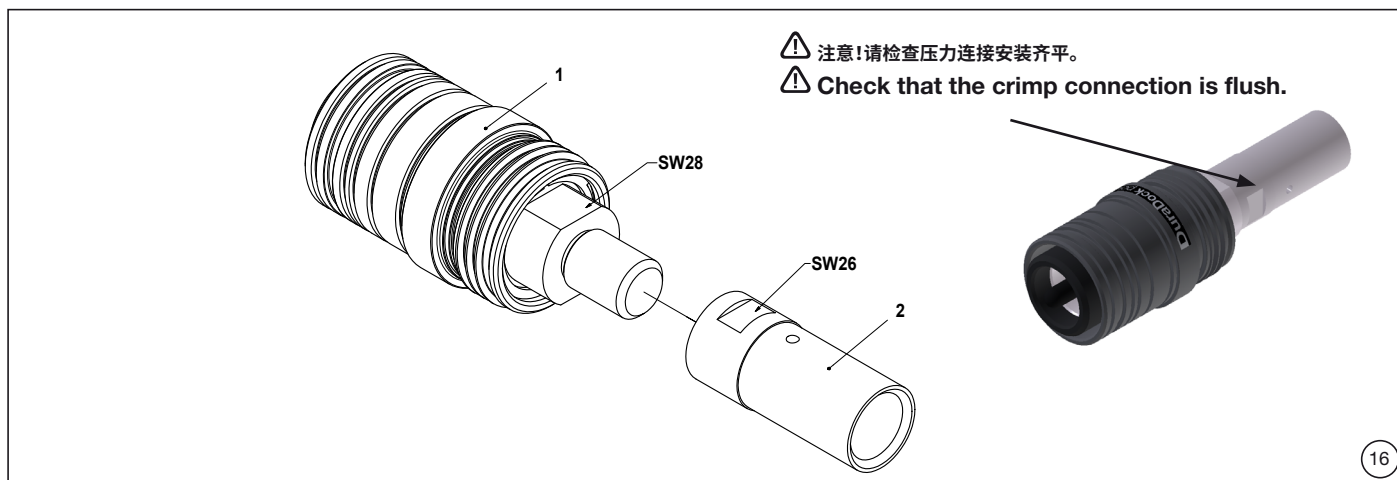
4. Shielded, insulated version/Half shells

螺纹安装接插件, 直型

Screwing of contact, straight version

插头和插座端的步骤相同

Same procedure for pin and socket side



(图16)

- 在位置 **SW28** 处用 28 mm 开口扳手锁紧接插件 **1**。
- 用 80 N·m 的扭矩将位置 **SW26** 处的压接接头 **2** 拧紧到接插件。

(ill. 16)

- Lock contact **1** with open-end wrench 28 mm at position **SW28**.
- Tighten the crimp connection **2** at position **SW26** with 80 N m to the contact .

序号 Pos.	描述 Description
1	接插件(预安装) Contact (pre-assembled)
2	带压接电缆的压接接头 Crimp connection with crimped cable

