



THE DATASHEET OF
60.003.11





**INTERCONTEC 系列 627
信号连接器 M27**

**INTERCONTEC SERIES 627
SIGNAL CONNECTORS M27**



源自德国的高新科技 High-tech made in Germany

我们的使命是为各种应用开发卓越的信号、现场总线和电源连接器。

凭借技术专长与市场经验，我们对现有标准提出了挑战。我们以远见卓识确定了未来的连接器技术，从而为我们的客户提供创新和面向市场的解决方案。

我们的连接器遵循高度精密的工程学原理，可极大地简化装配过程并提高效率。

通过精心制作极具用户友好性的最佳系统解决方案并在极短时间内推向市场，我们可快速响应客户的需求。这是 TE Connectivity 和 INTERCONTEC 产品的主要优势。

It is our mission to develop outstanding signal, fieldbus and power connectors for a wide range of applications.

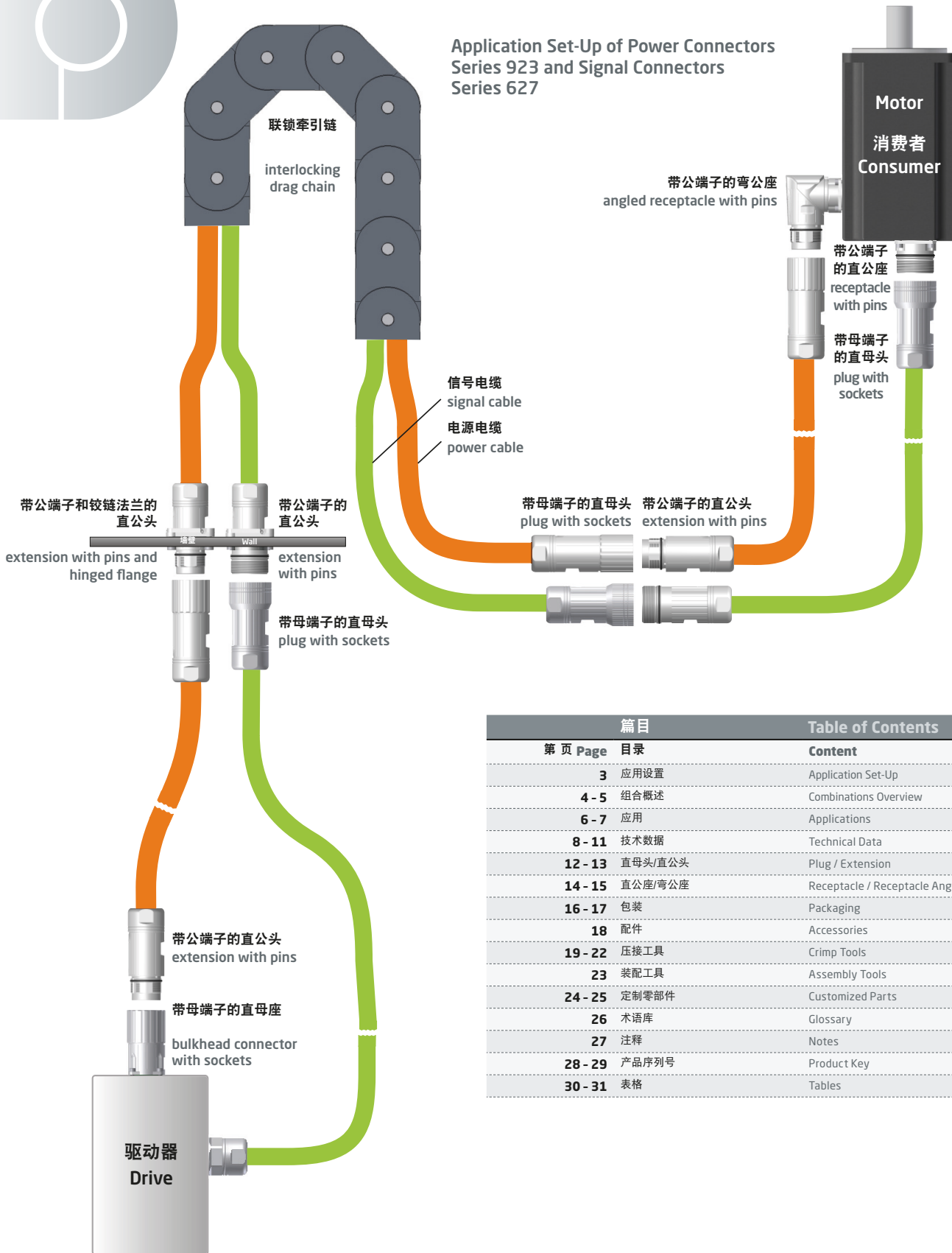
With know-how and market expertise we challenge existing standards. We take a visionary approach to determine the connector technology of the future to provide our customers with innovative and market-oriented solutions.

Our connectors follow highly sophisticated engineering principles safeguarding an extremely easy and efficient assembly process.

By elaborating highly user-friendly optimum system solutions which are brought to the market in a very short time we quickly respond to our customers' needs. This is the key strength of TE Connectivity and the INTERCONTEC products.

