



## INTERCONTEC 723 系列 混合型连接器 M23

INTERCONTEC SERIES 723  
HYBRID CONNECTORS M23

htec  
SpeedTec



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## 首款带总线模块的独特混合型连接器

借助 5 个电源和多达 6 个信号端子, 2 针和 6 针数据以及一个以太网元件, 全速发展。后者凭借其易于组装、单独屏蔽的以太网元件, 可提供实时模式下的快速工业以太网连接并挖掘全新可能性。该系统首次满足了对更高电气强度的要求。以菊花链式分散控制伺服电机为例, 可以运行 850 VDC。因此, M23 尺寸的超级混合型连接器还可以处理 30 A 的电流和高达 4 mm<sup>2</sup> 的导线横截面。

卓越的技术数据不言而喻, 以及众多可用的版本: 无论您喜欢直型、弯式还是连续可旋转的连接器外壳 - 这款 htec 连接器均采用获得专利的 SpeedTec 快锁系统, 是自动化技术应用领域的明星。

## The unique and first hybrid connector with bus modul

Full speed ahead with five power and up to six signal contacts plus a 2- and a 6-pin data and a ethernet element. The latter provides for fast Industrial Ethernet connections in real time mode and opens completely new possibilities with its ready-to-assemble, separately shielded Ethernet element. For the first time this system meets requirements for higher electric strength. When daisy-chaining decentrally controlled servo motors for example, it is possible to run 850 VDC. Therefore the super-hybrid connector size M23 can also handle 30 A of current and a wire cross section up to 4 mm<sup>2</sup>.

The superior technical data speak for themselves as well as the many versions that are available: No matter if you prefer straight, angled or continuously rotatable connector housings – this htec connector with the patented SpeedTec fast-lock system is the new star on the horizon for applications in automation technology.

可通过各种现场总线系统实现闪电般的数据传输。

**Lightning fast data transmission possible with a variety of field bus systems.**



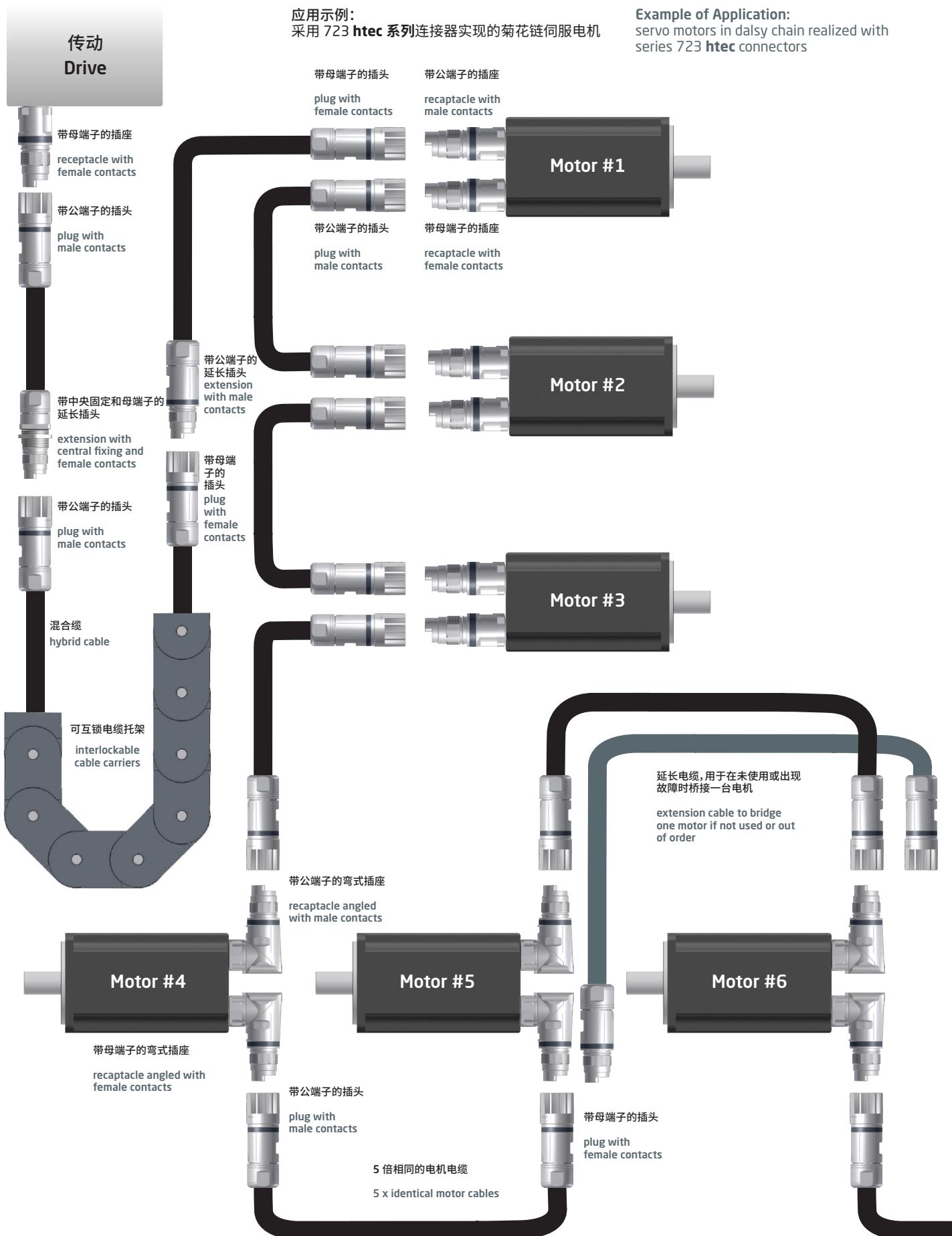
CANopen

DeviceNet

EtherCAT Technology Group



PROFINET  
IBUS



# 组合概述

Combinations Overview

## SpeedTec

QUICK LOCKING SYSTEM

插头  
plug 页码 12  
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穿板式连接器  
Bulkhead connectors 页码 20  
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延长插头  
extensions 页码 13  
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直式插座  
receptacles straight 页码 22  
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绝缘塑芯  
insulation inserts

10 针母端  
10-pin female  
 $7 \times \varnothing 2 \text{ mm } (6+\text{PE}) + 3 \times \varnothing 1 \text{ mm}$



$7 \times 4 \text{ mm}^2 + 3 \times 1,5 \text{ mm}^2$

11 针母端  
11-pin female  
 $5 \times \varnothing 2 \text{ mm } (4+\text{PE}) + 6 \times \varnothing 1 \text{ mm}$



$5 \times 4 \text{ mm}^2 + 6 \times 1,5 \text{ mm}^2$

7 针母端  
7-pin female  
 $5 \times \varnothing 2 \text{ mm } (4+\text{PE}) + 2 \times \varnothing 1 \text{ mm}$



$5 \times 4 \text{ mm}^2 + 2 \times 1,5 \text{ mm}^2$

8 针母端  
8-pin female  
 $4 \times \varnothing 2 \text{ mm } (3+\text{PE}) + 4 \times \varnothing 1 \text{ mm}$



$4 \times 4 \text{ mm}^2 + 4 \times 1,5 \text{ mm}^2$

以太网元件 Cat-5, 4 路, 母端子  
ethernet element Cat-5, 4-way, female contacts



$4 \times 0,34 \text{ mm}^2$

数据元件 Cat-5, 2 路, 母端子  
data element Cat-5, 2-way, female contacts



$2 \times 1 \text{ mm}^2$

数据元件 Cat-5, 4 路, 母端子  
data element Cat-5, 4-way, female contacts



$4 \times 0,34 \text{ mm}^2$

$2 \times 0,34 \text{ mm}^2 + 2 \times 1 \text{ mm}^2$

数据元件 Cat-5, 6 路, 母端子  
data element Cat-5, 6-way, female contacts



$6 \times 0,34 \text{ mm}^2$

带压接终端的转向公端  
turned male contacts with crimp termination

**SpeedTec**

QUICK LOCKING SYSTEM

绝缘塑芯  
insulation inserts10 针公端  
10-pin male  
 $7 \times \emptyset 2 \text{ mm } (6+\text{PE}) + 3 \times \emptyset 1 \text{ mm}$  $7 \times 4 \text{ mm}^2 + 3 \times 1,5 \text{ mm}^2$ 11 针公端  
11-pin male  
 $5 \times \emptyset 2 \text{ mm } (4+\text{PE}) + 6 \times \emptyset 1 \text{ mm}$  $5 \times 4 \text{ mm}^2 + 6 \times 1,5 \text{ mm}^2$ 7 针公端  
7-pin male  
 $5 \times \emptyset 2 \text{ mm } (4+\text{PE}) + 2 \times \emptyset 1 \text{ mm}$  $5 \times 4 \text{ mm}^2 + 2 \times 1,5 \text{ mm}^2$ 8 针公端  
8-pin male  
 $4 \times \emptyset 2 \text{ mm } (3+\text{PE}) + 4 \times \emptyset 1 \text{ mm}$  $4 \times 4 \text{ mm}^2 + 4 \times 1,5 \text{ mm}^2$ 以太网元件 Cat-5, 4 路, 公端子  
ethernet element Cat-5, 4-way, male contacts $4 \times 0,34 \text{ mm}^2$ 数据元件 Cat-5, 2 路, 公端子  
data element Cat-5, 2-way, male contacts $2 \times 1 \text{ mm}^2$ 数据元件 Cat-5, 4 路, 母端子  
data element Cat-5, 4-way, female contacts $4 \times 0,34 \text{ mm}^2$  $2 \times 0,34 \text{ mm}^2 + 2 \times 1 \text{ mm}^2$ 数据元件 Cat-5, 6 路, 公端子  
data element Cat-5, 6-way, male contacts $6 \times 0,34 \text{ mm}^2$ 带压接终端的转向公端  
turned male contacts with crimp termination

### DIN EN ISO 9001:2015

#### 质量

根据 DIN EN ISO 9001:2015 质量管理体系,为全球用户提供符合标准的质量。

根据这些国家和国际标准进行的资格认证正在 Niederwinkling 的内部测试实验室进行。

在许多方面都超过国家和国际标准的严格且特殊的 Intercontec 要求基于特定公司标准而设定,并通过 Intercontec 实验室中的真实测试进行记录和验证。连接器组件的高自动化水平以及生产过程中的实时控制提供了非常高的工艺可靠性和出色质量。

所有经过压接机加工的端子都经过拔出力和压接质量测试。定期进行显微切片测试和插接次数测试。

在生产过程中,在 IP 防护、插针配置、连续性和插接测试方面集成了实时控制功能,可确保我们的电缆组件具有出色的性能。

#### 产品认证

请在以下位置查找所有相关产品认证:

<https://www.te.com/global-en/products/brands/intercontec.html>

#### Quality

The quality management system according to DIN EN ISO 9001:2015 provides standard conforming quality for users worldwide.

Qualifications for certifications according to these national and international standards are being performed at the in-house test laboratory in Niederwinkling.

Very high, special INTERCONTEC demands, which surpass national and international standards in many regards are set in specific company standards, documented and verified with real life tests in the INTERCONTEC laboratory. The high automation level of the connector assembly with real-time control during production provides highest process liability and optimum quality.

All contacts that are processed with a crimp machine are extraction force and crimp quality tested. In regular intervals microscopic micro-section tests and mating cycle tests are conducted.

Integrated real-time controls during production in terms of IP protection, pin configuration, continuity and mating tests guarantee optimum performance of our cable assemblies.

#### Product Certifications

Please find all relevant product certificates under:

<https://www.te.com/global-en/products/brands/intercontec.html>

### DIN 60529

### IP 66/67

#### IP 防护等级符合 EN 60529

除非另有特别说明,否则所有 Intercontec 连接器均具有 IP 66/67 防护等级。根据设计规格,连接器必须能够抵御限制性能的环境影响(灰尘、湿度、清洁溶剂等)。

(参见附录中的表格)

#### IP Protection Rating according to EN 60529

All INTERCONTEC connectors are IP 66/67 rated unless specifically stated otherwise. According to the design specification connectors have to be protected against environmental influences that limit the performance (dust, humidity, cleaning solvents, etc.).