4. 屏蔽/绝缘版本/卡套

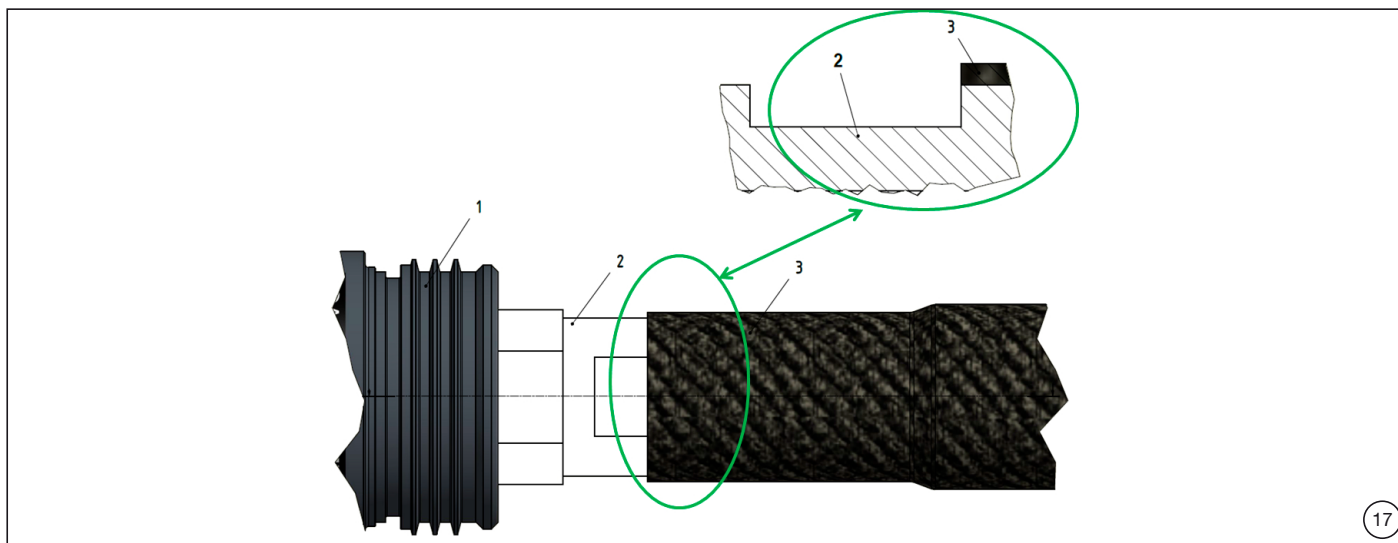
4. Shielded, insulated version/Half shells

压接接头收缩管

Shrink form shroud onto crimp connection

插头和插座端的步骤相同

Same procedure for pin and socket side



(图17)

(ill. 17)

- 将收缩管头 3 与压接接头 2 的扳手平面齐平。

- Place form shroud 3 flush with the wrench flat of crimp connection 2.

⚠ 注意

收缩时, 确保在不损坏收缩管的情况下仍可拆卸压接接头!

⚠ Attention

When shrinking, make sure that it is still possible to dismantle the crimp connection without destroying the shrink form shroud!

- 用热风枪将热缩管收缩到电缆上。

- Shrink the form shroud onto the cable with the hot air blower.

⚠ 注意

收缩时, 必须注意屏蔽端不得从收缩管中伸出。

⚠ Attention

When shrinking, care must be taken that the shield ends do not protrude from the shrink form shroud.

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	带压接电缆的压接接头 Crimp connection with crimped cable
3	收缩管头 Form shroud