电源连接器 923 系列和信号连接器 627 系列的应用设置

Application Set-Up of Power Connectors Series 923 and Signal Connectors Series 627



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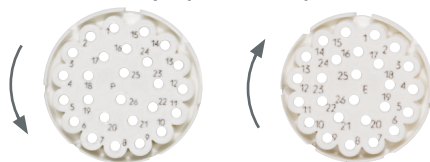


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绝缘插接件
Insulation Inserts

26孔 (26 x Ø 1 mm)
26-pin (26 x Ø 1 mm)



带压接连接的 冲压式 公端子和母端子
带压接或焊接连接的车削端子

bandoleer contact pins and sockets with crimp connection
turned contacts with crimp or solder connection

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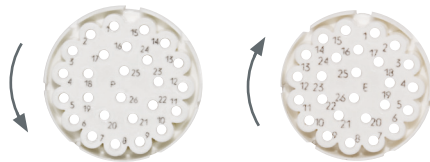


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绝缘插接件
Insulation Inserts

26孔 (26 x Ø 1 mm)
26-pin (26 x Ø 1 mm)

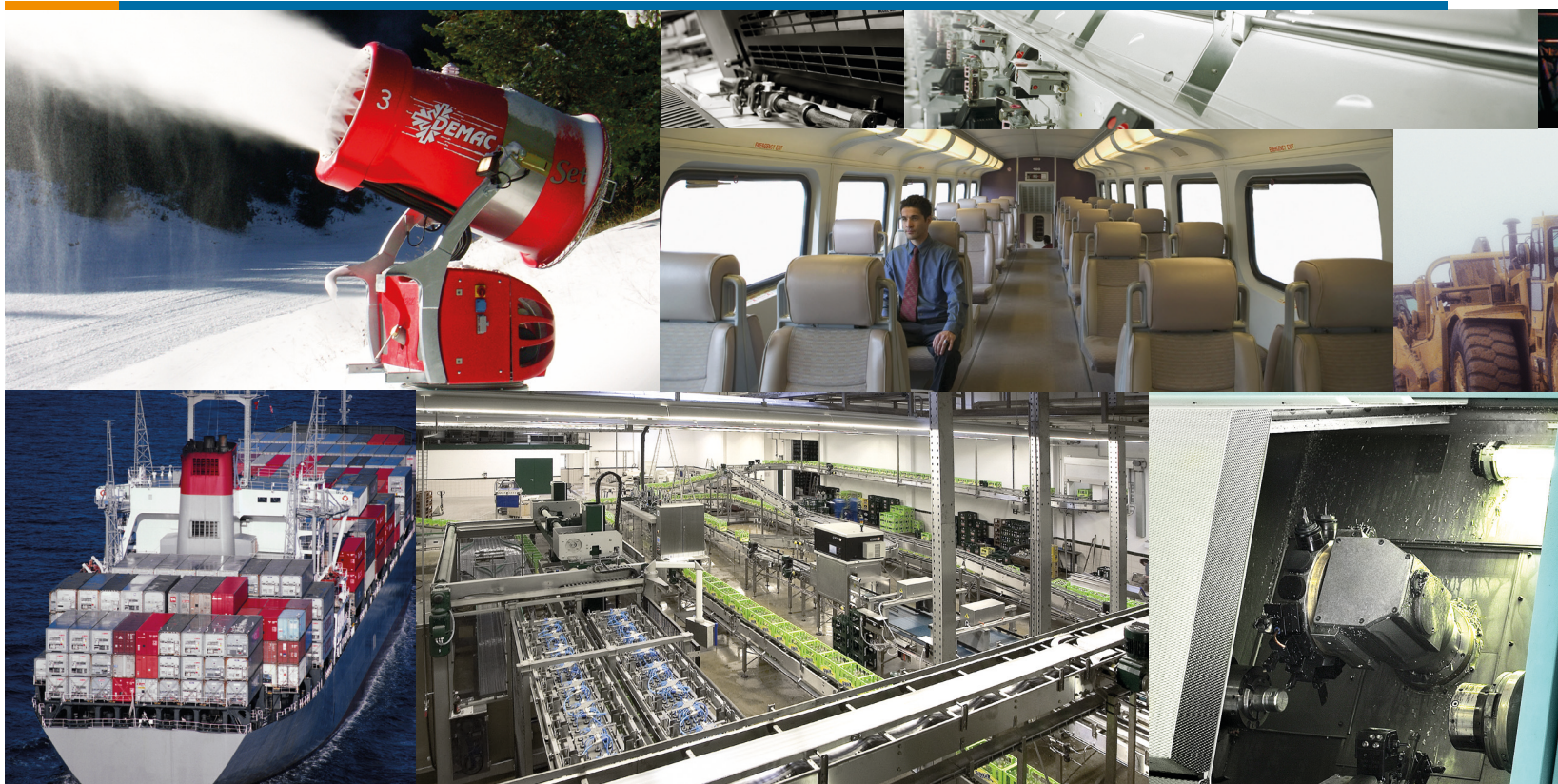


带压接连接的 冲压式 公端子和母端子
带压接或焊接连接的车削端子

bandoleer contact pins and sockets with crimp connection
turned contacts with crimp or solder connection

应用

Applications



无限应用范围



驱动器系统
Drive Systems



机器人技术
Robotics



机械工程
Mechanical Engineering



自动化机械电子
Automation Mechatronics



医疗/化学工程
Medical/Chemical Engineering



包装和印刷
Packaging and Printing



航空航天
Aerospace

开发

Development



我们自己的 3D 工程部门是成功开发面向应用的连接器的关键。

Our own 3D engineering department is the key to a successful, application oriented development of connectors.

最新原型设计

State-of-the-art Prototyping



INTERCONTEC 面向原型制造的大型机器园区。

INTERCONTEC's large machine park for prototype manufacturing.

自动化连接器装配

Automated Connector Assembly



自动化生产线可确保我们组件和子装配体的可靠加工。

Automated production lines ensure reliable processing of our components and subassemblies.

内部电缆组件

In-House Cable Assembly



完整装配的组件、自动化生产、100% 测试。

Completely assembled components, automated production, 100% tested.

