

MA213-04 (cn_en)
安装说明

CombiTac uniq
数据传输模块 CT-NET-...

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CT-RJ45/... 连接器不需要任何安装说明。

MA213-04 (cn_en)
Assembly instructions

CombiTac uniq
Connectors for data transfer CT-NET-...

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No assembly instructions are required for CT-RJ45/... connectors.



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.



IEC 60417-618
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。

对于大于 DC 60 V 或大于 AC 30 V 的电压，必须测量以确认金属外壳到保护地 (PE) 的电阻。

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 earthing 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.

For voltages > DC 60 V or > AC 30 V, protective earthing (PE) measures of metal housings must be taken.



IEC 60417-6070
在负载下请勿断开

仅当额定电压不超过 AC 1000 V / DC 1500 V DC 时，连接器才可能在带电压的状态下断开和插合。

当额定电压超过 AC 1000 V / DC 1500 V 时，仅在连接器插合状态下方可带电，且不允许在负载下进行断开和插合动作。这也适用于在单一型号中同时配置电连接模块与气体和液体模块的情况。

Do not disconnect under load

Connecting and disconnecting when live is only permitted if the rated voltage does not exceed AC 1000 V / DC 1500 V.

For rated voltages over AC 1000 V / DC 1500 V, the voltage must

only be applied in mated condition, disconnecting under load or connecting when live is not permitted. This also applies for electrical connections in close proximity to fluid and gas connections.

安全**Safety instructions****ISO 7000-0434B**
注意

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。

带外壳应用的连接器的防水功能可参考相关产品的IP保护等级。

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。

Caution

Each time the connector is used, it should previously be inspected for external defects (particularly the insulation). If there are any doubts as to its safety, a specialist must be consulted or the connector must be replaced.

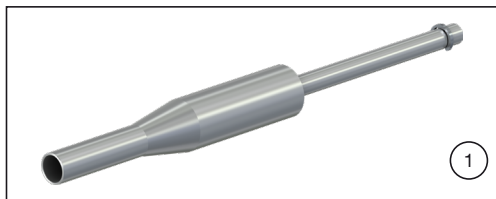
The plug connectors are watertight in accordance with the product specific IP protection class.

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

**产品使用说明或技巧****Useful hint or tip**

欲了解更多技术参数,请参阅产品目录。

For further technical data please see the product catalog.



工具准备

(ill. 1)
 拔出工具
 CT-NET-AWZ, 订货号 33.3048
 (仅用于维修目的)。

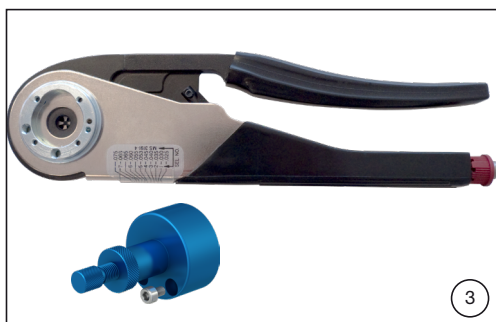
Tools required

(ill. 1)
 Extraction tool
 CT-NET-AWZ, order No. 33.3048
 (For repair purposes only).



(ill. 2)
 铜导电胶带,
 订货号 11012526

(ill. 2)
 CU conductive tape,
 order No. 11012526

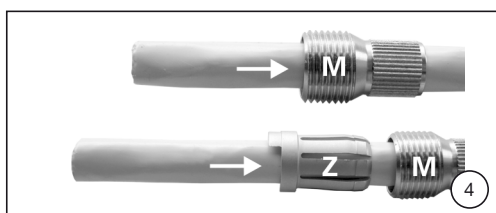


(ill. 3)
 压接钳 CT-M-CZ,
 订货号 33.3800
 以及定位器 MES-CZ,
 订货号 18.3801

(ill. 3)
 Crimping pliers CT-M-CZ,
 Order No. 33.3800
 and locator MES-CZ,
 Order No. 18.3801

i 注意事项:
 操作说明 MA079
www.staubli.com/electrical

i Note:
 Operating instructions MA079,
www.staubli.com/electrical



电缆准备

(ill. 4)

按指示顺序将螺母 M 和锁紧圈 Z 套到电缆上。

电缆直径：
最小 5.5 mm
最大 7.5 mm

Cable preparation

(ill. 4)

Slip nut M and clamp ring Z in the indicated sequence onto the cable.