4. 屏蔽/绝缘版本/卡套

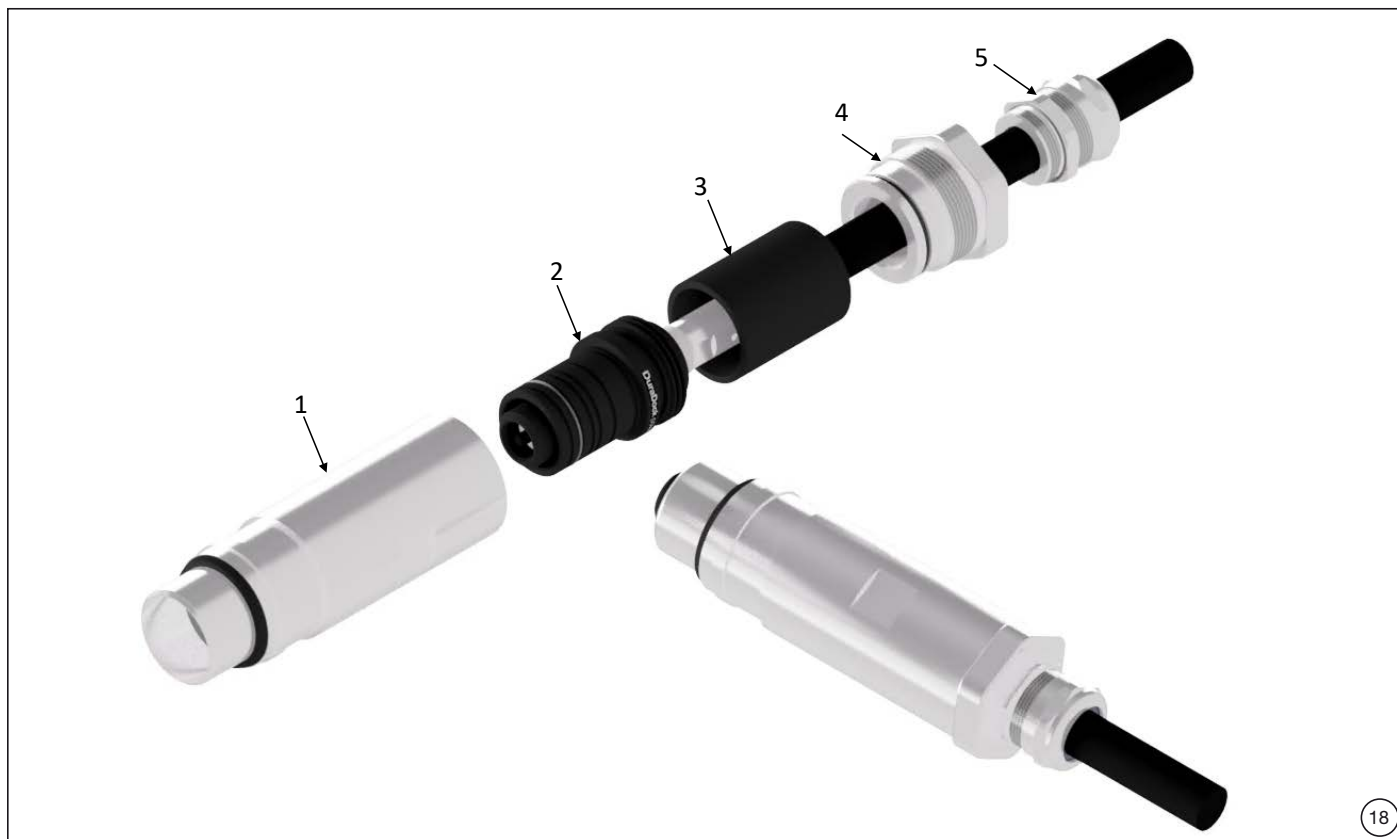
4. Shielded, insulated version/Half shells

总装

插头和插座端的步骤相同。

Final assembly

Same procedure for pin and socket side.



(图18) 按顺序 2、3、4、5将带有压接电缆的压接接头推入屏蔽套管 1。

- 用 30 N·m 的扭矩在屏蔽套管 1 上拧紧适配器 4。
- 用 30 N·m 的扭矩拧紧适配器 4 上的电缆格兰头 5。用 SW80 扳手固定屏蔽套管 1。
- 在电缆上用 25 N·m 的扭矩拧紧电缆格兰头 5 的联管螺母。

6 周后重新紧固!

(Ill. 18) Push the prepared and crimped cable with the crimp connection into the shielding sleeve 1 in this order 2, 3, 4, 5.

- Tighten adapter 4 with 30 N m on shielding sleeve 1.
- Tighten cable gland 5 with 30 N m on adapter 4. Hold the shielding sleeve 1 with the SW80 wrench.
- Tighten the union nut of cable gland 5 with 25 N m on the cable.

Retighten after 6 weeks!

序号 Pos.	描述 Description
1	屏蔽套管 Shielding sleeve
2	带电缆的接插件 Contact with cable
3	垫片套筒 Spacer sleeve
4	适配器 (预组装) Adapter (pre-assembled)
5	电缆格兰头 Cable gland