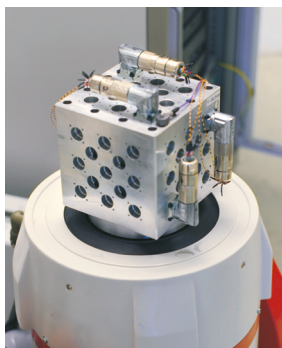


Unlimited Range of Applications

- 
建筑机械
Construction Machinery
- 
铁路/运输
Railroad/Transportation
- 
造船
Shipbuilding
- 
可再生能源
Renewable Energies
- 
闪电/声音/暂存
Lightning Sound Staging
- 
食品行业
Food Industry
- 
纺织行业
Textile Industry

内部测试实验室

In-House Test Laboratory

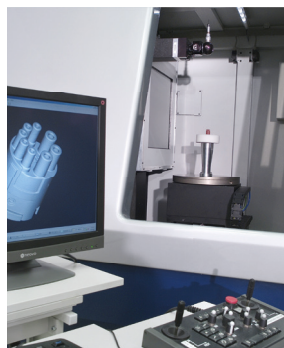


我们的产品经过质量鉴定，完全符合质量及规范要求。

Qualification of our products to deliver 100% quality and standard conformity.

组件测量、材料测试

Component Measuring, Material Testing



采用电脑断层摄影术的组件测量和生产控制。

Component measuring and production control with computer tomography.

国际经销

International Distribution



高仓库容量、井然有序的零部件管理以及全球即时交付。

High warehouse capacity, organized part management with worldwide just-in-time delivery.

无限连接

Infinite Connections



适合每种应用的连接器：模块化 - 可靠 - 创新。

The suitable connector for every application: modular - dependable - innovative.

DIN EN ISO 9001:2015

质量

符合 DIN EN ISO 9001:2015 的质量管理系统向全球用户提供符合标准的质量。

目前正在 Niederwinkling 的内部测试实验室根据这些国家和国际标准执行认证质量鉴定。

特定公司标准中规定的非常高的特殊 INTERCONTEC 需求在很多方面都超越了国家及国际标准，并在 INTERCONTEC 实验室中通过了实际测试的记录和验证。连接器装配的高自动化水平以及生产期间的实时控制将带来最高的流程可靠性和最佳质量。

使用压接机器加工的所有端子都会经过拔出力 and 压接质量测试。此外还会定期执行显微镜微观部分测试和插拔次数测试。

生产期间的 IP 防护、公端子配置、连续性和插接测试等方面的集成实时控制可确保我们电缆组件的最佳性能。

产品认证

请在以下位置找到所有相关产品认证：

<https://www.intercontec.com/en/download/certificates.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.intercontec.com/en/download/certificates.html>

DIN 60529

IP 66/67

符合 EN 60529 的 IP 防护等级

除非另有特别说明，否则所有 INTERCONTEC 连接器均达到了 IP 66/67 防护等级。根据设计规格，连接器必须能够承受会限制性能的环境影响（灰尘、湿度、清洗溶剂）。

（请参阅附录中的表格）

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 屏蔽以同轴 360° 放在外壳上，可带来最佳的电磁兼容性。根据法定 EMC 法规，设备必须符合以下标准：

1. 电磁干扰必须限制为可执行预期操作的程度。
2. 设备必须提供相应的抗电磁干扰能力，以便确保可执行预期操作。

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.

载流容量

有关载流容量的所有规格都已根据 DIN EN 60512 在 INTERCONTEC 实验室中确定。在此流程中，创建了载流容量图（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决定。环境温度和工作电流导致的温度上升之和不得超过连接器的温度限制。

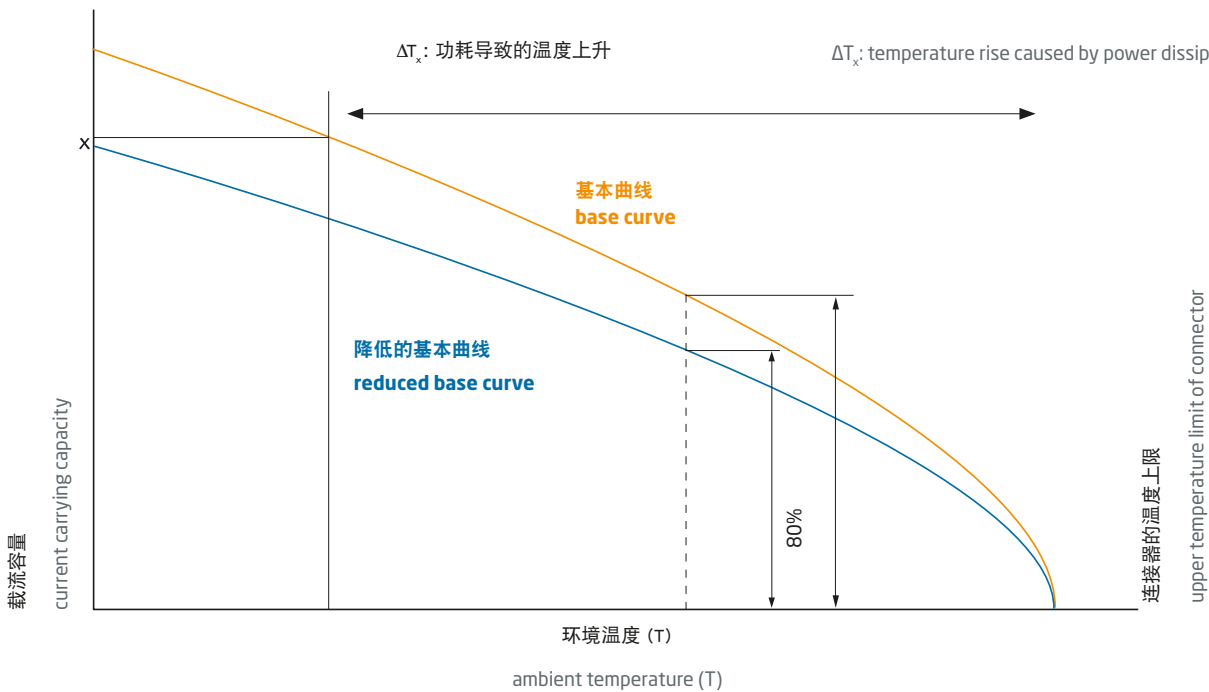
载流容量并非恒定值，会随环境温度增加而降低。

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 diagram (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.