Cable diameter:
Min. 5.5 mm
Max. 7.5 mm

Tab. 1

| 步骤 Steps | 电缆类型 1 / Cable 1 | 电缆类型 2 / Cable 2 |
|-------------|------------------|--|
| 1 | | |
| 2 | | |
| 3 | | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>3.1</p> </div> <div style="text-align: center;"> <p>3.2</p> </div> <div style="text-align: center;"> <p>3.3</p> </div> </div> |
| 4 | | |

(Tab. 1)

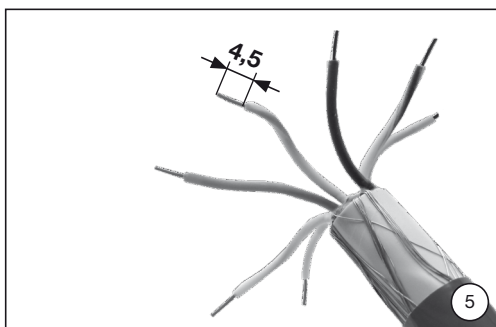
在不损坏屏蔽层的情况下，小心地剥去 18 mm 的电缆外绝缘层。

- 对于 类型 1 电缆，将屏蔽线拉回到外绝缘电缆上，并用 两圈导电胶带固定。
- 对于 类型 2 电缆，切断屏蔽纸。先在外部绝缘层上缠一圈导电胶带 (见3.1)；再将排绕线拉回压在导电胶带上 (见3.2)；最后用两圈导电胶带固定排绕线 (见3.3)。

(Tab. 1)

Without damaging the shielding, carefully strip 18 mm of outer cable insulation.

- For type 1 cable, pull the shield wires back over the outer insulation cable and secure with 2 turns of conductive tape.
- For type 2 cable, cut off the shield paper. Place one turn of conductive tape over outer insulation (3.1). Pull back the drain wire over the conductive tape (3.2) and finally secure the drain wire with 2 turns of conductive tape (3.3).

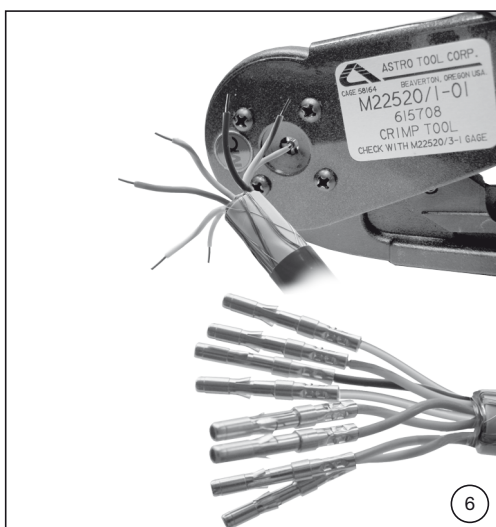


(ill. 5)
展开双绞线, 进行剥线处理, 长度 4.5 mm。

(ill. 5)
Fan out single wires and strip them to 4.5 mm.

压接

Crimping



(ill. 6)
根据导体截面积确定选择器位置 (参见表2)。

(ill. 6)
See Tab. 2 for selector position according to conductor cross section.

Tab. 2

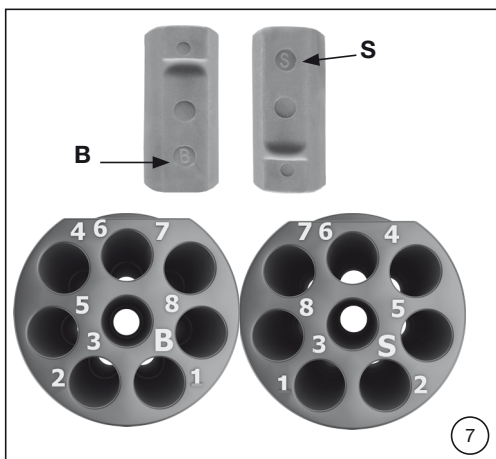
| 导体横截面 Conductor cross section | | 选择器位置 Selector position |
|----------------------------------|-----|----------------------------|
| mm ² | AWG | |
| 0.14 | 26 | 1 |
| 0.25 | 24 | 2 |
| 0.34 | 22 | 3 |
| 0.5 ¹⁾ | 20 | 4 |
| 0.75 ¹⁾ | 18 | 5 |