4. 屏蔽/绝缘版本/卡套

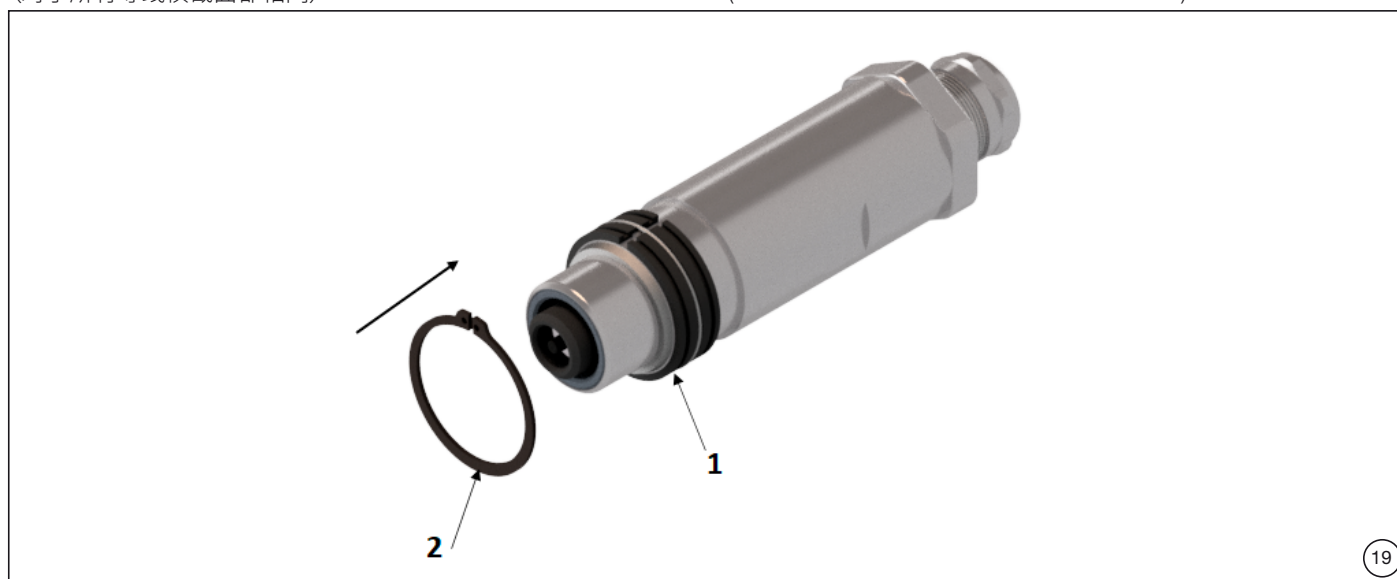
4. Shielded, insulated version/Half shells

将连接器固定到对接板上

Securing the connector to the docking plate

(对于所有导线横截面都相同)

(is the same for all conductor cross sections)



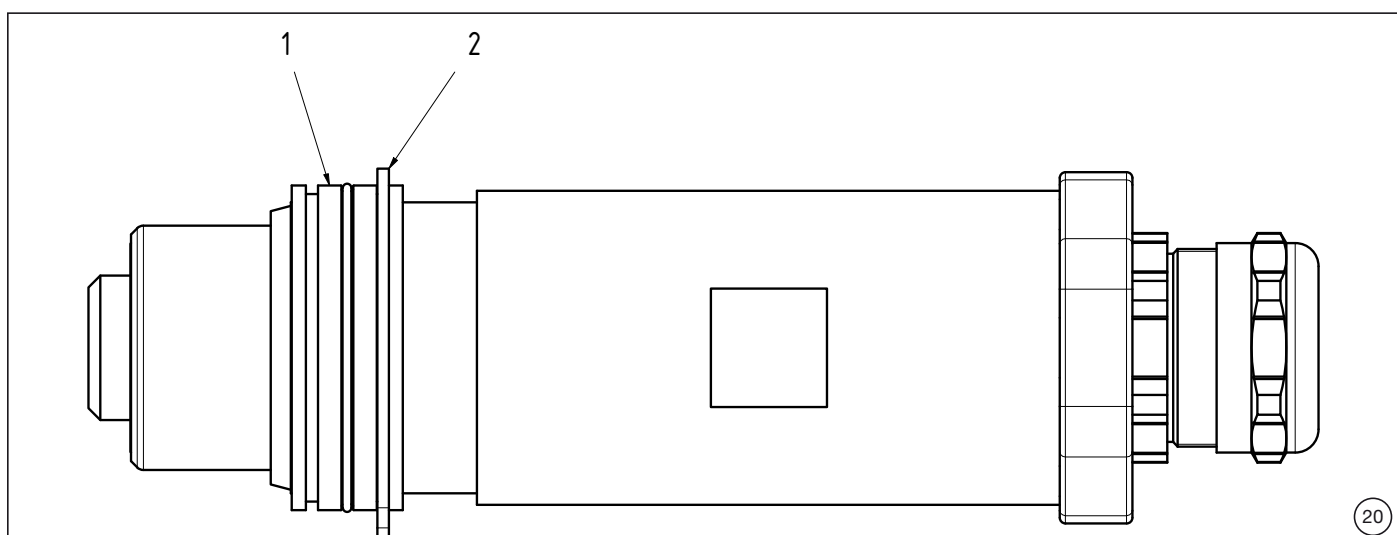
(图19)