材料		
外壳	黄铜、锌压铸件； 镀镍	外壳采用黄铜还是锌压铸件须取决于应用。大多数情况下大量使用的是锌压铸件。黄铜压铸件主要用于圆形零部件。
连接螺母	黄铜镀镍	
绝缘插接件	PA/PBT, UL 94/V0	对于连接器的绝缘插接件, 大多数情况下都采用 PBT 和优质的 PA 型号, 特别适用于高应力技术铸模零部件。塑料具有非常好的化学、电气和机械特性。
端子	黄铜镀金	端子特性主要由使用的材料决定。 尤其重要的是: ▶稳定性和柔韧性特性 ▶导电性 ▶最高工作温度 ▶成型性
密封件	FPM/HNBR	必须使用特殊密封件才能满足润滑油、油脂、溶剂、酸碱和其他化学品以及极端温度应力等工业标准。在 INTERCONTEC, 标准材料为萤石橡胶 [氟化橡胶]。
	EPDM	对于特殊的室外应用, 需要可承受天气、臭氧、紫外线和温度 (低至 -50° C), 因此我们采用了三元乙丙橡胶 (EPDM)。
夹具环	黄铜镀镍	

Materials		
Housing	brass, zinc diecast; nickel-plated	Depending on the application brass or zinc diecast is used for the metal housing. In most cases zinc diecast is used for larger quantities. Brass is primarily used for round parts.
Connecting Nut	brass nickel-plated	
Insulation Insert	PA/PBT, UL 94/V0	For insulation inserts of connectors mostly PBT and high-quality PA-variants are used that are especially suitable for highly stressed technical diecast parts. The plastic has very good chemical, electrical and mechanical properties.
Contacts	brass gold plated	Contact characteristics are mainly determined by the materials used. Especially important among others are: ▶ stability and flexibility characteristics ▶ electrical conductivity ▶ max. operating temperature ▶ formability
Seals	FPM/HNBR	Special seals have to be used to cope with industrial standards like oil, grease, solvents and acids, bases and chemicals as well as extreme temperature stress. 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 we use ethylene propylene dien rubber (EPDM) .
Clamp Ring	brass nickel-plated	

值符合 VDE 0110/EN 61984, 第 6.19.2.2 部分

污染等级	3
过电压类别	III
最大工作高度	2000m

各个 VDE 认证和资格鉴定可应要求提供。

Data according to VDE 0110/EN 61984, part 6.19.2.2

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

Individual VDE certifications and accreditations available on request.

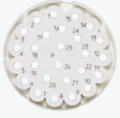
常规技术数据

端子端接 压接版本、焊料杯、焊接式
温度范围 -20° C 至 130° C / 从 -50° C 可选
防护类型 IP 66/67, 连接时
屏蔽 EMC 屏蔽外壳
插拔次数 最少500次
夹紧范围 Ø 4.2 - Ø 17.0 mm
锁紧类型 螺纹版本 M27 x 1

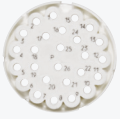
General Technical Data

Contact Terminations crimp version, solder cup, solder-in
Temperature Range -20° C to 130° C / optional from -50° C
Protection Type IP 66/67 when connected
Shielding EMC shielded housing
Mating Cycles min. 500
Clamping Range Ø 4.2 - Ø 17.0 mm
Locking Types threaded version M27 x 1

电气数据 26

		
最大连接横截面的额定电流	[A]	9
额定电压 (AC/DC)	[V]	60
额定绝缘电压	[kV]	2
孔数		26
端子 Ø	[mm]	1
最大横截面	[mm ²]	1.5

Electrical Data 26

		
rated current at max. connection cross section	[A]	9
rated voltage (AC/DC)	[V]	60
rated insulation voltage	[kV]	2
number of pins		26
contact Ø	[mm]	1
max. cross section	[mm ²]	1,5



公端子 $\varnothing 1\text{ mm}$
单独订购

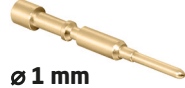


$\varnothing 1\text{ mm}$
压接范围 0.14 - 1.0 mm²
crimping range 0.14 - 1.0 mm²
61.004.11

Contact Pin $\varnothing 1\text{ mm}$
Not part of product contents



$\varnothing 1\text{ mm}$
焊接柱 1.5 mm²
solder bucket 1.5 mm²
61.006.11



$\varnothing 1\text{ mm}$
压接范围 0.03 - 0.34 mm²
crimping range 0.03 - 0.34 mm²
61.083.11

货号 Art. No.



冲压式 公端子 $\varnothing 1\text{ mm}$
单独订购



$\varnothing 1\text{ mm}$
压接尺寸 1 (0.03 - 0.08 mm²)
卷盘上 7000 pcs
crimping size 1 (0.03 - 0.08 mm²)
7 000 pcs on reel
61.170.80

Bandoleer Contact Pin $\varnothing 1\text{ mm}$
Not part of product contents



$\varnothing 1\text{ mm}$
压接尺寸 2 (0.08 - 0.20 mm²)
卷盘上 7000 pcs
crimping size 2 (0.08 - 0.20 mm²)
7 000 pcs on reel
61.171.80



$\varnothing 1\text{ mm}$
压接尺寸 3 (0.20 - 0.52 mm²)
卷盘上 7000 pcs
crimping size 3 (0.20 - 0.52 mm²)
7 000 pcs on reel
61.172.80



$\varnothing 1\text{ mm}$
压接尺寸 4 (0.75 - 1.0 mm²)
卷盘上 10000 pcs
crimping size 4 (0.75 - 1.0 mm²)
10 000 pcs on reel
61.173.80

货号 Art. No.

