

MA092 (中_英) 安装说明

适用于50 - 62.5/125 μ m GI光纤的GOF连接器

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MA092 (cn_en) Assembly instructions

GOF contacts for 50 - 62.5/125 μ m GI fiber

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插座接触子
Socket contact
CT-B/GOF 33.0171



头接触子
Pin contact
CT-S/GOF 33.0571

GOF连接器特别适用于50/125 μ m或62.5/125 μ m的GI光纤电缆和CT-E-4GOF系列绝缘子。

The GOF contacts are optimized for applications with 50/125 μ m or 62.5/125 μ m GI optical fiber and insulators in the CT-E-4GOF range.

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 60417-6182

安装需电气专业知识 Installation, electrotechnical expertise

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。

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 Caution, risk of electric shock

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

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

最终应用时，还应检查电击防护。

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

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。

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 Do not disconnect under load

仅当额定电压不超过 AC 1000 V / DC 1500 V 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。

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.

安全须知**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。

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。

未插入的连接器的必须防潮防尘。被污染的公母连接器不应插入使用。

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.

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.

工具要求

制备GI光纤连接器推荐使用以下工具（应要求提供）。

Tools required

The following tools are recommended for assembling the contacts with GI-cables (available on request).

描述 Description	型号 Type	订货号 Order No.
六角压线钳 Hexagonal crimping pliers	CT-CZ/GOF	33.3050
剥线钳 0,18 mm Insulation stripper 0.18 mm	CT-AIWZ/GOF 0.18	33.3051
剥线钳 0,3 mm Insulation stripper 0.3 mm	CT-AIWZ/GOF 0.3	33.3052
光纤切割工具 Fiber cleaving tool	CT-FRST/GOF	33.3053
双组分粘合剂 Two-component adhesive	CT-EP/GOG 4G	33.3054
一次性注射器和针头 One-way syringe with needle	CT-SPRI 3ML	33.3055
研磨纸 5 μm Polishing sheet 5 μm	CT-PFLM 5UM	33.3056
研磨纸 0,3 μm Polishing sheet 0.3 μm	CT-PFLM 0.3UM	33.3057
固化炉 Heat oven	CT-AHO/GOF	33.3058
研磨盘 Polishing disc	CT-PS/GOF	33.3059
200倍显微镜 200x microscope		
	CT-MK/GOF 200	33.3065
适配器/Adapter 	CT-WA/GOF	33.3061
切割刀/Cutter		
芳纶剪/Kevlar scissors		

剥电缆

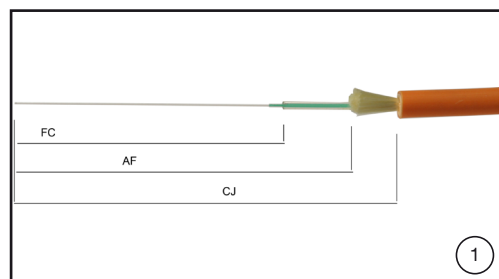
(图 1)

- 切割电缆。
- 用切割刀按照表1的要求将电缆切割成相应长度。
- 用芳纶剪剪短拉力消除线
- 用0.3mm剥线钳剥开光纤护套和二次涂覆层。
- 用0.18mm剥线钳剥开剥离一次涂覆层。
- 用软布擦拭光纤上的残留物（超细纤维布）。

Stripping the cable

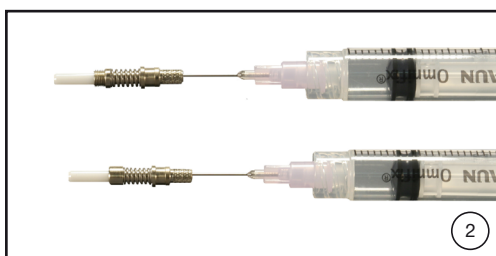
(III. 1)

- Cut the cable to length.
- Remove the cable cladding using the cutter according to the dimensions in Table 1.
- Use the Kevlar cutter to shorten the strain relief cord.
- Remove the buffer tube and the secondary coating using the 0.3 mm insulation stripper.
- Remove the primary coating using the 0.18 mm insulation stripper.
- Remove any residue on the fiber using a soft cloth (microfiber cloth).



表格1/Tab. 1

剥线长度 Strip lengths		
说明 Description	插座 Socket contact	插头 Pin contact
CJ - 电缆护套 CJ - Cable cladding	40 mm	40 mm
AF - Kevlar Secondary Coating AF-芳纶二次涂层	35 mm	35 mm
FC-涂层	30 mm	30 mm



组装连接器

(图 2)

- 准备适量粘结剂。
- 使用一次性注射器将粘结剂注入连接器。
- 将压接套推到线缆上。

Contact assembly

(ill. 2)

- Prepare an appropriate amount of adhesive.
- Fill the contact with adhesive using the one-way syringe with needle.
- Push the crimp sleeve onto the cable.



(图 3)

将光纤插入注好粘结剂的连接器内，直到端部露出插芯20mm为止。

(ill. 3)

Insert the fiber into the contact until it stops. The end of the fiber should project about 20 mm out of the ferrule.