¹⁾ 最多连接4个触子。

¹⁾ Maximal four wires per connector

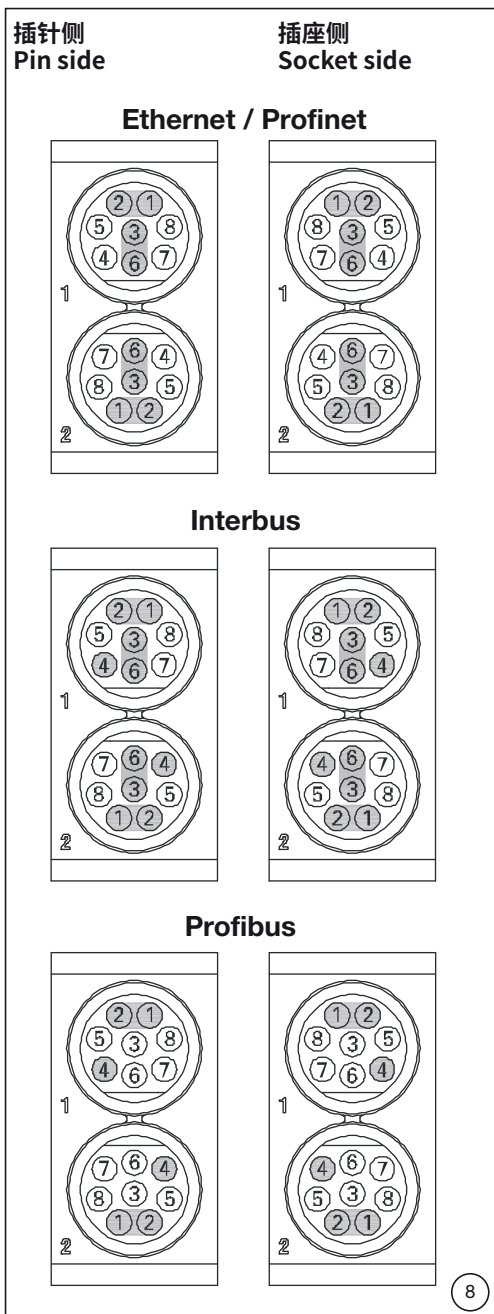
触子装配

Contact assembly



(ill. 7)
插座端标有 **B**, 插头端标有 **S**。
触子编号在背面。
触子将从背面插入。

(ill. 7)
The female insert is marked with a **B**, the pin insert is marked with an **S**.
The contact numbers are on the back side.
The contacts will be inserted from back side.



触子支撑块的触子排列

(ill. 8) 从支撑块背面看, 标有数字一面

| Interbus | |
|----------|---|
| DO | 1 |
| /DO | 2 |
| DI | 3 |
| /DI | 6 |
| COM | 4 |

| Profibus | |
|----------|---|
| Line A | 1 |
| Line B | 2 |
| GND | 4 |

| Ethernet & Profinet | |
|---------------------|---|
| TX+ | 1 |
| TX- | 2 |
| RX+ | 3 |
| RX- | 6 |

CANbus
根据总线规范进行单独配置 Individual configuration according to BUS specifications

Contact arrangement of the contact carrier

(ill. 8) (Seen from the termination side)

配置 4 对 T568A

Tab. 3

| 触子编号 Contact No. | 对号 Pair No. | 颜色 Colour | 颜色 Colour |
|---------------------|----------------|--------------|--------------|
| 1 | 1 | 白色/绿色 | white/green |
| 2 | 1 | 绿色 | green |
| 3 | 2 | 白色/橙色 | white/orange |
| 4 | 3 | 蓝色 | blue |
| 5 | 3 | 白色/蓝色 | white/blue |
| 6 | 2 | 橙色 | orange |
| 7 | 4 | 白色/棕色 | white/brown |
| 8 | 4 | 棕色 | brown |

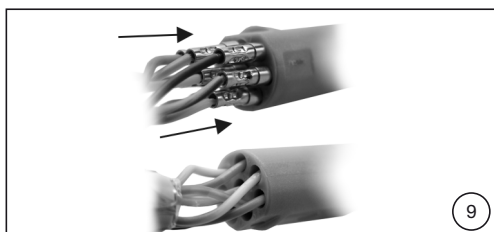
Configuration with 4 pairs T568A

配置 4 对 T568B

Tab. 4

| 触子编号 Contact No. | 对号 Pair No. | 颜色 Colour | 颜色 Colour |
|---------------------|----------------|--------------|--------------|
| 1 | 1 | 白色/橙色 | white/orange |
| 2 | 1 | 橙色 | orange |
| 3 | 2 | 白色/绿色 | white/green |
| 4 | 3 | 蓝色 | blue |
| 5 | 3 | 白色/蓝色 | white/blue |
| 6 | 2 | 绿色 | green |
| 7 | 4 | 白色/棕色 | white/brown |
| 8 | 4 | 棕色 | brown |