(see tables in the appendix)

**DIN EN ISO 60512****屏蔽和电磁兼容性 (EMC)**

Intercontec 屏蔽层涂抹在可同轴旋转 360° 的外壳上, 能够提供出色的电磁兼容性。根据 EMC 法规, 设备必须满足以下标准:

1. 电磁干扰必须限制在可完成预期操作的范围内。
2. 设备必须提供适当的抗电磁干扰电阻, 以确保能够完成预期操作。

**Shielding and Electromagnetic Compatibility (EMC)**

The INTERCONTEC shielding rests on the housing coaxially 360° which provides optimum electromagnetic compatibility. According to legal EMC regulations devices must fulfill the following standards:

1. Electromagnetic interference must be limited to the degree that the intended operation is possible.
2. Devices must provide an appropriate resistance against electromagnetic interference to ensure the intended operation is possible.

**载流量**

有关载流量的所有规格均在 Intercontec 实验室中根据 DIN EN 60512 确定。在此过程中, 将创建一个载流量图表(降额曲线), 其中显示了同时流经所有端子的最大连续电流。

温度上限由端子和绝缘材料的热特性确定。环境温度与工作电流引起的温度上升值之和不得超过连接器的温度限值。

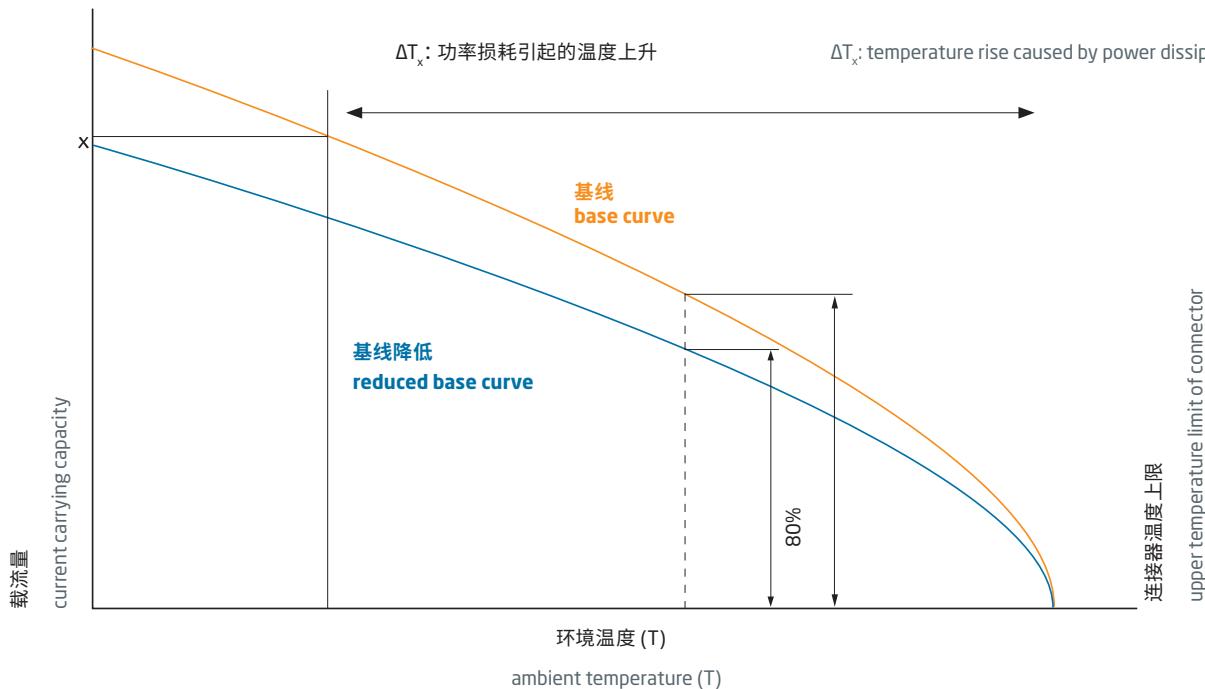
载流量不是一个恒定值, 而是随着环境温度的升高而降低。

**Current Carrying Capacity**

All specifications regarding electric current carrying capacity were determined in the INTERCONTEC laboratory according to DIN EN 60512. In this process a current carrying capacity diagramm (derating curve) is created, which shows the maximum continuous current flowing through all contacts simultaneously.

The upper temperature limit is defined by the thermal characteristics of contact and insulation material. The sum of ambient temperature and the temperature rise caused by the operating current must not exceed the temperature limit of the connector.

The current carrying capacity is not a constant value, but decreases with rising ambient temperature.



# 技术数据

## Technical Data

### 材料

外壳	镀镍黄铜, 锌压铸, 涂塑	根据应用的不同, 金属外壳的材料是黄铜或锌压铸。锌压铸用于较大尺寸的零件, 黄铜主要用于圆形零件。体积较小的金属外壳上的特殊塑料涂层旨在减轻连接器重量。
联接螺母	镀镍黄铜, 镀镍压铸锌	
绝缘塑芯	PA/PBT, UL 94/V0	对于连接器的绝缘塑芯, 主要使用 PBT 和高质量 PA 变体, 特别适用于高应力技术压铸件。这种塑料具有非常好的化学、电气和机械性能。
端子	镀金黄铜	端子特性主要取决于材料。 特别重要的是: ▶ 稳定性和灵活性特性 ▶ 导电性 ▶ 最高工作温度 ▶ 成形性
密封	FKM/HNBR	必须使用特殊密封件来满足耐油、耐油脂、耐溶剂、耐酸、耐碱和耐化学物以及极端温度的工业要求。在 Intercontec, 这种标准材料是氟橡胶 [Viton]。
	EPDM	对于需要耐候、抗臭氧、抗紫外线和耐 -50°C 低温的特殊户外应用, 我们使用三元乙丙橡胶 (EPDM)。
夹圈	镀镍压铸锌, 镀镍 黄铜	

### Materials

Housing	brass nickel-plated, zinc diecast, plastic coated	Depending on the application the material of the metal housing is either made of brass or zinc diecast. Zinc diecast is used for larger lot sizes and brass primarily for round parts. Special plastic coats on metal housings with reduced volume are designed to reduce the connector weight.
Coupling Nut	brass nickel-plated, zinc diecast nickel- plated	
Insulation Insert	PA/PBT, UL 94/V0	For insulation inserts of connectors mostly PBT and high-quality PA-varients are used that are especially suitable for highly stressed technical diecast parts. This plastic has very good chemical, electrical and mechanical properties.
Contacts	brass gold plated	The contact characteristics depend mainly on the materials. Especially important are: ▶ stability and flexibility characteristics ▶ electrical conductivity ▶ max. operating temperature ▶ formability
Sealing	FKM/HNBR	Special seals have to be used to cope with industrial requirements for resistance against oil, grease, solvents and acids, bases and chemicals as well as extreme temperatures. At INTERCONTEC the standard material is fluor rubber [Viton].
	EPDM	For special outdoor applications, which require weather, ozone, UV and temperature resistance down to -50° C ethylene propylene diene rubber (EPDM) is used.
Clamp Ring	zinc diecast nickel- plated, brass nickel- plated	

### 值符合 VDE 0110/EN 61984, 部件 6.19.2.2

污染度	3
过压类别	III
最大操作高度	2000 m

可根据请求提供单独的 VDE 认证和认可。

### Values according to VDE 0110/EN 61984, part 6.19.2.2

pollution degree	3
over voltage category	III
max. height for operation	2000 m

Individual VDE certifications and accreditations available on request.

## 一般技术数据

端子安装方式	压接
端子版本	通过插件选择公端子或母端子
密封材料	FKM
温度范围	-20 °C 至 130 °C / 从 -50 °C 起可选
防护类型	已连接: IP 66, IP 67 可选: IP 68, IP 69 K
屏蔽	EMC 屏蔽双绞线四通道, 单独屏蔽, 符合 Cat 5 和 ISO / IEC-11801 (2002)E
保护接地	符合 VDE 0627
安全保护	符合 VDE 0623
插接次数	最少 500 次
线径范围	Ø 7.5 – Ø 17.0 mm
连接器外壳接口	法兰 25 x 25 mm, 孔间距 19.8 mm 法兰 28 x 28 mm, 孔间距 22.6 mm M 25 x 1,5 螺纹
连接器方向	直式插座: 方向可调 弯式插座: 330° 连续可调
编码	带彩色环的多个编码
锁定类型	SpeedTec 快速锁定紧固件

## General Technical Data

Contact termination	crimp version
Contact versions	Inserts for male or female contacts choosing
Sealing material	FKM
Temperature range	-20 °C to 130 °C / optional from -50 °C
Protection type	connected: IP 66, IP 67 optional: IP 68, IP 69 K
Shielding	EMC shielding twisted quad, separately shielded acc. Cat 5 and ISO / IEC-11801 (2002)E
Protective ground connection	according to VDE 0627
Safety protection	according to VDE 0623
Mating cycles	min. 500
Clamping range	Ø 7.5 – Ø 17.0 mm
Connector housing interfaces	Flange 25 x 25 mm, hole spacing 19.8 mm Flange 28 x 28 mm, hole spacing 22.6 mm M 25 x 1,5 thread
Connector orientation	Straight receptacles: adjustable orientation Angled receptacles: continuously adjustable 330°
Codings	Multiple codings with colored rings
Locking Types	SpeedTec quick lock fastener

## htec by INTERCONTEC

这是 M23 SpeedTec 连接器首次被修剪为 850 VDC 和 30 A。

混合系统的插件可以固定插针或插槽。四个电源端子是防触摸的。该排列方式由六个信号端子和一个符合以太网标准 Cat 5 的可组装以太网元件构成, 可实现快速实时连接, 也可用于 CAN 总线。这种特殊布局为伺服电机紧凑且强大的控制功能和电源供应开辟了新的可能性。

## htec by INTERCONTEC

This is the first time a M23 SpeedTec connector was trimmed to 850 VDC and 30 A.

The insert of the hybrid system can hold either pins or sockets. The four power contacts are touch-proof. The arrangement is completed by six signal contacts and an assembly-ready ethernet element according to Ethernet standard Cat 5 for fast real-time connections, which can also be used for a CAN Bus. This special layout opens up new possibilities for the compact yet powerful control and power supply of servo motors.

坚固的屏蔽连接器外壳与 SpeedTec 快锁系统连接, 提供高达 20G 的抗冲击性能。IP67 是标准分类, 而 IP 69K 认证可根据客户请求提供。插件上的多个编码可防止错误连接。可以为配对的连接器安装特殊编码环形式的视觉标记。

The robust, shielded connector housings connect with the SpeedTec fast-lock system and provide shock resistance up to 20 G. IP67 is the standard classification while a qualification for IP 69K is available upon customer request. Multiple codings on the insert prevent false connections. Mating connector pairs can be fitted with visual marks in the form of special coding rings.

所有标准型号的连接器外壳均可与当前所有法兰和螺纹版本一起用于 htec 系统。

All standard variations of connector housings are available for the htec system in conjunction with all current flange and thread versions.

## 电气数据

## Electrical Data

	最大连接横截面处的额定电流 rated current at max. connection cross section		额定电压 rated voltage		传输速率 transmission rate	额定绝缘电压 rated insulation voltage	接触电阻 contact resistance	插针数 numbers of pins	端子 Ø contact Ø	最大横截面 max. cross section
	[A] nach VDE	[A] nach UL (USR)	[V] nach VDE	[V] nach UL (USR)	[kV]	[mΩ]		[mm]	[mm²]	
7		30 / 1,2	30 / 1,2	630 / 30 AC 850 / 50 DC	750 / 50 AC 890 / 50 DC	6 / 1,5	3 / 5	4+PE+2	2 / 1	4 / 1,5
8		25 / 2	30 / 1,2	630 / 460 AC 850 / 460 DC	750 / 460 AC 890 / 460 DC	6 / 4	3 / 5	3+PE+4	2 / 1	4 / 1,5
10		25 / 1,2	24 / 1,2	630 / 30 AC 850 / 50 DC	750 / 50 AC 890 / 50 DC	6 / 1,5	3 / 5	6+PE+3	2 / 1	4 / 1,5
11		30 / 1,2	30 / 1,2	630 / 30 AC 850 / 50 DC	750 / 50 AC 890 / 50 DC	6 / 1,5	3 / 5	4+PE+6	2 / 1	4 / 1,5
2		1,2	1,2	30	29,9	100 Mbit/s (Cat 5)	1,5	15	2	1
4		1,2	1,2	30	29,9	100 Mbit/s (Cat 5)	1,5	15	4	0,6
4		1,2	1,2	30	29,9	100 Mbit/s (Cat 5)	1,5	15	4	0,6
2+2		1,2	1,2	30	29,9	100 Mbit/s (Cat 5)	1,5	15	2+2	0,6 / 1
6		1,2	1,2	30	29,9	100 Mbit/s (Cat 5)	1,5	15	6	0,6

## 安全连接

## Secure Connecting

Intercontec 借助机械和视觉编码, 可防止插头、延长插头和插座连接器错误连接。

INTERCONTEC prevents false connecting of plugs, extensions and receptacle connectors with the help of mechanical and visual coding.