电缆夹具

Cable Clamps

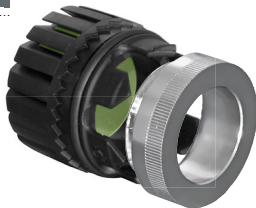


皇冠形夹具
电缆夹紧范围 4.2 - 6.6 mm

集成密封件、抗扭防护和同轴冠状屏蔽连接。不需要屏蔽修剪。

Crown Clamp
cable clamping range 4.2 - 6.6 mm

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



电缆夹紧范围 7.5 - 12.0 mm

cable clamping range 7.5 - 12.0 mm



电缆夹紧范围 9.5 - 14.5 mm

cable clamping range 9.5 - 14.5 mm



平片形夹具
电缆夹紧范围 4.2 - 6.6 mm

集成密封件和同轴屏蔽连接。

Lamella Clamp
cable clamping range 4.2 - 6.6 mm

Integrated seal and coaxial shield connection.



电缆夹紧范围 7.5 - 12.0 mm

cable clamping range 7.5 - 12.0 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



球夹具
电缆夹紧范围 9.0 - 14.0 mm

集成双层密封件和同轴屏蔽连接。

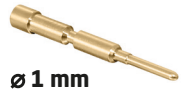
Ball Clamp
cable clamping range 9.0 - 14.0 mm

Integrated double lip seal and coaxial shield connection.



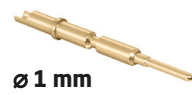


公端子 Ø 1 mm
单独订购

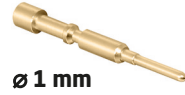


Ø 1 mm
压接范围 0.14 - 1.0 mm²
crimping range 0.14 - 1.0 mm²
61.004.11

Contact Pin Ø 1 mm
Not part of product contents



Ø 1 mm
焊接柱 1.5 mm²
solder bucket 1.5 mm²
61.006.11



Ø 1 mm
压接范围 0.03 - 0.34 mm²
crimping range 0.03 - 0.34 mm²
61.083.11

货号 Art. No.



冲压式 公端子 Ø 1 mm
单独订购



Ø 1 mm
压接尺寸 1 (0.03 - 0.08 mm²)
卷盘上 7000 pcs
crimping size 1 (0.03 - 0.08 mm²)
7 000 pcs on reel
61.170.80

Bandoleer Contact Pin Ø 1 mm
Not part of product contents



Ø 1 mm
压接尺寸 2 (0.08 - 0.20 mm²)
卷盘上 7000 pcs
crimping size 2 (0.08 - 0.20 mm²)
7 000 pcs on reel
61.171.80



Ø 1 mm
压接尺寸 3 (0.20 - 0.52 mm²)
卷盘上 7000 pcs
crimping size 3 (0.20 - 0.52 mm²)
7 000 pcs on reel
61.172.80



Ø 1 mm
压接尺寸 4 (0.75 - 1.0 mm²)
卷盘上 10000 pcs
crimping size 4 (0.75 - 1.0 mm²)
10 000 pcs on reel
61.173.80

货号 Art. No.



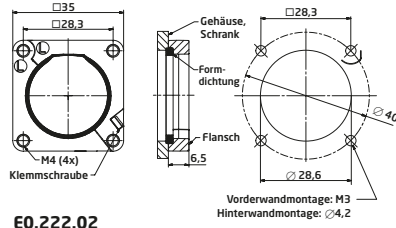
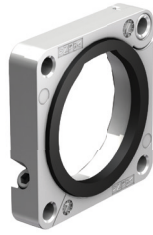
装配的连接器 and 单个组件经过全面测试、包装在合适的逐个定制箱中、贴标、托盘化和发货。

Assembled connectors and single components are tested thoroughly, packed in suitable individually customized boxes, labelled, palletized and shipped.



我们还可应要求提供客户特定服务包，其中包括装配说明（见上图）。

On request we also offer customer specific service packs which include assembly instructions (see picture above).



E0.222.02

金属法兰，铰链
Metal Flange, hinged

带密封环，在备用情况下可与直母头和直公头配合使用
with sealing ring, can be used alternatively with plug and extension



A2.043.01

夹具环适配器 M25 x 1.5
Clamp Ring Adaptor M25 x 1.5

适用于直母头和直公头的电缆出口
suitable for cable outlets from plug and extension



A2.047.01

使用夹具环实现 Ø 13.7 mm 的弯曲保护
Bend Protection Ø 13.7 mm with Clamp Ring

适合直母头和直公头，但以下项除外：
球夹具
suitable for plug and extension except: Ball clamps



C0.235.00

数显式压接工具 (带 2 个定位器装置的压接套件) Digital Crimp Tool (Crimp Set with 2 Locator units)

对于端子, 线规 0.03 - 2.5 mm²。两个可调整定位器装置允许加工各种端子。牢固设计、自校准、带 2 个定位器装置和外壳。

for contacts wire gauge 0.03 - 2.5 mm². Two adjustable locator units allow the processing of various contacts. Solid design, self-calibrating, with 2 locator units and case.