Configuration with 4 pairs T568B

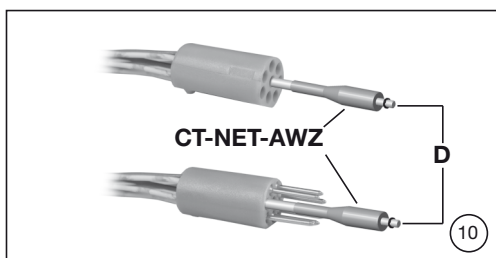


(ill. 9) 将触子推入标有数字的一侧, 直到其锁定到位。

⚠ 注意
未安装触子的孔位使用堵头封闭
CT-NET-BS, 订货号 33.9589

(ill. 9) Push the contacts through the number indicated side until they lock into place.

⚠ Attention
Unused contact chambers should be closed with blind plugs
CT-NET-BS, order No. 33.9589

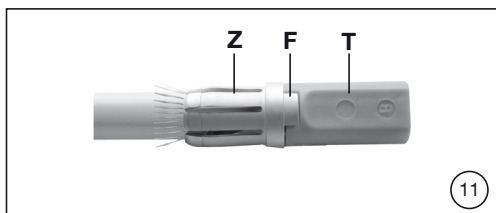


触子拆卸

(ill. 10)
从正面将拔出工具 CT-NET-AWZ 插入触子孔位, 直到听到咔哒声。然后推动同芯棒 D 将触子从背面推出。

Contact disassembly

(ill. 10)
Insert the extraction tool CT-NET-AWZ from the front side into the contact insert until you hear a click. Then with the drift D push out the contact.

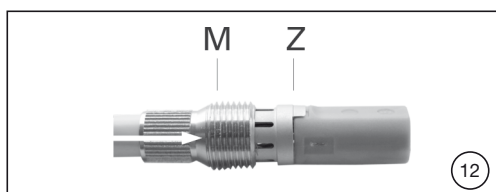


触子支撑块装配

(ill. 11)
将锁紧圈 Z 连接到触子支撑块 T。引导部分 F 放在触子支撑块 T 的平坦区域上。

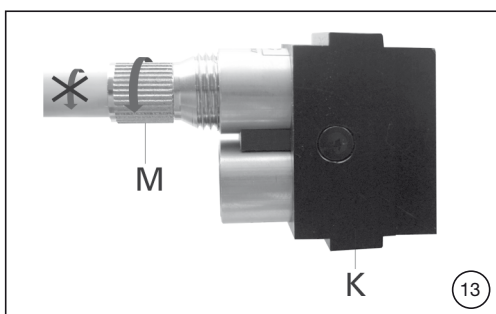
Assembly in contact carrier

(ill. 11)
Connect the clamp ring Z to the contact carrier T. Place the leading part F over the flat area of the contact carrier T.



(ill. 12)
将螺母 M 推到锁紧圈 Z 上。

(ill. 12)
Push nut M over the clamp ring Z.



(ill. 13)
将整个装置插入触子支撑块 K。确保扁平部件的位置正确。握住电缆的同时拧紧螺母 M, 以避免电缆旋转。

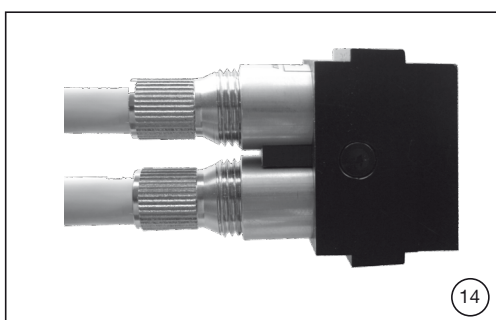
(ill. 13)
Insert the whole unit in the contact carrier K. Ensure that the position of the flat part is correct. Tighten nut M while holding the cable to avoid any cable rotation.

⚠ 注意

只能用手拧紧螺母(不使用工具)。拧紧螺母后可见的螺纹量取决于电缆外径。

⚠ Attention

Tighten the nut only by hand (without tool). The amount of thread that is visible after tightening the nut depends on the outside diameter of the cable.



(ill. 14)
用同样的方法安装第二个触子支撑块即可。如此数据传输模块就安装好了。

(ill. 14)
Mount the second contact insert in the same way.
The contact carrier is now ready to use.

⚠ 注意

压接并组装到触子支撑块中之后, 以及在首次连接之前, 请检查插头是否损坏(弯曲、断裂...)

⚠ Attention

After crimping and assembly into the contact carriers, and before first connection, check that the plugs are not damaged (bent, broken...)