## 机械编码:

连接器配合面上的各个几何形状仅允许连接配接连接器。

## Mechanical Codings:

Individual geometries in the mating face of the connector allow connecting mating connectors only.

## 颜色编码:

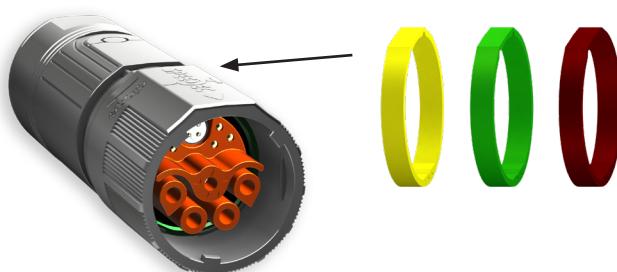
从不同的色环中进行选择, 以便对连接器进行个性化的视觉编码。  
(参见附件第32页)

## Color codings:

Choose from different color rings for individual visual coding of your connectors. (see accessoires p. 32)

提供用于机械编码的其他形状!

Additional shapes for mechanical coding available!



## 电缆组件

## Cable assemblies

电缆的结构、规格和应用领域适应 **htec** 连接器技术范围，并相应进行制造。这在插针布局和屏蔽方面尤为重要。

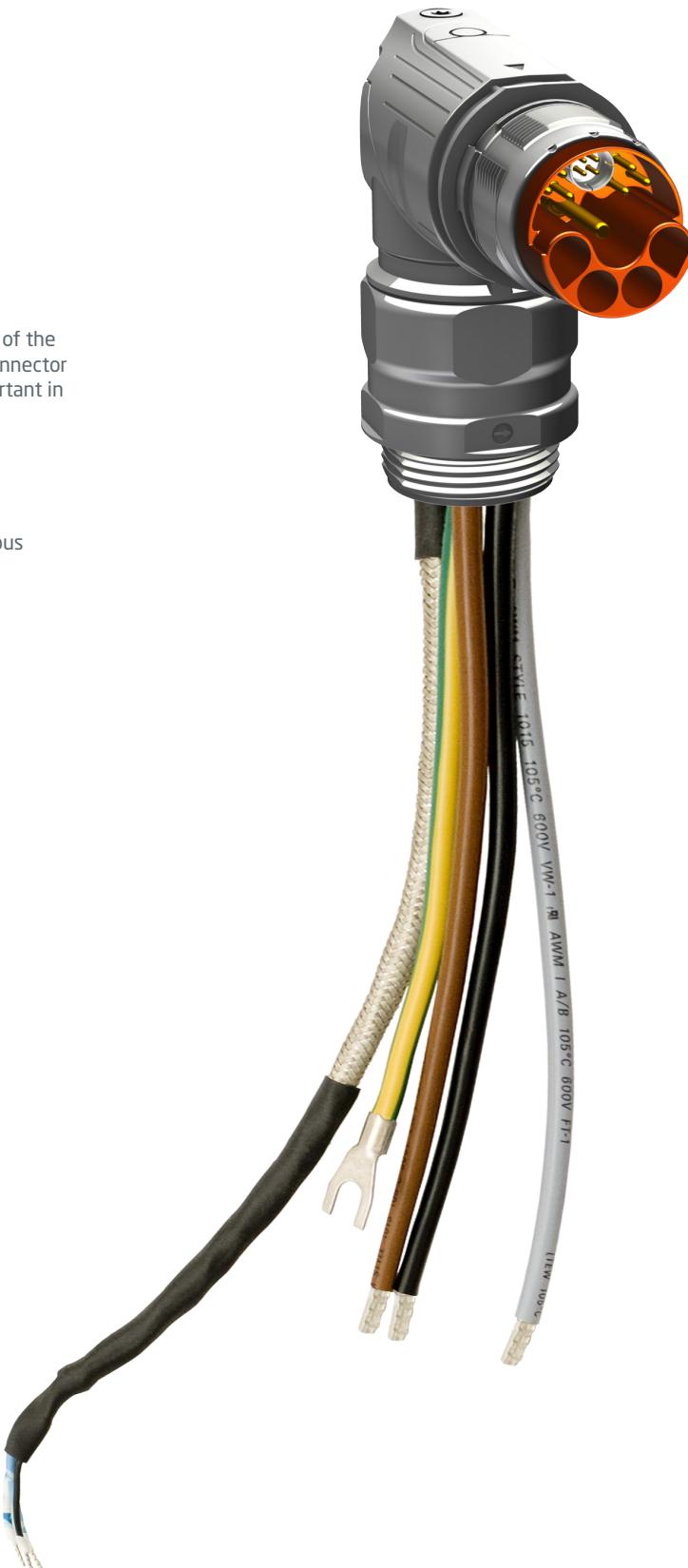
我们提供：

- 混合电缆组件
- 预接线传动元件：  
直式和弯式插座连接器，带各种  
用于伺服电机和驱动控制的编码器、总线和  
电源线。

The architecture, specification and fields of application of the cable are adapted to the technical scope of the **htec** connector and manufactured accordingly. This is particularly important in terms of pin layout and shielding.

We offer:

- hybrid cable assemblies
- pre-wired drive components:  
Straight and angled receptacle connectors with various  
encoder, BUS and power cables for servo motors and  
drive controls.



# 插头和延长插头

Plugs and Extensions

## SpeedTec QUICK LOCKING SYSTEM



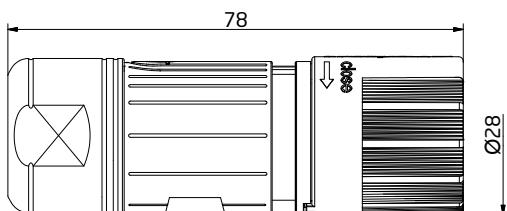
H 51 A ■■■■■ 0100 ■■■■■

### 插头

镀镍, 带 SpeedTec 快速锁定紧固件

### Plug

nickel-plated, with SpeedTec quick lock fastener



包装单位:40 件  
Packaging unit: 40 pieces

**SpeedTec**  
QUICK LOCKING SYSTEM



H 52 A 0100

**延长插头**  
镀镍, 用于 SpeedTec 快速锁定  
紧固件

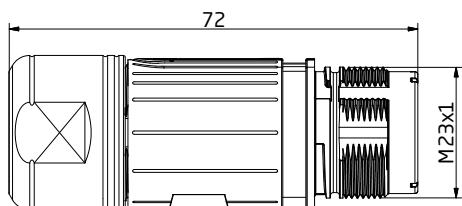
**Extension**  
Nickel-plated, for SpeedTec  
quick lock fastener



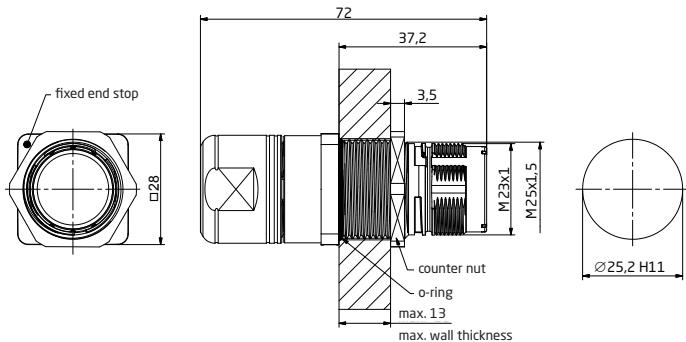
H 52 A 0200

**延长插头**  
镀镍, 用于 SpeedTec 快速锁定紧  
固件, 通过埋头螺母 M25 x 1.5 实  
现中央安装, 固定式后锁闩, 最大  
壁厚 13 mm。

**Extension**  
Nickel-plated, for SpeedTec  
quick lock fastener, central  
mount with counter nut  
M25 x 1.5, fixed latch rear, for  
wall thickness 13 mm max.



包装单位:40 件  
Packaging unit: 40 pieces



包装单位:32 件  
Packaging unit: 32 pieces

# 插头和延长插头

## Plugs and Extensions

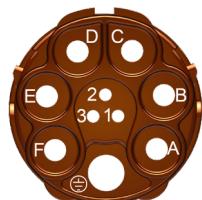
### 绝缘塑芯和端子

202

#### 10 针母端子 P 代码 1

10-pin female contact P  
Code 1  
( $7 \times \varnothing 2 \text{ mm}$  (6 + PE)  
+  $3 \times \varnothing 1 \text{ mm}$ )

插接视图  
mating view

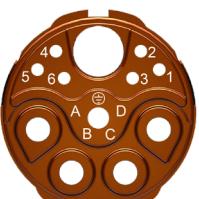


002

#### 11 针母端子 P 代码 1

11-pin female contact P  
Code 1  
( $5 \times \varnothing 2 \text{ mm}$  (4 + PE)  
+  $6 \times \varnothing 1 \text{ mm}$ )

插接视图  
mating view



NN 00

母端子  $\varnothing 2 \text{ mm}$   
不是产品内容的一部分



$\varnothing 2 \text{ mm}$   
开槽, 压接范围  $0.35 - 2.5 \text{ mm}^2$   
slotted, crimping range  $0.35 - 2.5 \text{ mm}^2$

货号 Art. No.

60.270.11

female contact  $\varnothing 2 \text{ mm}$   
Not part of product contents



$\varnothing 2 \text{ mm}$   
开槽, 压接范围  $2.5 - 4.0 \text{ mm}^2$   
slotted, crimping range  $2.5 - 4.0 \text{ mm}^2$

60.272.11

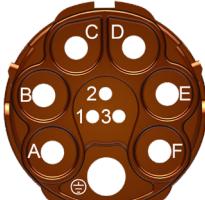
### Insulation Inserts and Contacts

206

#### 10 针公端子 E 代码 1

10-pin male contact E  
Code 1  
( $7 \times \varnothing 2 \text{ mm}$  (6 + PE)  
+  $3 \times \varnothing 1 \text{ mm}$ )

插接视图  
mating view



008

#### 11 针公端子 E 代码 1

11-pin male contact E  
Code 1  
( $5 \times \varnothing 2 \text{ mm}$  (4 + PE)  
+  $6 \times \varnothing 1 \text{ mm}$ )

插接视图  
mating view



NN 00

公端子  $\varnothing 2 \text{ mm}$   
不是产品内容的一部分



$\varnothing 2 \text{ mm}$   
压接范围  $0.35 - 2.5 \text{ mm}^2$   
crimping range  $0.35 - 2.5 \text{ mm}^2$

61.242.11

male contact  $\varnothing 2 \text{ mm}$   
Not part of product contents



$\varnothing 2 \text{ mm}$   
压接范围  $2.5 - 4.0 \text{ mm}^2$   
crimping range  $2.5 - 4.0 \text{ mm}^2$

61.242.11

母端子  $\varnothing 1 \text{ mm}$   
不是产品内容的一部分



$\varnothing 1 \text{ mm}$   
压接范围  $0.14 - 1.0 \text{ mm}^2$   
crimping range  $0.14 - 1.0 \text{ mm}^2$

61.253.11

female contact  $\varnothing 1 \text{ mm}$   
Not part of product contents



$\varnothing 1 \text{ mm}$   
压接范围  $0.5 - 1.5 \text{ mm}^2$   
crimping range  $0.5 - 1.5 \text{ mm}^2$

61.221.11

包装单位:100 件

Packaging unit: 100 pieces

包装单位:100 件

Packaging unit: 100 pieces

**以太网元件**

**提供 11 针选项:**



**以太网元件 Cat-5, 4 针,母端子 P, 406**  
Not part of product contents



**4 x Ø 0,6 mm**

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve  
**40.A487.00**



插接视图  
mating view

包装单位:40 件  
Packaging unit: 40 pieces

**Ethernet element**

**Optional for 11-pin available:**



**以太网元件 Cat-5, 4 针,公端子 E, 406**  
Not part of product contents



**4 x Ø 0,6 mm**

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve  
**40.A486.00**



插接视图  
mating view

货号 Art. No.

**母端子 Ø 0,6 mm,**  
用于以太网元件  
Not part of product contents

**female contact**  
Ø 0,6 mm for  
**ethernet element**  
Not part of product contents



**Ø 0,6 mm**

开槽, 压接范围 0.03 – 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 – 0.34 mm<sup>2</sup>  
**60.278.11**

包装单位:100 件  
Packaging unit: 100 pieces

**公端子 Ø 0,6 mm,**  
用于以太网元件  
Not part of product contents

**male contact**  
Ø 0,6 mm for  
**ethernet element**  
Not part of product contents



**Ø 0,6 mm**

压接范围 0.03 – 0.34 mm<sup>2</sup>  
crimping range 0.03 – 0.34 mm<sup>2</sup>  
**61.252.11**

货号 Art. No.