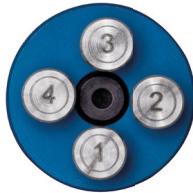


C0.236.00

数显式压接工具 (带 2 个定位器装置的压接套件) Digital Crimp Tool (Crimp Set with 2 Locator units)

对于端子, 线规 0.1 - 4.0 mm²。两个可调整定位器装置允许加工各种端子。牢固设计、自校准、带 2 个定位器装置和外壳。

for contacts wire gauge 0.1 - 4.0 mm². Two adjustable locator units allow the processing of various contacts. Solid design, self-calibrating, with 2 locator units and case.



C0.242.00

C0.235.00 的定位器
包含在产品内容中。

Locator for C0.235.00
Part of product contents.

母端子 Sockets	公端子 Pins
60.001.11	61.004.11
60.011.11	61.072.11
60.070.11	61.083.11
60.159.11	61.141.11
60.171.11	61.151.11
60.172.11	61.178.11
60.205.11	



C0.244.00

C0.236.00 的定位器
包含在产品内容中。

Locator for C0.236.00
Part of product contents.

母端子 Sockets	公端子 Pins
60.001.11	61.004.11 61.055.11
60.003.11	61.009.11 61.097.11
60.011.11	61.010.11 61.098.11
60.023.11	61.020.11 61.107.11
	61.021.11 61.108.11
	61.022.11 61.193.11
	61.023.11 61.194.11
	61.027.11 61.216.11



C0.243.00

C0.235.00 的定位器
包含在产品内容中。

Locator for C0.235.00
Part of product contents.

母端子 Socket	公端子 Pins
60.197.11	61.009.11
	61.020.11
	61.167.11



C0.245.00

C0.236.00 的定位器
包含在产品内容中。

Locator for C0.236.00
Part of product contents.

母端子 Sockets	公端子 Pins
60.012.11	61.008.11
60.070.11	61.072.11
60.159.11	61.141.11
60.162.11	61.145.11
60.197.11	61.167.11
60.204.11	61.176.11
60.208.11	61.180.11
60.216.11	61.189.11

WA10043

用于长度大于 24 mm 的短剥离长度

for short stripping length longer than 24 mm

WA10415

首选用于电线横截面 1.5 - 6.0 mm² 且长度大于 34 mm 的剥离长度

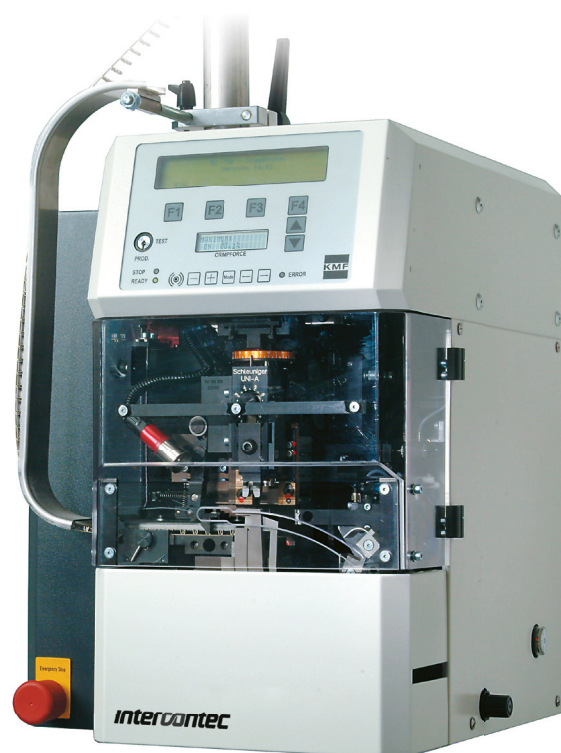
preferably used for wire cross section 1.5 - 6.0 mm² and stripping length longer than 34 mm

剥离和压接机 Stripcrimp 750

用于 \varnothing 1 mm 和 \varnothing 2 mm 冲压式端子。剥离和压接自动在一步中完成，由于加工速度加快，节省了 50% 的时间。压接工具易于操作、可快速更换、易于维修，具有压接质量控件。

Stripping and Crimping Machine Stripcrimp 750

for \varnothing 1 mm and \varnothing 2 mm bandoleer contacts. Strips and crimps automatically in one step, 50 % time saving due to faster processing. Easy handling, crimp tool can be changed quickly, easy to service, with crimp quality control.



母端子 Sockets	公端子 Pins	压接范围/尺寸 Crimping Range / Size	工具编号 Tool No.
60.198.80 \varnothing 1mm		0,03-0,08mm ² / 1	WM10241
60.199.80 \varnothing 1mm		0,08-0,20mm ² / 2	WM10242
60.200.80 \varnothing 1mm		0,20-0,52mm ² / 3	WM10243
60.201.80 \varnothing 1mm		0,75-1,00mm ² / 4	WM10244
	61.170.80 \varnothing 1mm	0,03-0,08mm ² / 1	WM10241
	61.171.80 \varnothing 1mm	0,08-0,20mm ² / 2	WM10242
	61.172.80 \varnothing 1mm	0,20-0,52mm ² / 3	WM10243
	61.173.80 \varnothing 1mm	0,75-1,00mm ² / 4	WM10244



C0.201.00

中型压接工具

对于 $\varnothing 1\text{ mm}$ 和 $\varnothing 2\text{ mm}$ 端子，最大线规 4 mm^2 ，包括定位器
对于兼容定位插接件：见下文

Crimp Tool, mid-size

for $\varnothing 1\text{ mm}$ and $\varnothing 2\text{ mm}$ contacts max wire gauge 4 mm^2 , includes positioner

For compatible positioning inserts see below



C0.003.00

用于 $\varnothing 1\text{ mm}$ 端子的定位插接件

与压接工具 C0.201.00 和 C0.217.00 兼容

Positioning Insert for $\varnothing 1\text{ mm}$ Contacts

compatible with crimp tools C0.201.00 and C0.217.00

母端子	Sockets	公端子	Pins
60.001.11		61.004.11	
60.011.11			



WA10672

气动压接工具

紧凑免维护台式工具，适用于高达 25 kN 的压力，工作压力 6 bar 。手或脚控开关。
没有任何压接插接件的交付。

Pneumatic Crimp Tool

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.