首先将带有卡箍 2 的绝缘套管 1 安装到板上。

(ill. 19)

Mount insulating sleeve 1 with retaining ring 2 to the plate first.

序号 Pos.	描述 Description
1	绝缘套管 Insulating sleeve
2	卡箍 Retaining ring



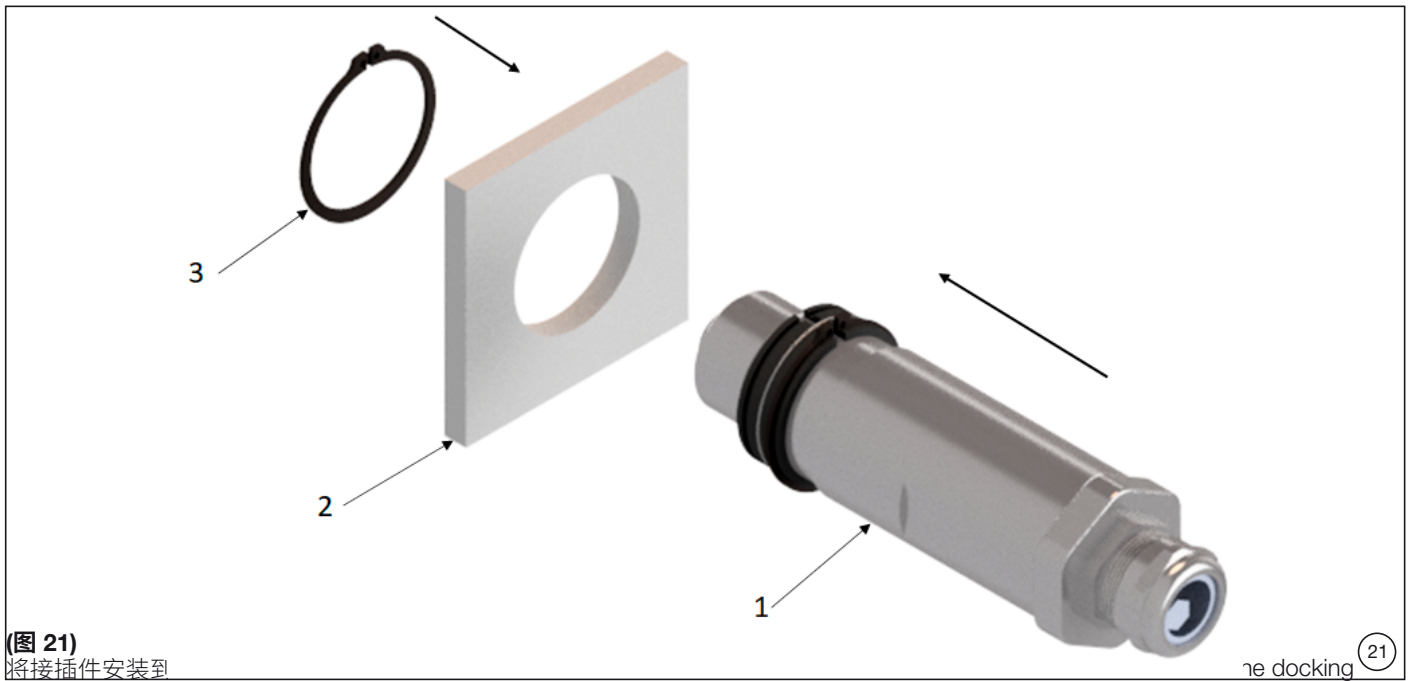
(图 20)

卡箍2必须安装在凹槽内。

(ill. 20)

The retaining ring 2 must be mounted in the back groove.