**电缆固定夹**



**皇冠型线夹**  
电缆夹紧范围 7.5 – 12.0 mm

集成式密封、防扭曲和同轴冠状屏蔽连接。  
无需修剪屏蔽层。

**Crown Clamp**  
cable clamping range 7.5 – 12.0 mm

Integrated seal, anti-twist protection and  
coaxial crown shield connection. No shield  
trimming required.



**薄片夹**  
电缆夹紧范围 7.5 – 12.0 mm

集成式密封、防扭曲和同轴屏蔽连接。

**Lamella Clamp**  
cable clamping range 7.5 – 12.0 mm

Integrated seal, anti-twist protection and  
coaxial shield connection



电缆夹紧范围 9.5 – 14.5 mm



cable clamping range 9.5 – 14.5 mm



电缆夹紧范围 9.5 – 14.5 mm



cable clamping range 9.5 – 14.5 mm



电缆夹紧范围 14.0 – 17.0 mm



cable clamping range 14.0 – 17.0 mm

## 绝缘塑芯和端子

**425**

## 7 针母端子 P 代码 8

7-pin female contact P  
Code 8

(5 x Ø 2 mm (4 + PE)  
+ 2 x Ø 1 mm)

插接视图  
mating view



**602**

## 8 针母端子 P 代码 20

8-pin female contact P  
Code 20

(4 x Ø 2 mm (3 + PE)  
+ 4 x Ø 1 mm)

插接视图  
mating view



**NN 00**

母端子 Ø 2 mm  
不是产品内容的一部分

female contact Ø 2 mm  
Not part of product contents



Ø 2 mm

开槽, 压接范围 0.35 – 2.5mm<sup>2</sup>  
slotted, crimping range 0.35 – 2.5 mm<sup>2</sup>

货号 Art. No.

**60.270.11**



Ø 2 mm

开槽, 压接范围 2.5 – 4.0mm<sup>2</sup>  
slotted, crimping range 2.5 – 4.0 mm<sup>2</sup>

**60.272.11**

## Insulation Inserts and Contacts

**427**

## 7 针公端子 E 代码 8

7-pin male contact E  
Code 8

(5 x Ø 2 mm (4 + PE)  
+ 2 x Ø 1 mm)

插接视图  
mating view



**604**

## 8 针公端子 E 代码 20

8-pin male contact E  
Code 20

(4 x Ø 2 mm (3 + PE)  
+ 4 x Ø 1 mm)

插接视图  
mating view



**NN 00**

公端子 Ø 2 mm  
不是产品内容的一部分

male contact Ø 2 mm  
Not part of product contents



Ø 2 mm

压接范围 0.35 – 2.5mm<sup>2</sup>  
crimping range 0.35 – 2.5 mm<sup>2</sup>

**61.242.11**



Ø 2 mm

压接范围 2.5 – 4.0mm<sup>2</sup>  
crimping range 2.5 – 4.0 mm<sup>2</sup>

**61.243.11**

母端子 Ø 1 mm  
不是产品内容的一部分

female contact Ø 1 mm  
Not part of product contents



Ø 1 mm

开槽, 压接范围 0.14 – 1.0 mm<sup>2</sup>  
slotted, crimping range 0.14 – 1.0 mm<sup>2</sup>

货号 Art. No.

**60.279.11**



Ø 1 mm

开槽, 压接范围 0.5 – 1.5 mm<sup>2</sup>  
slotted, crimping range 0.5 – 1.5 mm<sup>2</sup>

**60.216.11**

公端子 Ø 1 mm  
不是产品内容的一部分

male contact Ø 1 mm  
Not part of product contents



Ø 1 mm

压接范围 0.14 – 1.0 mm<sup>2</sup>  
crimping range 0.14 – 1.0 mm<sup>2</sup>

**61.253.11**



Ø 1 mm

压接范围 0.5 – 1.5 mm<sup>2</sup>  
crimping range 0.5 – 1.5 mm<sup>2</sup>

**61.221.11**

## 以太网元件



**以太网元件 Cat-5, 2 针, 母端子 P, 210**  
不是产品内容的一部分  
ethernet element Cat-5, 2-pin, female contact P, 210  
Not part of product contents

**2 x Ø 1,0 mm**在金属屏蔽套管中配备 2 针绝缘插件  
Insulation insert 2-pin in metal shielding sleeve**40.A711.00**插接视图  
mating view

**母端子 Ø 1 mm**  
不是产品内容的一部分

**Ø 1 mm**开槽, 压接范围 0.14 - 1.0 mm<sup>2</sup>  
slotted, crimping range 0.14 - 1.0 mm<sup>2</sup>**60.279.11**

**female contact Ø 1 mm**  
Not part of product contents

## Ethernet element



**以太网元件 Cat-5, 2 针, 公端子 E, 210**  
不是产品内容的一部分  
ethernet element Cat-5, 2-pin, male contact E, 210  
Not part of product contents

**2 x Ø 1,0 mm**在金属屏蔽套管中配备 2 针绝缘插件  
Insulation insert 2-pin in metal shielding sleeve**40.A722.00**插接视图  
mating view

货号 Art. No.

**公端子 Ø 1 mm**  
不是产品内容的一部分



**male contact Ø 1 mm**  
Not part of product contents



**以太网元件 Cat-5, 4 针, 母端子 P, 216**  
不是产品内容的一部分

**2 x Ø 1,0 mm / 2 x Ø 0,6 mm**在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve**40.A880.00**

**ethernet element Cat-5, 4-pin, female contact P, 216**  
Not part of product contents

插接视图  
mating view

**母端子 Ø 1 mm**  
不是产品内容的一部分

**female contact Ø 1 mm**  
Not part of product contents



**母端子 Ø 0,6 mm,**  
**用于以太网元件**

不是产品内容的一部分

**female contact**  
**Ø 0,6 mm for**  
**ethernet element**

Not part of product contents

**Ø 1 mm**开槽, 压接范围 0.14 - 1.0 mm<sup>2</sup>  
slotted, crimping range 0.14 - 1.0 mm<sup>2</sup>**60.279.11****Ø 0,6 mm**开槽, 压接范围 0.03 - 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 - 0.34 mm<sup>2</sup>**60.278.11**

**以太网元件 Cat-5, 4 针, 公端子 E, 216**  
不是产品内容的一部分

**2 x Ø 1,0 mm / 2 x Ø 0,6 mm**在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve**40.A881.00**

**ethernet element Cat-5, 4-pin, male contact E, 216**  
Not part of product contents

插接视图  
mating view

货号 Art. No.

**公端子 Ø 1 mm**  
不是产品内容的一部分

**male contact Ø 1 mm**  
Not part of product contents



**公端子 Ø 0,6 mm,**  
**用于以太网元件**

不是产品内容的一部分

**male contact**  
**Ø 0,6 mm for**  
**ethernet element**

Not part of product contents

**Ø 1 mm**压接范围 0.14 - 1.0 mm<sup>2</sup>  
crimping range 0.14 - 1.0 mm<sup>2</sup>**61.253.11****Ø 0,6 mm**压接范围 0.03 - 0.34 mm<sup>2</sup>  
crimping range 0.03 - 0.34 mm<sup>2</sup>**61.252.11**

货号 Art. No.

# 插头和延长插头

Plugs and Extensions

## 以太网元件



以太网元件 Cat-5, 4 针,  
母端子 P, 406B  
不是产品内容的一部分



4 x Ø 0,6 mm

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve

ethernet element Cat-5,  
4-pin, female contact P, 406B  
Not part of product contents



插接视图  
mating view

货号 Art. No. 40.B082.00

母端子 Ø 0,6 mm,  
用于以太网元件  
不是产品内容的一部分



Ø 0,6 mm

开槽, 压接范围 0.03 – 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 – 0.34 mm<sup>2</sup>

female contact  
Ø 0,6 mm for  
ethernet element  
Not part of product contents

## Ethernet element



以太网元件 Cat-5, 4 针,  
公端子 E, 406B  
不是产品内容的一部分



4 x Ø 0,6 mm

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve

40.B083.00



插接视图  
mating view

公端子 Ø 0,6 mm,  
用于以太网元件  
不是产品内容的一部分



Ø 0,6 mm

压接范围 0.03 – 0.34 mm<sup>2</sup>  
crimping range 0.03 – 0.34 mm<sup>2</sup>

61.252.11

male contact  
Ø 0,6 mm for  
ethernet element  
Not part of product contents

货号 Art. No. 60.278.11

**以太网元件**



**以太网元件, 6 针,  
母端子 P, 606**  
不是产品内容的一部分



**6x Ø 0,6 mm**

在金属屏蔽套管中配备 6 针绝缘插件  
Insulation insert 6-pin in metal shielding sleeve

**40.A702.00**



插接视图  
mating view

**Ethernet element**



**以太网元件, 6 针,  
公端子 E, 606**  
不是产品内容的一部分



**6 x Ø 0,6 mm**

在金属屏蔽套管中配备 6 针绝缘插件  
Insulation insert 6-pin in metal shielding sleeve

**40.A703.00**



插接视图  
mating view

货号 Art. No.

**母端子 Ø 0,6 mm,  
用于以太网元件**  
不是产品内容的一部分



**Ø 0,6 mm**

开槽, 压接范围 0.03 – 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 – 0.34 mm<sup>2</sup>

**60.278.11**

**female contact  
Ø 0,6 mm for  
ethernet element**  
Not part of product contents

**公端子 Ø 0,6 mm,  
用于以太网元件**  
不是产品内容的一部分



**Ø 0,6 mm**

压接范围 0.03 – 0.34 mm<sup>2</sup>  
crimping range 0.03 – 0.34 mm<sup>2</sup>

**61.252.11**

**male contact  
Ø 0,6 mm for  
ethernet element**  
Not part of product contents

货号 Art. No.

**电缆固定夹**

**Cable Clamps**



**皇冠型线夹**  
电缆夹紧范围 7.5 – 12.0 mm



**Crown Clamp**  
cable clamping range 7.5 – 12.0 mm

集成式密封、防扭曲和同轴冠状屏蔽连接。  
无需修剪屏蔽层。

Integrated seal, anti-twist protection and  
coaxial crown shield connection. No shield  
trimming required.



电缆夹紧范围 9.5 – 14.5 mm  
cable clamping range 9.5 – 14.5 mm



电缆夹紧范围 9.5 – 14.5 mm  
cable clamping range 9.5 – 14.5 mm



**薄片夹**  
电缆夹紧范围 7.5 – 12.0 mm



**Lamella Clamp**  
cable clamping range 7.5 – 12.0 mm

集成式密封、防扭曲和同轴屏蔽连接。

Integrated seal, anti-twist protection and  
coaxial shield connection



电缆夹紧范围 14.0 – 17.0 mm  
cable clamping range 14.0 – 17.0 mm



电缆夹紧范围 14.0 – 17.0 mm  
cable clamping range 14.0 – 17.0 mm

# 直型和弯型穿板式连接器

Bulkhead Connectors Straight and Angled

**SpeedTec**

QUICK LOCKING SYSTEM



**H 54 A** ■■■■■ ■■■■■ **3110** ■■■■■

## 直型穿板式连接器

镀镍, 用于 SpeedTec 快速锁定紧固件; 安装螺纹 M25 x 1.5

## Bulkhead Connector Straight

Nickel-plated, for SpeedTec quick lock fastener; mounting thread M25 x 1.5



**H 54 A** ■■■■■ ■■■■■ **3101** ■■■■■

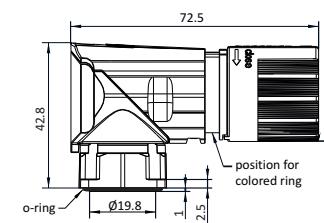
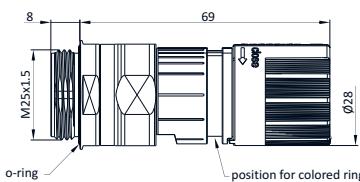
## 可旋转弯型穿板式连接器