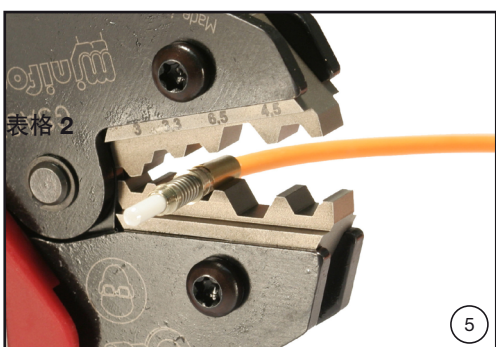


(图 4)

将压接套推过芳纶纤维直至固定处。

(ill. 4)

Push the crimp sleeve over the Kevlar and onto the anchor.



(图 5)

将套有压接套的连接器放入压接钳3.3mm的压接槽口处。

(ill. 5)

Lay the contacts with the crimp sleeve into the 3.3 mm sunken opening on the crimping pliers.

预压接钳，调整连接器位置，然后完全压紧直到听到压接钳解锁声。

Pre-tension the crimping pliers, adjust the contact and close the pliers completely until it unlocks audible.

固化

使用的混合粘结剂在室温下的适用期大约为90分钟。通过高温处理比如使用加热箱或保温柜等可以缩短粘结剂的固化时间。粘结剂完全固化所需的时间可于下表（表2）读取。在粘结剂完全固化后才可以对连接器进行进一步的处理。

Adhesive curing

The adhesive has a pot life of approximately 90 minutes at room temperature. The hardening time of the adhesive can be reduced by increasing the temperature, using a heat box or warming cabinet, for example. The adhesive takes the times given in the table below (Table 2) to harden completely. The contact should only be processed further once the adhesive has hardened completely.

表格 2
Tab. 2

温度 Temperature	时间 Time
20 °C	12 h
80 °C	45 min
100 °C	10 min
120 °C	5 min
150 °C	1 min

将压接好的连接器小心放入加热箱的开口处，避免光纤意外折损。

In order to avoid breakage of the fiber, please insert the crimped contacts very carefully into the openings of the heat box

切纤

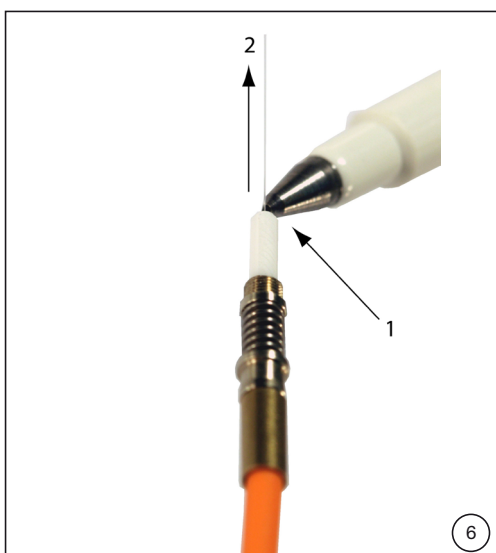
(图 6)

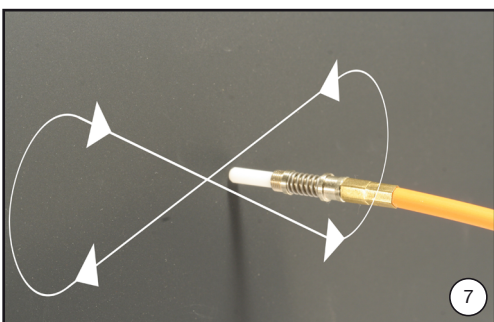
粘结剂固化后，从加热箱中取出连接器。用光纤切割工具将多余的光纤在离插芯端面大约1mm处轻轻割开 (1) 并小心将其垂直 (2) 剥离。

Scratching and breaking

(ill. 6)

Once the adhesive has set, remove the contact from the heat box. Gently scratch the projecting fiber at about 1 mm from the ferrule-end surface using the fiber cleaving tool (1). Remove the fiber under slight axial tension (2).





光纤研磨

(图 7)

使用 $5\ \mu\text{m}$ 抛光片对伸出的光纤端面在低压下小心地进行手动研磨。切勿使用衬垫。

端面抛光

(图 8 - 9)

- 将连接器放入研磨盘并使用 $0.3\ \mu\text{m}$ 的研磨片在坚硬的底板比如玻璃板上进行研磨抛光。
- 使用显微镜检测光纤端面的质量。
- 如果光纤的核心部位有划痕, 重复研磨抛光。抛光过程中的残留物可以使用软布(超细纤维布)擦拭掉。
- 拧开插座上的插芯套筒, 为光纤端面盖上防尘帽以防污染。



Fiber grinding

(ill. 7)

Grind off manually and carefully the protruding fiber end with $5\ \mu\text{m}$ polishing sheet and with low pressure. Do not use an underlayment.

Fiber endface polishing

(ill. 8 - 9)

- Put the contact into the polishing disc and polish the fiber with the $0.3\ \mu\text{m}$ polishing sheet on a hard base, for example a glass plate.
- Check the quality of the fiber-end surface with the microscope.
- If there are scratches near the core of the fiber, repeat the polishing process. Any residue produced by the polishing process can be removed using a soft cloth (microfiber cloth).
- Unscrew the ferrule sleeve of the socket contact and protect the fiber-end surface from dirt with a dust cover.

注意事项/Notes:

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