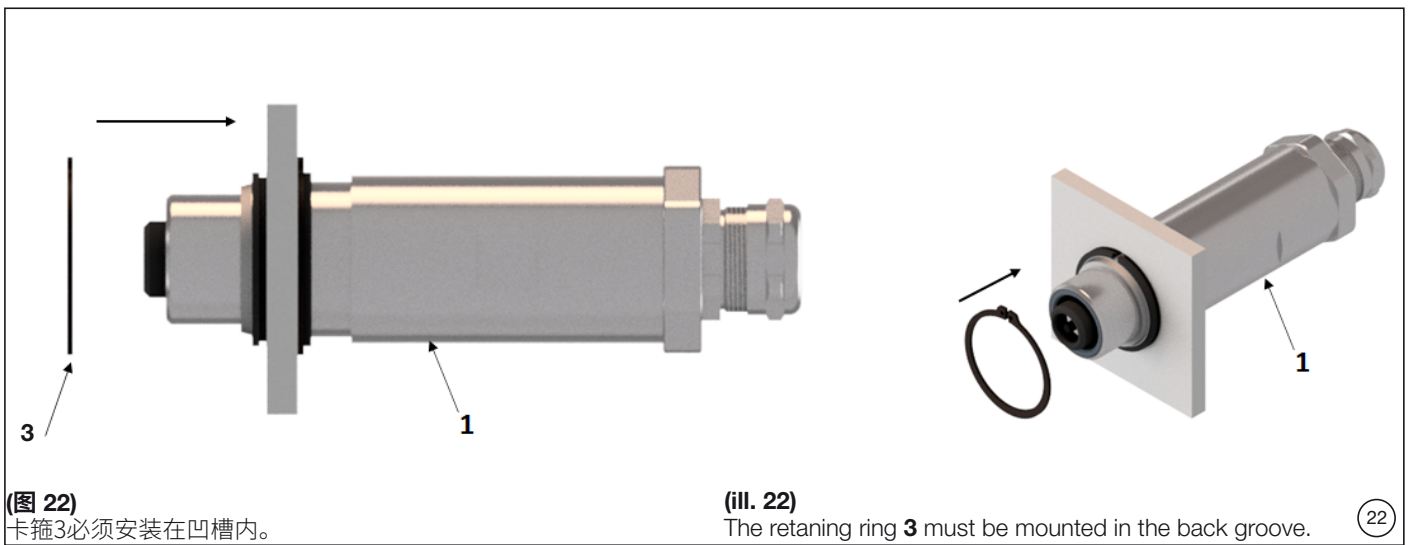
序号 Pos.	描述 Description
1	绝缘套管 Insulating sleeve
2	卡箍 Retaining ring



(图 21)
将接插件安装到

the docking (21)

plate.



(图 22)
卡箍3必须安装在凹槽内。

(ill. 22)
The retaining ring 3 must be mounted in the back groove. (22)