镀镍, 用于 SpeedTec 快速锁定紧固件; 法兰安装 25 x 25 mm

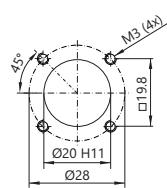
## Bulkhead Connector Angled Rotatable

Nickel-plated, for SpeedTec quick lock fastener; flange mount 25 x 25 mm

Mounting hole



Mounting hole



包装单位:20 件

Packaging unit: 20 pieces

包装单位:20 件

Packaging unit: 20 pieces

**SpeedTec**

QUICK LOCKING SYSTEM



**H 54 A** ■■■■■ ■■■■■ **3100** ■■■■■

**可旋转弯型穿板式连接器**

镀镍, 用于 SpeedTec 快速锁定紧固件; 法兰安装 28 x 28 mm

**Bulkhead Connector****Angled Rotatable**

Nickel-plated, for SpeedTec quick lock fastener; flange mount 28 x 28 mm



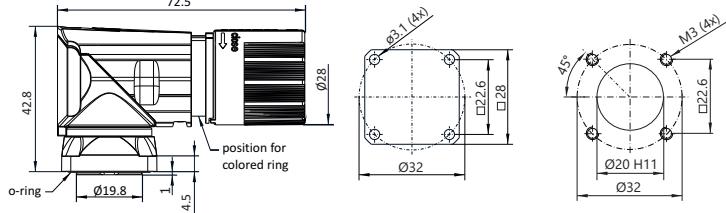
**H 54 A** ■■■■■ ■■■■■ **3102** ■■■■■

**可旋转弯型穿板式连接器**

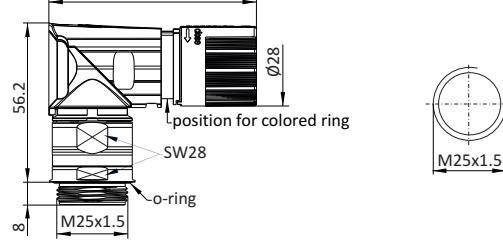
可旋转, 镀镍, 用于 SpeedTec 快速锁定紧固件; 安装螺纹 M25 x 1.5

**Bulkhead Connector****Angled Rotatable**

Rotatable, nickel-plated, for SpeedTec quick lock fastener; mounting thread M25 x 1.5



包装单位: 20 件  
Packaging unit: 20 pieces



包装单位: 20 件  
Packaging unit: 20 pieces

# 直式和弯式插座

Receptacles Straight and Angled

## SpeedTec

QUICK LOCKING SYSTEM



SpeedTec 版本

H 53 C 00 0100

### 直式插座

铬酸钝化, 用于 SpeedTec 快速锁定紧固件, 安装螺纹 M25 x 1,5, 轴向 O 型环密封

### Receptacle Straight

Chromated, for SpeedTec quick lock fastener, mounting thread M25 x 1,5, axial O-Ring seal

## SpeedTec

QUICK LOCKING SYSTEM



SpeedTec 版本

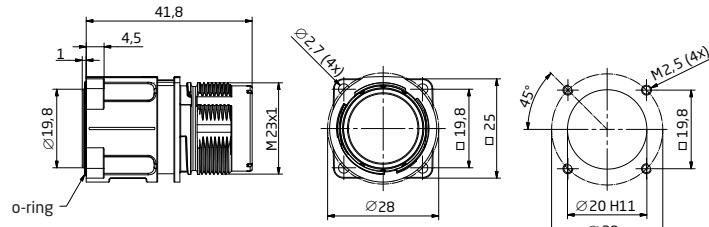
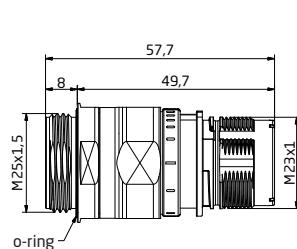
H 53 C 00 0200

### 直式插座

铬酸钝化, 用于 SpeedTec 快速锁定紧固件, 法兰安装 25 x 25 mm, 轴向 O 型环密封

### Receptacle Straight

Cromated, for SpeedTec quick lock fastener, flange mount 25 x 25 mm, axial O-Ring seal



Mounting hole

包装单位:40 件  
Packaging unit: 40 pieces

包装单位:40 件  
Packaging unit: 40 pieces

## SpeedTec

QUICK LOCKING SYSTEM



SpeedTec 版本

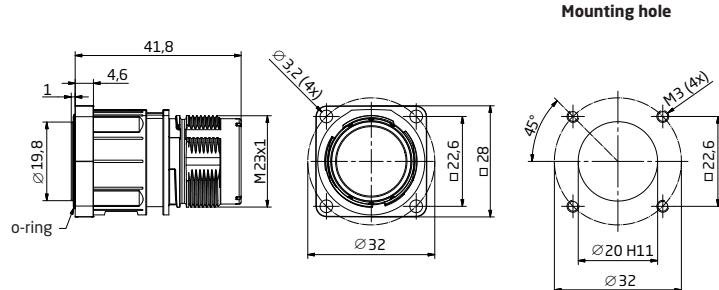
**H 53 C** ■■■■■ ■■■■■ **00 0300** ■■■■■

## 直式插座

铬酸钝化, 用于 SpeedTec 快速锁定紧固件, 法兰安装 28 x 28 mm, 轴向 O 型环密封

## Receptacle Straight

Cromated, for SpeedTec quick lock fastener, flange mount 28 x 28 mm, axial O-Ring seal



包装单位:32 件  
Packaging unit: 32 pieces

## SpeedTec

QUICK LOCKING SYSTEM



类似图示  
illustration similar

SpeedTec 版本

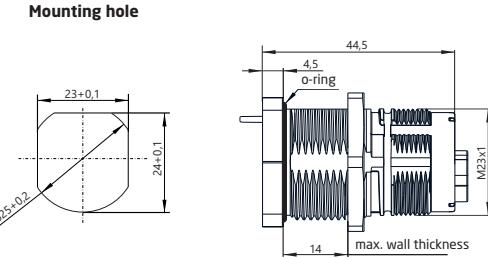
**H 53 C** ■■■■■ ■■■■■ **00 0500** ■■■■■

## 直式插座

铬酸钝化, 用于 SpeedTec 快速锁定紧固件, 后部安装, 带锁定螺母 M25 x 1.5, 轴向 O 型环密封, 法兰 28 x 28 mm

## Receptacle Straight

Cromated, for SpeedTec quick lock fastener, rear mount with lock nut M25 x 1.5, axial O-Ring seal, flange 28 x 28 mm



包装单位:40 件  
Packaging unit: 40 pieces

# 直式和弯式插座

Receptacles Straight and Angled



**SpeedTec**  
QUICK LOCKING SYSTEM

H 56 C ■■■■■ 00 3100 ■■■■■

## 可旋转弯式插座

铬酸钝化, 用于 SpeedTec 快速锁定紧固件, 安装螺纹 M25 x 1,5, 轴向 O 型环密封

## Receptacle Angled, Rotatable

Cromated, for SpeedTec quick lock fastener, mounting thread M25 x 1,5, axial O-Ring seal



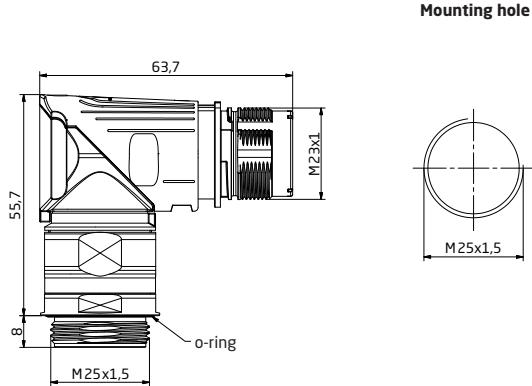
H 56 C ■■■■■ 00 3200 ■■■■■

## 可旋转弯式插座

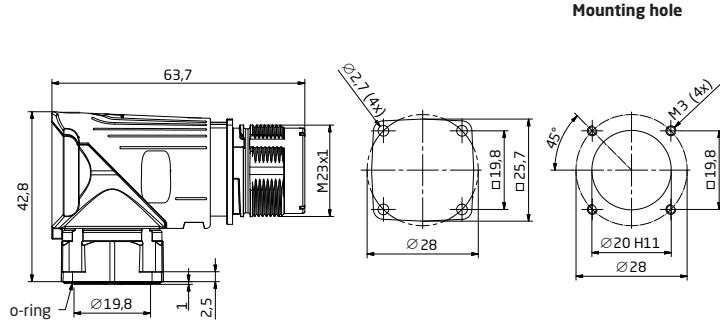
铬酸钝化, 用于 SpeedTec 快速锁定紧固件, 法兰安装 25 x 25 mm, 轴向 O 型环密封

## Receptacle Angled, Rotatable

Cromated, for SpeedTec quick lock fastener, flange mount 25 x 25 mm, axial O-Ring seal



包装单位:40 件  
Packaging unit: 40 pieces



包装单位:40 件  
Packaging unit: 40 pieces

**SpeedTec**  
QUICK LOCKING SYSTEM



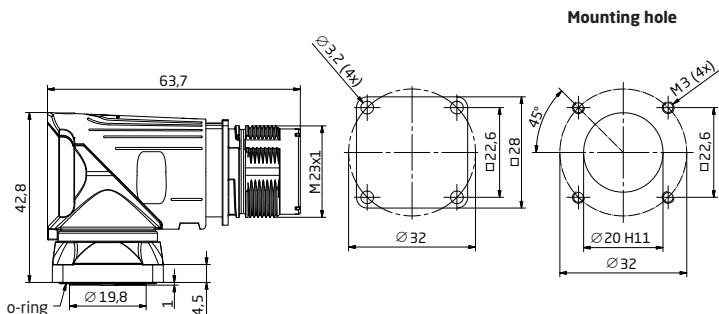
H 56 C ■■■■■ 00 3300 ■■■

**可旋转弯式插座**

铬酸钝化, 用于 SpeedTec 快速锁定紧固件, 法兰安装 28 x 28 mm,  
轴向 O 型环密封

**Receptacle Angled,  
Rotatable**

Cromated, for SpeedTec quick  
lock fastener, flange mount  
28 x 28 mm, axial O-Ring seal



包装单位:32 件

Packaging unit: 32 pieces

# 直式和弯式插座

Receptacles Straight and Angled

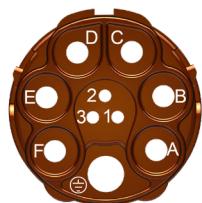
## 绝缘塑芯和端子

204

### 10 针母端子 P 代码 1

10-pin female contact P  
Code 1  
(7 x Ø 2 mm (6 + PE)  
+ 3 x Ø 1 mm)

插接视图  
mating view

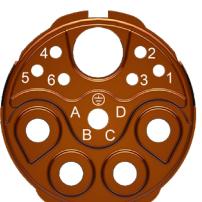


005

### 11 针母端子 P 代码 1

11-pin female contact P  
Code 1  
(5 x Ø 2 mm (4 + PE)  
+ 6 x Ø 1 mm)

插接视图  
mating view



NN 00

母端子 Ø 2 mm  
不是产品内容的一部分

female contact Ø 2 mm  
Not part of product contents



Ø 2 mm  
开槽, 压接范围 0.35 – 2.5mm<sup>2</sup>  
slotted, crimping range 0.35 – 2.5mm<sup>2</sup>

货号 Art. No.

60.270.11



Ø 2 mm  
开槽, 压接范围 2.5 – 4.0mm<sup>2</sup>  
slotted, crimping range 2.5 – 4.0mm<sup>2</sup>

60.272.11

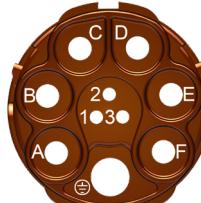
## Insulation Inserts and Contacts

208

### 10 针公端子 E 代码 1

10-pin male contact E  
Code 1  
(7 x Ø 2 mm (6 + PE)  
+ 3 x Ø 1 mm)

插接视图  
mating view



011

### 11 针公端子 E 代码 1

11-pin male contact E  
Code 1  
(5 x Ø 2 mm (4 + PE)  
+ 6 x Ø 1 mm)

插接视图  
mating view



NN 00

母端子 Ø 2 mm  
不是产品内容的一部分

male contact Ø 2 mm  
Not part of product contents



Ø 2 mm  
压接范围 0.35 – 2.5mm<sup>2</sup>  
crimping range 0.35 – 2.5mm<sup>2</sup>

61.242.11



Ø 2 mm  
压接范围 2.5 – 4.0mm<sup>2</sup>  
crimping range 2.5 – 4.0mm<sup>2</sup>

61.243.11

母端子 Ø 1 mm  
不是产品内容的一部分

female contact Ø 1 mm  
Not part of product contents



Ø 1 mm  
开槽, 压接范围 0.14 – 1.0 mm<sup>2</sup>  
slotted, crimping range 0.14 – 1.0 mm<sup>2</sup>

货号 Art. No.