C0.373.00

数显压接插接件，中型，适合 WA10672

与手工具 C0.201.00 关联，用于 1 mm 和 2 mm 端子，最大线规 4 mm^2

Digital crimp insert, midsize for WA10672

Correlates the hand tool C0.201.00 for 1 mm and 2 mm contacts max. wire gauge 4 mm^2

压接工具

Crimp Tools



C0.101.00

**压接工具，
小型**

用于 $\varnothing 1\text{ mm}$ 端子，
最大线规 1.5 mm^2
包括位置控制器和定位器

**Crimp Tool,
small**

for $\varnothing 1\text{ mm}$ contacts,
max wire gauge 1.5 mm^2 ,
includes positioner and locator

母端子	Sockets	公端子	Pins
60.001.11		61.004.11	
60.011.11		61.083.11	
60.159.11		61.141.11	
60.172.11			



C0.372.00

**数显压接插接件，
小型，适合 WA10672**

包括定位器 C0.242.00 和
C0.243.00。
与手工具 C0.235.00 的压接插接
件关联。

**Digital crimp insert,
small for WA10672**

Locator C0.242.00 and C0.243.00
included.
Correlates the crimp inserts of
hand tool C0.235.00.



C0.246.00

**用于 冲压式
端子的压接工具**

用于 冲压式 端子 $\varnothing 1\text{ mm}$ ，
压接范围 $0.03 - 0.08\text{ mm}^2$ 和
 $0.75 - 1.00\text{ mm}^2$ ，圈盘单独订购

**Crimp Tool for
Bandoleer Contacts**

for bandoleer contacts $\varnothing 1\text{ mm}$ ，
crimp range $0.03 - 0.08\text{ mm}^2$ and
 $0.75 - 1.00\text{ mm}^2$, reel is not part
of product contents

冲压式 母端子 $\varnothing 1\text{ mm}$ Bandoleer Contact Socket $\varnothing 1\text{ mm}$	压接范围 Crimping Range	包装设备 Packaging Unit
60.198.80.022	$0,03 - 0,08\text{ mm}^2$	卷盘上有 400 块 400 pieces on reel
60.201.80.021	$0,75 - 1,00\text{ mm}^2$	卷盘上有 280 块 280 pieces on reel

冲压式 公端子 $\varnothing 1\text{ mm}$ Bandoleer Contact Pin $\varnothing 1\text{ mm}$	压接范围 Crimping Range	包装设备 Packaging Unit
61.170.80.026	$0,03 - 0,08\text{ mm}^2$	卷盘上有 400 块 400 pieces on reel
61.173.80.027	$0,75 - 1,00\text{ mm}^2$	卷盘上有 280 块 280 pieces on reel



C0.078.00

**用于 冲压式
端子的压接工具**

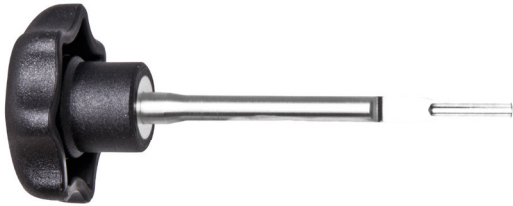
用于 冲压式 端子 $\varnothing 1\text{ mm}$ ，
压接范围 $0.08 - 0.20\text{ mm}^2$ 和
 $0.20 - 0.52\text{ mm}^2$ ，圈盘单独订购

**Crimp Tool for
Bandoleer Contacts**

for bandoleer contacts $\varnothing 1\text{ mm}$ ，
crimp range $0.08 - 0.20\text{ mm}^2$ and
 $0.20 - 0.52\text{ mm}^2$, reel is not part
of product contents

冲压式 母端子 $\varnothing 1\text{ mm}$ Bandoleer Contact Socket $\varnothing 1\text{ mm}$	压接范围 Crimping Range	包装设备 Packaging Unit
60.199.80.022	$0,08 - 0,20\text{ mm}^2$	卷盘上有 400 块 400 pieces on reel
60.200.80.021	$0,20 - 0,52\text{ mm}^2$	卷盘上有 380 块 380 pieces on reel

冲压式 公端子 $\varnothing 1\text{ mm}$ Bandoleer Contact Pin $\varnothing 1\text{ mm}$	压接范围 Crimping Range	包装设备 Packaging Unit
61.171.80.026	$0,08 - 0,20\text{ mm}^2$	卷盘上有 400 块 400 pieces on reel
61.172.80.027	$0,20 - 0,52\text{ mm}^2$	卷盘上有 380 块 380 pieces on reel