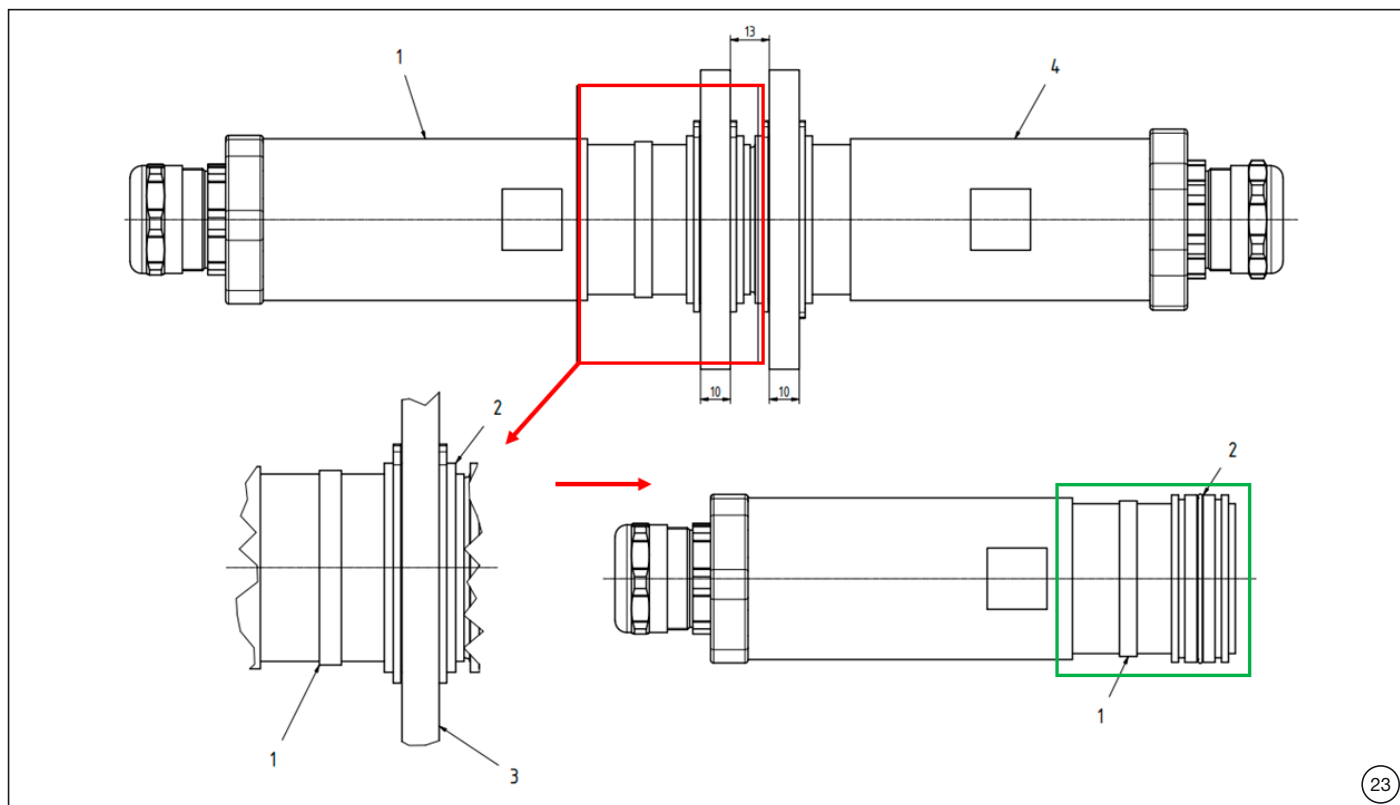
序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	对接板 Docking plate
3	卡箍 Retaining ring

4. 屏蔽/绝缘版本/卡套

4. Shielded, insulated version/half shells

板间距13 mm

Plate spacing 13 mm



(图 23)
板间距为13mm时，必须确保绝缘套管2安装在接插件1的前端（参见绿框）。

接插件4不需要改变绝缘套管2的位置。

(ill. 23)
In the case of plate spacing 13 mm, care must be taken to ensure that the insulating sleeve **2** is fitted at the front of contact **1** (see green box).

Contact **4** does not require the position of the insulating sleeve **2** to be changed.