60.279.11



Ø 1 mm  
开槽, 压接范围 0.5 – 1.5 mm<sup>2</sup>  
slotted, crimping range 0.5 – 1.5 mm<sup>2</sup>

60.216.11

公端子 Ø 1 mm  
不是产品内容的一部分

male contact Ø 1 mm  
Not part of product contents



Ø 1 mm  
压接范围 0.14 – 1.0 mm<sup>2</sup>  
crimping range 0.14 – 1.0 mm<sup>2</sup>

61.253.11



Ø 1 mm  
压接范围 0.5 – 1.5 mm<sup>2</sup>  
crimping range 0.5 – 1.5 mm<sup>2</sup>

61.221.11

包装单位:100 件  
Packaging unit: 100 pieces

包装单位:100 件  
Packaging unit: 100 pieces

## 以太网元件

提供 11 针选项:

**以太网元件 Cat-5, 4 针, ethernet element Cat-5, 4-pin, female contact P, 406**  
母端子 P, 406  
Not part of product contents

**4 x Ø 0,6 mm**

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve  
**40.A487.00**

插接视图  
mating view

包装单位:40 件  
Packaging unit: 40 pieces

**母端子 Ø 0,6 mm,**  
用于以太网元件  
Not part of product contents

**Ø 0,6 mm**

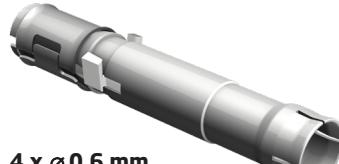
开槽, 压接范围 0.03 – 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 – 0.34 mm<sup>2</sup>  
**60.278.11**

包装单位:100 件  
Packaging unit: 100 pieces

## Ethernet element

Optional for 11-pin available:

**以太网元件 Cat-5, 4 针, ethernet element Cat-5, 4-pin, male contact E, 406**  
公端子 E, 406  
Not part of product contents

**4 x Ø 0,6 mm**

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve  
**40.A486.00**

插接视图  
mating view

货号 Art. No.

包装单位:40 件  
Packaging unit: 40 pieces

**母端子 Ø 0,6 mm,**  
用于以太网元件  
Not part of product contents

**Ø 0,6 mm**

压接范围 0.03 – 0.34 mm<sup>2</sup>  
crimping range 0.03 – 0.34 mm<sup>2</sup>  
**61.252.11**

货号 Art. No.

包装单位:100 件  
Packaging unit: 100 pieces

# 直式和弯式插座

Receptacles Straight and Angled

## 绝缘塑芯和端子

**429**

7 针母端子 P  
代码 8  
7-pin female contact P  
Code 8  
(5 x Ø 2 mm (4 + PE)  
+ 2 x Ø 1 mm)

插接视图  
mating view



**608**

8 针母端子 P  
代码 20  
8-pin female contact P  
Code 20  
(4 x Ø 2 mm (3 + PE)  
+ 4 x Ø 1 mm)

插接视图  
mating view



**NN 00**

母端子 Ø 2 mm  
不是产品内容的一部分

female contact Ø 2 mm  
Not part of product contents



**Ø 2 mm**  
开槽, 压接范围 0.35 – 2.5mm<sup>2</sup>  
slotted, crimping range 0.35 – 2.5 mm<sup>2</sup>

货号 Art. No.

**60.270.11**



**Ø 2 mm**  
开槽, 压接范围 2.5 – 4.0mm<sup>2</sup>  
slotted, crimping range 2.5 – 4.0 mm<sup>2</sup>

**60.272.11**

## Insulation Inserts and Contacts

**422**

7 针公端子 E  
代码 8  
7-pin male contact E  
Code 8  
(5 x Ø 2 mm (4 + PE)  
+ 2 x Ø 1 mm)

插接视图  
mating view



**606**

8 针公端子 E  
代码 20  
8-pin male contact E  
Code 20  
(4 x Ø 2 mm (3 + PE)  
+ 4 x Ø 1 mm)

插接视图  
mating view



**NN 00**

母端子 Ø 2 mm  
不是产品内容的一部分

male contact Ø 2 mm  
Not part of product contents



**Ø 2 mm**  
压接范围 0.35 – 2.5mm<sup>2</sup>  
crimping range 0.35 – 2.5 mm<sup>2</sup>

**61.242.11**



**Ø 2 mm**  
压接范围 2.5 – 4.0mm<sup>2</sup>  
crimping range 2.5 – 4.0 mm<sup>2</sup>

**61.243.11**

**NN 00**

母端子 Ø 1 mm  
不是产品内容的一部分

female contact Ø 1 mm  
Not part of product contents



**Ø 1 mm**  
开槽, 压接范围 0.14 – 1.0 mm<sup>2</sup>  
slotted, crimping range 0.14 – 1.0 mm<sup>2</sup>

货号 Art. No.

**60.279.11**



**Ø 1 mm**  
开槽, 压接范围 0.5 – 1.5 mm<sup>2</sup>  
slotted, crimping range 0.5 – 1.5 mm<sup>2</sup>

**60.216.11**

公端子 Ø 1 mm  
不是产品内容的一部分

male contact Ø 1 mm  
Not part of product contents



**Ø 1 mm**  
压接范围 0.14 – 1.0 mm<sup>2</sup>  
crimping range 0.14 – 1.0 mm<sup>2</sup>

**61.253.11**



**Ø 1 mm**  
压接范围 0.5 – 1.5 mm<sup>2</sup>  
crimping range 0.5 – 1.5 mm<sup>2</sup>

**61.221.11**

# 直式和弯式插座

Receptacles Straight and Angled

# Series 723

## 以太网元件



以太网元件 Cat-5,  
2 针, 母端子 P, 210  
不是产品内容的一部分



**2 x Ø 1,0 mm**

在金属屏蔽套管中配备 2 针绝缘插件  
Insulation insert 2-pin in metal shielding sleeve

**40.A711.00**

ethernet element Cat-5,  
2-pin, female contact P, 210  
Not part of product contents



插接视图  
mating view

**母端子 Ø 1 mm**  
不是产品内容的一部分



**Ø 1 mm**

开槽, 压接范围 0.14 – 1.0 mm<sup>2</sup>  
slotted, crimping range 0.14 – 1.0 mm<sup>2</sup>

**60.279.11**

**female contact Ø 1 mm**  
Not part of product contents

## Ethernet element



以太网元件 Cat-5,  
2 针, 公端子 E, 210  
不是产品内容的一部分



**2 x Ø 1,0 mm**

在金属屏蔽套管中配备 2 针绝缘插件  
Insulation insert 2-pin in metal shielding sleeve

**40.A722.00**

ethernet element Cat-5,  
2-pin, male contact E, 210  
Not part of product contents



插接视图  
mating view

货号 Art. No.

**母端子 Ø 1 mm**  
不是产品内容的一部分



**Ø 1 mm**

压接范围 0.14 – 1.0 mm<sup>2</sup>  
crimping range 0.14 – 1.0 mm<sup>2</sup>

**61.253.11**

**male contact Ø 1 mm**  
Not part of product contents

货号 Art. No.



以太网元件 Cat-5,  
4 针, 母端子 P, 216  
不是产品内容的一部分



**2 x Ø 1,0 mm / 2 x Ø 0,6 mm**

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve

**40.A880.00**

ethernet element Cat-5,  
4-pin, female contact P, 216  
Not part of product contents



插接视图  
mating view

**母端子 Ø 1 mm**  
不是产品内容的一部分



**Ø 1 mm**

开槽, 压接范围 0.14 – 1.0 mm<sup>2</sup>  
slotted, crimping range 0.14 – 1.0 mm<sup>2</sup>

**60.279.11**

**母端子 Ø 0,6 mm,**  
用于以太网元件  
不是产品内容的一部分



插接视图  
mating view

**Ø 0,6 mm**

开槽, 压接范围 0.03 – 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 – 0.34 mm<sup>2</sup>

**60.278.11**



以太网元件 Cat-5,  
4 针, 公端子 E, 216  
不是产品内容的一部分



**2 x Ø 1,0 mm / 2 x Ø 0,6 mm**

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve

**40.A881.00**

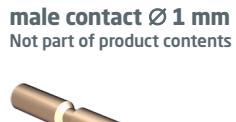
ethernet element Cat-5,  
4-pin, male contact E, 216  
Not part of product contents



插接视图  
mating view

货号 Art. No.

**母端子 Ø 1 mm**  
不是产品内容的一部分



**Ø 1 mm**

压接范围 0.14 – 1.0 mm<sup>2</sup>  
crimping range 0.14 – 1.0 mm<sup>2</sup>

**61.253.11**

**公端子 Ø 0,6 mm,**  
用于以太网元件  
不是产品内容的一部分



插接视图  
mating view

**Ø 0,6 mm**

压接范围 0.03 – 0.34 mm<sup>2</sup>  
crimping range 0.03 – 0.34 mm<sup>2</sup>

**61.252.11**

货号 Art. No.

# 直式和弯式插座

Receptacles Straight and Angled

## 以太网元件



以太网元件 Cat-5,  
4 针, 母端子 P, 406B  
不是产品内容的一部分

ethernet element Cat-5,  
4-pin, female contact P, 406B  
Not part of product contents



4 x Ø 0,6 mm

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve

插接视图  
mating view

货号 Art. No. 40.B082.00

## Ethernet element



以太网元件 Cat-5,  
4 针, 公端子 E, 406B  
不是产品内容的一部分

ethernet element Cat-5,  
4-pin, male contact E, 406B  
Not part of product contents



4 x Ø 0,6 mm

在金属屏蔽套管中配备 4 针绝缘插件  
Insulation insert 4-pin in metal shielding sleeve

40.B083.00

插接视图  
mating view

公端子 Ø 0,6 mm,  
用于以太网元件  
不是产品内容的一部分

female contact  
Ø 0,6 mm for  
ethernet element  
Not part of product contents



Ø 0,6 mm

开槽, 压接范围 0.03 – 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 – 0.34 mm<sup>2</sup>

插接视图  
mating view

货号 Art. No. 60.278.11

公端子 Ø 0,6 mm,  
用于以太网元件  
不是产品内容的一部分

male contact  
Ø 0,6 mm for  
ethernet element  
Not part of product contents



Ø 0,6 mm

压接范围 0.03 – 0.34 mm<sup>2</sup>  
crimping range 0.03 – 0.34 mm<sup>2</sup>

61.252.11

插接视图  
mating view



以太网元件 Cat-5,  
6 针, 母端子 P, 606  
不是产品内容的一部分

ethernet element Cat-5,  
6-pin, female contact P, 606  
Not part of product contents



6x Ø 0,6 mm

在金属屏蔽套管中配备 6 针绝缘插件  
Insulation insert 6-pin in metal shielding sleeve

插接视图  
mating view

货号 Art. No. 40.A702.00



以太网元件 Cat-5,  
6 针, 公端子 E, 606  
不是产品内容的一部分

ethernet element Cat-5,  
6-pin, male contact E, 606  
Not part of product contents



6 x Ø 0,6 mm

在金属屏蔽套管中配备 6 针绝缘插件  
Insulation insert 6-pin in metal shielding sleeve

40.A703.00

插接视图  
mating view

母端子 Ø 0,6 mm,  
用于以太网元件  
不是产品内容的一部分

female contact  
Ø 0,6 mm for  
ethernet element  
Not part of product contents



Ø 0,6 mm

开槽, 压接范围 0.03 – 0.34 mm<sup>2</sup>  
slotted, crimping range 0.03 – 0.34 mm<sup>2</sup>

插接视图  
mating view

货号 Art. No. 60.278.11

母端子 Ø 0,6 mm,  
用于以太网元件  
不是产品内容的一部分

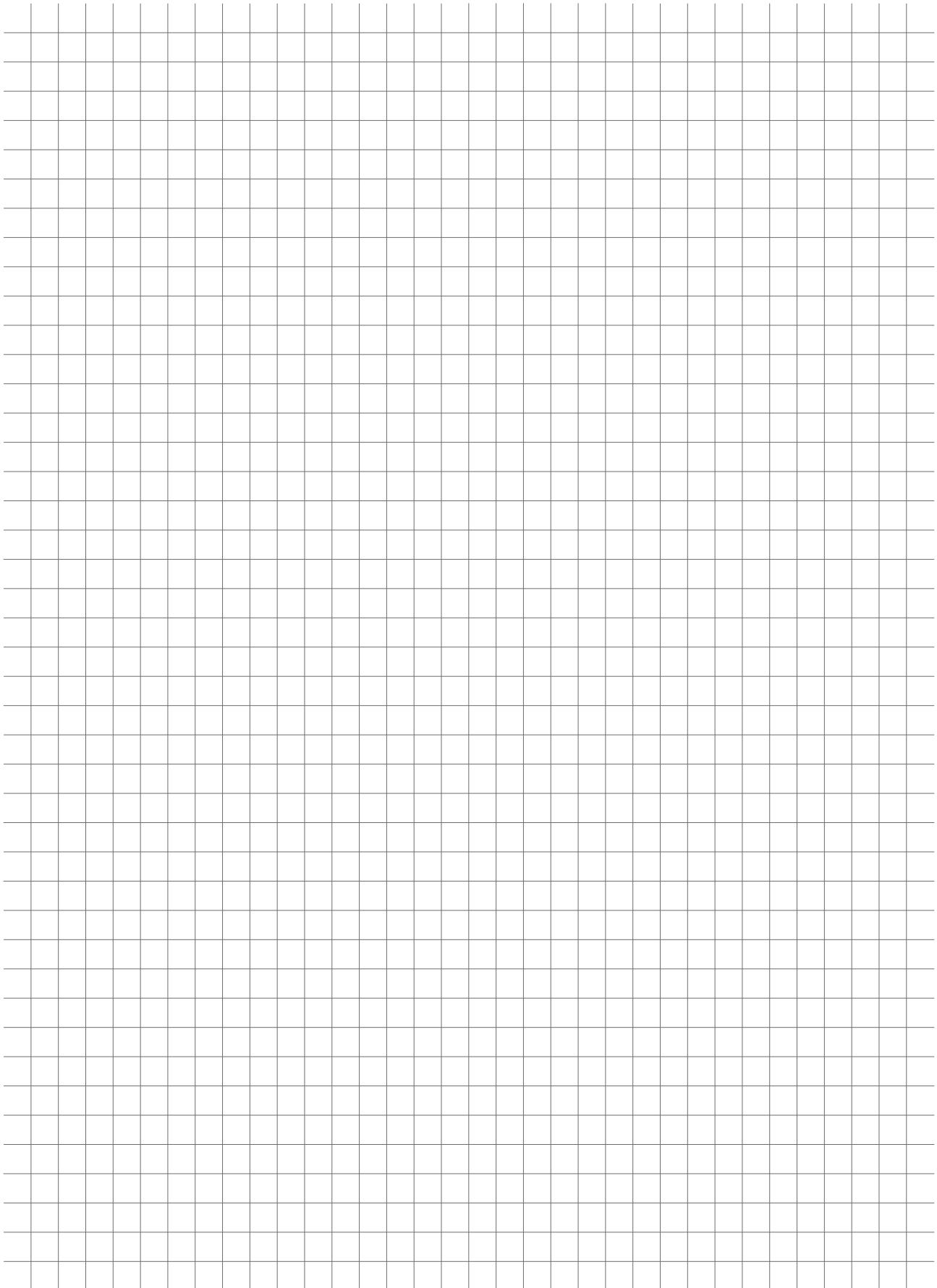
male contact  
Ø 0,6 mm for  
ethernet element  
Not part of product contents



Ø 0,6 mm

压接范围 0.03 – 0.34 mm<sup>2</sup>  
crimping range 0.03 – 0.34 mm<sup>2</sup>

61.252.11



## 附件

### Accessories



8B.091.01

#### 金属保护帽

#### Metal Protection Cap

带 O 型环密封件和导线搭接片，适用于插座和延长插头。

With O-Ring sealing and wire strap for receptacle and extension.



8B.090.00

#### 塑料保护帽

#### Plastic Protection Cap

适用于插头，包括密封件和束带。

Suitable for plug, includes sealing and retaining band.



8B.089.00

#### 塑料保护帽

#### Plastic Protection Cap

带密封唇，适用于插座和延长插头。

With sealing lip, suitable for receptacle and extension.



A2.165.01

#### 弯折保护

Ø 11 mm, 高达 Ø 14 mm, 带夹圈

#### Bend Protection

Ø 11 mm up to Ø 14 mm with clamp ring



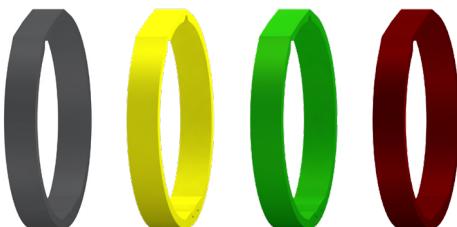
A2.164.01

#### 弯折保护

高达 Ø 11 mm, 带夹圈

#### Bend Protection

up to Ø 11 mm with clamp ring



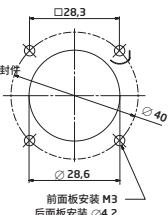
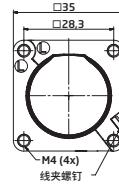
彩色环, 用于连接器外壳的单独标记

Colored rings for individual marking of connector housings

可根据要求提供其他颜色  
(不属于产品内容)

Other colours on request  
(Not part of product contents)

	颜色	color	
A6.022.F03	黑色	black	RAL 9017
A6.022.F04	黄色	yellow	RAL 1021
A6.022.F11	绿色	green	RAL 6032
A6.022.F10	红色	red	RAL 3004



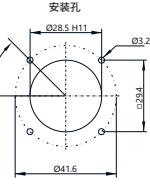
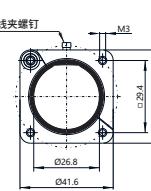
E0.222.02

#### 铰链式金属法兰

带密封环, 可选择与连接器和延长插头一起使用

#### Metal Flange, hinged

with sealing ring, can be used alternatively with connectors and extensions



E0.171.00

#### 铰链式塑料法兰

带密封环, 可选择与插头和延长插头一起使用

#### Plastic Flange, hinged

with sealing ring, can be used alternatively with plugs and extensions



C0.324.00

**数字压接工具 (通过定位器进行压接设置)**

适用于端子线规 0.03 – 2.5 mm<sup>2</sup>。可调节的定位器装置允许处理各种端子。强固型设计，自校准，带外壳和 htec® 定位器，用于 0.6 mm、1 mm 和 2 mm htec® 端子。



C0.201.00

**中型压接工具****Crimp Tool, mid-size**

适用于 Ø 1 mm 和 Ø 2 mm 端子，最大线规 4 mm<sup>2</sup>，包括调位器

for Ø 1 mm and Ø 2 mm contacts max wire gauge 4 mm<sup>2</sup>, includes positioner



C0.265.00

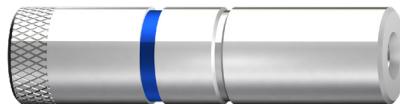
**htec 定位器**

与压接工具 C0.235.00 和 C0.372.00 兼容。是产品内容 C0.324.00 的一部分。

**Locator for htec**

Compatible with crimp tool C0.235.00 und C0.372.00. Part of product contents of C0.324.00.

插槽	Sockets	插针	Pins
<b>60.270.11</b>	<b>61.242.11</b>		
<b>60.279.11</b>	<b>61.253.11</b>		
<b>60.278.11</b>	<b>61.252.11</b>		
<b>60.216.11</b>	<b>61.221.11</b>		



C0.138.00

**定位插件, 用于 Ø 2 mm htec 端子**

与压接工具 C0.201.00 兼容

**Positioning Insert for Ø 2 mm htec-contacts**

Compatible with crimp tool C0.201.00

插槽	Socket	插针	Pin
<b>60.272.11</b>	<b>61.243.11</b>		
<b>60.270.11</b>	<b>61.242.11</b>		



WA10672

**气动压接工具****Pneumatic Crimp Tool**

紧凑的免维护台式工具，压力可达 25 kN，操作压力 6 bar。手动或脚踏式开关。

交付时不带任何压接插件。

Compact maintenance-free table tool for pressure force up to 25 kN, operating pressure 6 bar. Hand- or foot-operated switch.

Delivery without any crimping inserts.



C0.372.00

**适用于 WA10672 的小型数字压接插件****Digital crimp insert, small for WA10672**

包括定位器 C0.242.00 和 C0.243.00。  
关联手动工具 C0.235.00 的压接插件。  
定位器 C0.265.00 不在交付范围内。

Locator C0.242.00 and C0.243.00 included.  
Correlates the crimp inserts of hand tool C0.235.00.  
Locator C0.265.00 not in delivery scope.

**C6.215.00****装配工具**

用于锁定和解锁波纹联接螺母 speedtec。

**Assembly tool**

For locking and unlocking of corrugated coupling nut speedtec.

**C0.323.00****装配钳, 用于安装插件**

用于处理 606/210/216/406B 以太网总线元件。

**Assembly pliers in case with inserts**

For processing of 606/210/216/406B ethernet bus elements.

**VB.019.00****夹紧装置**

用于轻柔地固定 723 插头和延长插头外壳, 以正确安装夹紧环。

**Clamping Device**

For gently fixing 723 plug and extension housings to mount the clamping ring properly.

**C6.169.00****调位器**

用于锁定套筒 210/606 以太网总线元件。

**Positioner**

For locking sleeve 210/606 ethernet bus element.

**C0.320.00****压接工具**

用于处理 210/606 以太网总线元件。

**Crimping Tool**

For working on 210/606 ethernet bus element.

**C1.020.00****扭矩螺丝刀****Torque Screwdriver**

拧紧扭矩为 3 Nm, 适用于装配工具 C6.215.00。

With tightening torque 3 Nm, fits for assembly tool C6.215.00.

## 术语和定义 Terms and Definitions

### 圆形连接器技术

**圆形连接器**用于将电力和信号传输到工业、医疗和环境技术以及航空航天应用中的电机、驱动器和控制装置。

**连接器**不能在有电压和载荷的情况下连接和断开。

**耦合器**可以在有电压和载荷的情况下连接和断开。

### 连接技术

压接是指向下压、凹进和折叠。压接连接已广泛取代焊接连接，并已在实践中提供了出色的性能。DIN 标准 EN 60352 等提供了压接质量规格。压接是电线和压接端子的永久性电气连接。重要的测试标准是压接宽度、压接高度和最大张应力。有两种不同的端子类型可用于压接：

**转向端子**:这是一种非常常见的端子类型。该线规适用于端子的压接套筒。使用可调节压接工具时，应根据制造商的数据设置压接深度。

**冲压端子**:Bandoleer (卷盘馈入) 端子分为不同的压接尺寸，以提供电线和端子的安全连接。自动化处理能够确保获得卓越的工艺可靠性。绝缘压接为导体提供额外支撑，以避免在发生振动时损坏电线

### 间隙和绝缘击穿间隙 - 术语和定义

**额定电压**:额定电压是由制造商指定的电压值，作为连接器额定功率和应用范围的基础。

**额定耐电压**:此电压值表示特定连接器及其绝缘材料可以承载的最大临时过电压。

**空气击穿间隙**:空气击穿间隙定义为两个导电元件之间通过空气的最短距离。

**绝缘击穿间隙**:绝缘击穿间隙定义为绝缘材料表面上两个导电元件之间的最短距离。

### 过压类别

该标准将过压分为四种安装类别。下面简要介绍了适用于连接器的三种类别：

**安装类别 I**:设备仅用于此类机器或作为不会发生过压的系统的一部分。此安装类别中的设备通常在超低电压下运行。

**安装类别 II**:设备仅用于此类机器或作为不会发生闪电过压的系统的一部分。然而，可能会发生由转换引起的过压。这包括家用电器等。

**安装类别 III**:设备可安装在机器上或作为系统的一部分，在这些系统中不需要考虑闪电过压，但对这些设备及其供应系统的安全性和可用性有特殊要求。

### 绝缘材料的分类

绝缘击穿间隙取决于绝缘材料的电痕特性。绝缘材料根据其相对漏电起痕指数 (CTI) 进行分类。

### Circular Connector Technology

**Circular Connectors** are used to transmit electrical power and signals to motors, drives and controls in industrial, medical and environmental technology applications as well as aerospace.

**Connectors** must neither be connected nor disconnected under voltage and load.

**Couplers** can be connected and disconnected under voltage and load.

### Connection Technologies

To crimp means to press, to indent and to fold. Crimp connections have widely replaced solder connections and have delivered optimal performance in practice. DIN Standard EN 60352 amongst others provides specifications for the crimp quality. A crimp is a permanent electrical connection of a wire and a crimp contact. Important test criteria are crimp width, crimp height and maximum tensile stress. There are two different contact types available for crimping:

**Turned Contacts**: This is a very common contact type. The wire gage is adapted to the contact's crimp sleeve. When using an adjustable crimp tool the depth of the crimp should be set according to manufacturer's data.