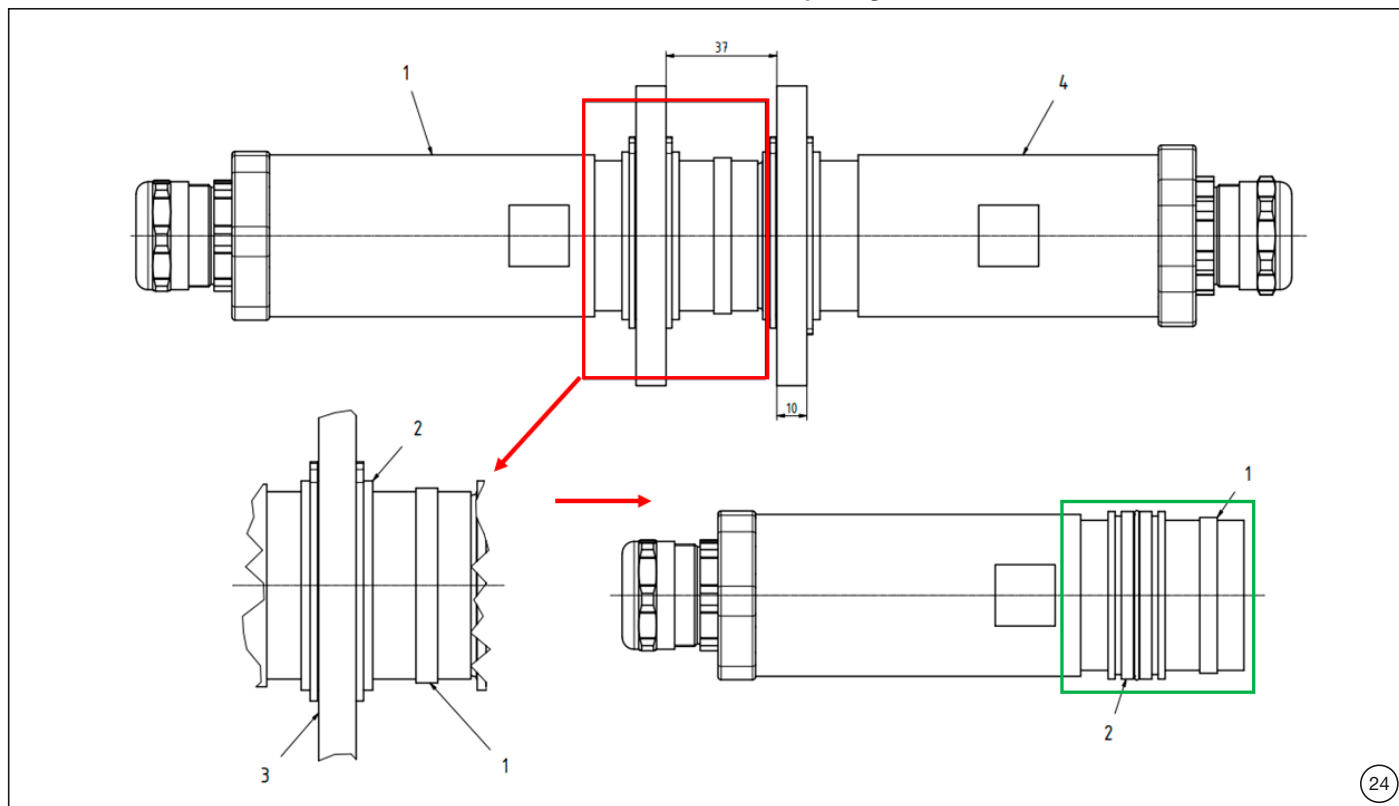
序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	绝缘套管 Insulating sleeve
3	对接板 Docking plate
4	接插件 (预安装) Contact (pre-assembled)

4. 屏蔽/绝缘版本/卡套

4. Shielded, insulated version/half shells

Plattenabstand 37 mm

Plate spacing 37 mm



(图 24)
板间距为37mm时, 必须确保绝缘套管2安装在接插件1的前端(参见绿框)。

接插件4不需要改变绝缘套管2的位置。

(ill. 24)
For plate spacing 37 mm, it must be ensured that the insulating sleeve 2 is mounted at the rear of contact 1 (see green box).

Contact 4 does not require the position of the insulating sleeve 2 to be changed.

序号 Pos.	描述 Description
1	接插件 (预安装) Contact (pre-assembled)
2	绝缘套管 Insulating sleeve
3	对接板 Docking plate
4	接插件 (预安装) Contact (pre-assembled)

生产商/Producer:
Stäubli Electrical Connectors AG
 Stockbrunnenrain 8
 4123 Allschwil/Switzerland
 Tel. +41 61 306 55 55
 Fax +41 61 306 55 56
 mail ec.ch@staubli.com
 www.staubli.com/electrical