**Stamped Contacts**: Bandoleer (reel feed) contacts are divided into different crimp sizes to provide a secure connection of wire and contact. Automated processing ensures highest process liability. The insulation crimp gives additional support to the conductor to avoid damage to the wires under vibration

### Clearance and Creepage Distance – Terms and Definitions

**Rated Voltage**: The rated voltage is a voltage value specified by the manufacturer that serves as basis for the power rating and range of application of a connector.

**Rated Withstanding Voltage**: This voltage value indicates the maximum temporary overvoltage a specific connector and its insulation materials can carry.

**Clearance Distance**: The clearance distance is defined as shortest distance through the air between two conductive elements.

**Creepage Distance**: The creepage is defined as shortest distance on the surface of an insulating material between two conductive elements.

### Overvoltage Categories

The norm divides overvoltages in four installation categories. The three categories applicable to connectors are briefly described below:

**Installation Category I**: Equipment is intended for use only in such machines or as part of systems where no overvoltage can occur. Equipment in this installation category is normally operated at extra low voltage.

**Installation Category II**: Equipment is intended for use in machines or as part of systems where lightning overvoltages can not occur. Overvoltages caused by switching however may occur. This includes domestic appliances for example.

**Installation Category III**: Equipment is intended for installation in machines or as part of systems in which lightning overvoltages need not be considered, but which are subject to particular requirements regarding safety and availability of the equipment and its supply systems.

### Categorization of Insulation Material

The creepage distances depend on the tracking characteristics of the insulation material. Insulation materials are categorized according to their Comparative Tracking Index (CTI).

## Finding a TE Part Number - 18 digits

TE CONNECTIVITY PART NUMBER

**A S A 046 N 00 85 050A 000**

INTERCONTEC PART NUMBER

**A S T A 046 N N 00 85 050A 000**

**Series / 系列**  
 A = Signal (617, 623, 627)  
 B = Power (917, 923) / 功率  
 C = 940  
 D = 958  
 E = 615/915  
 P = singletec 923

**包装:**  
 内部代码  
**Packaging:**  
 internal code

**外壳:**  
 ST Plug / 插头 → S  
 KU Extensions / 延长插头 → K  
 EG Receptacles, straight 直式插座 → E  
 ED Receptacles, angled, rotatable 可旋转弯式插座 → G  
 DF Bulkhead connector / 穿板式连接器 → D  
 EW Receptacles, angled 弯式插座 → F  
 SD Plug, angled, rotatable 可旋转弯式插头 → U

**电缆固定夹:**  
 内部代码  
 对于穿板式连接器, 插座和弯式插座的相应字段标记为 „OO“。

**壳体表面:**  
 例如: A = 镀镍  
**Housing Surface:**  
 e. g.: A = nickel-plated

**端子:**  
 内部代码  
 NN OO = 端子不属于交货内容一部分。  
 \* 请单独订购, 并指明项目号。  
**Contacts:**  
 internal code  
 NN OO = contacts not part of delivery contents.

**绝缘塑芯:**  
 内部代码  
**Insulation Inserts:**  
 internal code

\* Please order separately with denoted item number.

MALE / 公端			FEMALE / 母端		
OLD / 旧	NEW/ 新	CONNECTION / 连接	OLD / 旧	NEW/ 新	CONNECTION / 连接
MR	M	CRIMP / 压接	FR	F	CRIMP / 压接
MS	S	SOLDER / 焊接	FS	G	SOLDER / 焊接
MD	D	BOARD SOLDER / 板焊接	FD	H	BOARD SOLDER / 板焊接
MU	U	MIXED COMPONENTS / 混合元件	FU	P	MIXED COMPONENTS / 混合元件
MT	T	SCREWED / 带螺纹	FC	C	SCREW M5 LIMOTEC / 螺钉 M5 LIMOTEC
MC	K	SCREW/CRIMP / 螺钉/压接			
MM	A	618 TORQUE / 618 扭矩			
NN	N	NO CONTACTS / 常开 (NO) 触点	NN	N	

## Finding a TE Part Number - 15 digits

INTERCONTEC PART NUMBER: 60.004.11

部件 (旧)																													
	Position/ 位置1	Letter / Number 字母/数字	Position/ 位置2	Letter / Number 字母/数字	Position/ 位置3	Special Character 特殊字符	Position/ 位置4	Letter / Number 字母/数字	Position/ 位置5	Number 数字	Position/ 位置6	Number 数字	Position/ 位置7	Number 数字	Position/ 位置8	Special Character 特殊字符	Position/ 位置9	Letter / Number 字母/数字	Position/ 位置10	Letter Number 字母/数字	Position/ 位置11	Letter / Number 字母/数字	Position/ 位置12	Special Character 特殊字符	Position/ 位置13	Letter / Number 字母/数字	Position/ 位置14	Letter / Number 字母/数字	Position/ 位置15
10.415.02	1	O	.						4	1	5	.																	
60.004.11	6	O	.						0	0	4	.																	
60.046.21.015	6	O	.						0	4	6	.																	
81.139.T92	8	1	.						1	3	9	.																	
8C.001.01.001	8	C	.						0	0	1	.																	
A6.032.F15	A	6	.						0	3	2	.																	
BB.182.00-SW	B	B	.						1	8	2	.																	
FF.051.00.010	F	F	.						0	5	1	.																	
40.A132.00	4	O	.	A	1	3	2	.							0	0													

TE CONNECTIVITY PART NUMBER: 60-0004-011-0000

部件 (新)																													
	Position/ 位置1	Letter / Number 字母/数字	Position/ 位置2	Letter / Number 字母/数字	Position/ 位置3	Special Character 特殊字符	Position/ 位置4	Letter / Number 字母/数字	Position/ 位置5	Number 数字	Position/ 位置6	Number 数字	Position/ 位置7	Number 数字	Position/ 位置8	Special Character 特殊字符	Position/ 位置9	Letter / Number 字母/数字	Position/ 位置10	Letter Number 字母/数字	Position/ 位置11	Letter / Number 字母/数字	Position/ 位置12	Special Character 特殊字符	Position/ 位置13	Letter / Number 字母/数字	Position/ 位置14	Letter / Number 字母/数字	Position/ 位置15
10-0415-002-000	1	O	-	0	4			1	5	-	0	0	0	0				0	2		0	1		0	1	5			
60-0004-011-000	6	O	-	0	0	0		0	4	-	0	0	1	0				2	1		0	0		S	W				
60-0046-021-015	6	O	-	0	0	4		6	-	0	0	2	1	0			1	5		0	0		0	1	0	1	0	0	
81-0139-T92-000	8	1	-	0	1	3		9	-	T	9	2	-	0			0	1		0	0		0	1	0	0	0	0	
8C-0001-001-001	8	C	-	0	0	0		1	-	0	0	1	-	0			0	1		0	0		0	0	1	0	0	1	
A6-0032-F15-000	A	6	-	0	0	3		2	-	F	1	5	-	0			1	5		0	0		0	0	0	0	0	0	
BB-0182-000-0SW	B	B	-	0	1	8		2	-	0	0	0	0	0			0	0		0	0		0	S	W				
FF-0051-000-010	F	F	-	0	0	5		1	-	0	0	0	0	0			0	0		0	0		0	1	0	0	0	0	
40-A132-000-000	4	O	-	A	1	3		2	-	0	0	0	0	0			0	0		0	0		0	0	0	0	0	0	

常用铜线换算表(单位 AWG 和 mm<sup>2</sup>)Conversion table of prevalent copper wires in AWG and mm<sup>2</sup>

IP 防护等级符合 DIN EN 60529

IP protection rating according to DIN EN 60529

导线横截面 Wire Cross-Section		线径 Wire Diameter	
AWG	mm <sup>2</sup>	平方英寸	mm 英寸
40	0.005	0.000008	0.080 0.00315
39	0.006	0.000010	0.090 0.00353
38	0.008	0.000012	0.101 0.00397
37	0.010	0.000016	0.113 0.00445
36	0.013	0.000020	0.127 0.00500
35	0.016	0.000025	0.134 0.00562
34	0.020	0.000031	0.160 0.00631
33	0.025	0.000039	0.180 0.00708
32	0.032	0.000050	0.202 0.00795
31	0.040	0.000063	0.227 0.00893
30	0.051	0.000079	0.255 0.01003
29	0.064	0.000100	0.286 0.01126
28	0.081	0.000125	0.321 0.01264
27	0.102	0.000158	0.361 0.01420
26	0.129	0.000200	0.405 0.01594
25	0.162	0.000252	0.455 0.01790
24	0.205	0.000317	0.511 0.02010
23	0.258	0.000400	0.573 0.02257
22	0.326	0.000505	0.644 0.02535
21	0.410	0.000636	0.723 0.02846
20	0.518	0.000802	0.812 0.03196
19	0.653	0.001012	0.912 0.03589
18	0.823	0.001276	1.024 0.04030
17	1.038	0.001609	1.150 0.04526
16	1.309	0.002028	1.291 0.05082
15	1.650	0.002558	1.450 0.05707
14	2.081	0.003225	1.628 0.06408
13	2.624	0.004067	1.828 0.07196
12	3.309	0.005129	2.053 0.08081
11	4.172	0.006467	2.305 0.09074
10	5.261	0.008155	2.588 0.10190
9	6.631	0.010279	2.906 0.11440
8	8.367	0.012969	3.264 0.12850
7	10.551	0.016354	3.665 0.14430
6	13.298	0.020612	4.115 0.16200
5	16.766	0.025987	4.620 0.18190
4	21.149	0.032781	5.189 0.20430
3	26.665	0.041331	5.827 0.22940
2	33.624	0.052117	6.543 0.25760
1	42.409	0.065733	7.348 0.28930
0	53.488	0.082907	8.252 0.32490

序号 No.	第 1 位数字 1 <sup>st</sup> Digit	定义 Definition	
		注释 Comment	
0	无防护 No protection		
1	防止直径为 50mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 50 mm or larger.		
2	防止直径为 12.5mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 12.5 mm or larger.		
3	防止直径为 2.5mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 2.5 mm or larger.		
4	防止直径为 1mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 1mm or larger.		
5	防尘 Dust-protected.	不能完全阻止灰尘进入,但灰尘的渗入量不能影响设备的正常运行或损害安全。 Ingress of dust is not totally prevented, but dust shall not penetrate in a quantity to interfere with satisfactory operation of the apparatus or to impair safety.	
6	防尘 Dust tight	无灰尘进入 No ingress of dust	

## IP 防护等级符合 DIN EN 60529

## IP protection rating according to DIN EN 60529

第 2 位数字 IP No.	2 <sup>nd</sup> Digit	注释 Comment
定义 Definition		
0 无防护 No protection		
1 防止垂直落下的水滴 Protected against vertically falling water drops		
2 防止外壳倾斜至 15° 时垂直落下的水滴 Protected against vertically falling water drops when housing is tilted up to 15°		
3 防止喷水 Protected against water sprays		从垂直轴的两侧以 60° 角喷溅的水不应产生有害影响。 Water sprayed at a 60° angle from either side of the vertical axis, shall have no harmful effect.
4 防止溅水 Protected against splashed water		从任何方向溅到外壳上的水不应产生有害影响。 Water splashed against the housing from any direction shall have no harmful effect.
5 从任何方向猛烈溅到外壳上的水不应产生有害影响 Water splashed as powerful jet against the housing from any direction shall have no harmful effect.		
6 从任何方向喷射到外壳上的水不应产生有害影响。 Water splashed as jet against the housing from any direction shall have no harmful effect.		
7 防止暂时浸入水中带来的影响 Protected against the effects of temporary immersion in water		当外壳在 1 米深的水中浸泡 30 分钟时, 水的进入量不得造成有害影响。 Water shall not enter in such quantity as to cause harmful effects when the housing is immersed for 30 min. under 1 m of water.
8 防止长时间浸入水中带来的影响 Protected against the effects of long submersion in water		经制造商和用户同意, 当外壳持续浸没在水中时, 水的进入量不得造成有害影响。这些条件必须比上述针对防护等级 7 的条件更严格。 Water may not enter in such quantity as to cause harmful effects when the housing is continuously submerged in water under conditions which shall be agreed to by manufacturer and user. These conditions must be more severe than those above for numeral 7.
9 在高压/蒸汽清洗过程中防止水浸入 Protected against the penetration of water during high pressure / steam cleaning		从任何方向流向外壳的水以及压力增加都不应产生任何有害影响。 Water directed at the housing from any direction and with increased pressure shall not have any harmful effect.

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