C5.002.00

安装工具端子装配
Ø 1 mm

已压接或焊接端子的接头工具

Mounting Tool Contact
Assembly Ø 1 mm

fitting tool for already crimped or
soldered contacts



C6.011.00

电缆插入螺栓

使用球夹具的电缆 Ø 12 mm
(最小) 的插入工具

Bolt for Cable
Insertion

insertion tool for cables
Ø 12 mm min. using ball clamps



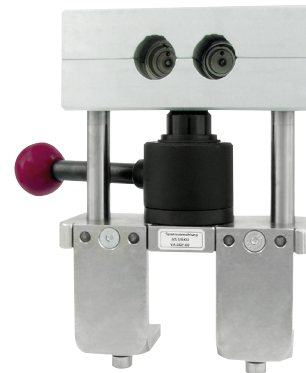
C4.017.00

信号绝缘体拆卸工具

拆卸直插座中的信号绝缘插接件

Removing Tool for
Signal Insulator

removes signal insulation insert
from receptacles



VB.005.00

夹具

用于轻轻拧紧直接连接器以拧紧
电缆夹具

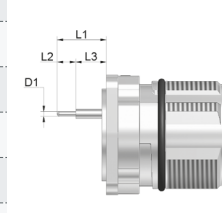
Fixture

for gently tightening straight
connectors to screw on cable
clamp

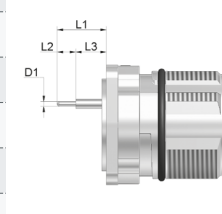
有关可用定制解决方案和如下一些其他可能的型号的信息，请联系我们：

- 低温连接器，用于低于 -50° C 的极端温度环境
- 特殊编码，用于连接器外壳和绝缘体
- 特殊标签，位于绝缘体和连接器外壳上
- 特殊和多槽夹具
- 私人标签，在金属外壳上，带贵公司徽标
- 插拔前IP66/67防护需求
- IP 68
- IP 69K

零部件号 端子	焊接区		投影 L1 / L3	
	L2	D1	直公座螺丝	
焊接型公端子				
			L1	L3
60.028.11	3	1	7.0	4.0
60.066.11	2.4	1	9.5	7.1
60.044.11	2.4	1	10.0	7.6
60.067.11	4	1	12.4	8.4
60.068.11	4	1	12.8	8.8
60.211.11	3.9	1	15.7	11.8
60.212.11	3.9	1	36.2	32.3
60.258.11	23.93	1.2	22.0	0



零部件号 端子	焊接区		投影 L1 / L3	
	L2	D1	直公座螺丝	
焊接型公端子				
			L1	L3
61.043.11	1.5	1	5.5	4.0
61.014.11	7.5	1	5.9	0
61.036.11	2.4	1	9.5	7.1
61.042.11	2	1	11.6	9.6
61.168.11	2.5	1	11.6	9.1
61.041.11	4	1	12.3	8.3
61.158.11	4	1	14.6	10.6
61.067.11	2.4	1	16.9	14.5
61.236.11	23.97	1.2	22.0	0

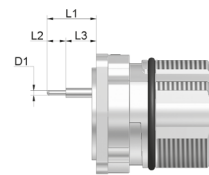


此外：我们针对所有用途实现了专业、灵活、基于项目、定制以及独有的特殊应用和新开发。

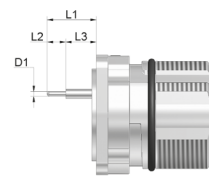
Please contact us for information about available customized solutions and many other possible variations such as:

- **Low Temperature Connectors** for extreme weather conditions down to -50°C
- **Special Codings** for connector housing and insulator
- **Special Labelling** on insulator and connector housing
- **Special and Multi-Slot Clamps**
- **Private Labelling** on metal housing with your corporate logo
- **disconnected IP 66/67-protection**
- **IP 68**
- **IP 69K**

Part No. Contact	Solder Area		Projection L1 / L3	
	L2	D1	Receptacle screw	
Solder Pins				
			L1	L3
60.028.11	3	1	7.0	4.0
60.066.11	2.4	1	9.5	7.1
60.044.11	2.4	1	10.0	7.6
60.067.11	4	1	12.4	8.4
60.068.11	4	1	12.8	8.8
60.211.11	3.9	1	15.7	11.8
60.212.11	3.9	1	36.2	32.3
60.258.11	23.93	1,2	22.0	0



Part No. Contact	Solder Area		Projection L1 / L3	
	L2	D1	Receptacle screw	
Solder Pins				
			L1	L3
61.043.11	1.5	1	5.5	4.0
61.014.11	7.5	1	5.9	0
61.036.11	2.4	1	9.5	7.1
61.042.11	2	1	11.6	9.6
61.168.11	2.5	1	11.6	9.1
61.041.11	4	1	12.3	8.3
61.158.11	4	1	14.6	10.6
61.067.11	2.4	1	16.9	14.5
61.236.11	23.97	1.2	22.0	0



In addition: We realize professionally and flexibly project based, customized as well as exclusive special applications and new developments for all purposes.

术语和定义

Terms and Definitions

圆形连接器技术

在工业、医疗和环境技术应用以及航空航天中，圆形连接器用于将电力和信号传输到电机、驱动器和控制装置。

连接器不得在电压和负荷下连接和断开。

耦合器可以在电压和负荷下连接和断开。

连接技术

压接是指按下、缩进和折叠。压接连接已广泛取代焊接连接，并在实践中表现出了最佳性能。DIN 标准 EN 60352 等提供了压接质量规格。压接是电线和压接型端子的永久性电气连接。重要测试标准有压接宽度、压接高度和最大拉应力。有两种不同的端子类型可用于压接：

车削端子：这是非常常见的端子类型。线规按端子压接套筒进行调整。使用可调整压接工具时，压接深度应该根据制造商数据设置。

冲压端子：冲压式（卷盘馈入）端子分为不同的压接尺寸，可提供电线和端子的牢固连接。自动化加工可确保最高流程可靠性。绝缘压接向连接器提供额外支持，以免因振动而损坏电线。

间隙和蠕变距离 - 术语和定义

额定电压：额定电压是由制造商指定的电压值，用作电源额定值的基准和连接器的应用范围。

额定耐压：此电压值表示特定连接器及其绝缘材料可携带的最大临时过压。

间隙距离：间隙距离定义为穿过两个导电元件之间的空气的最短距离。

蠕变距离：蠕变定义为两个导电元件之间的绝缘材料表面上的最短距离。

过压类别

此标准将过压分为四个安装类别。下面简要介绍适用于连接器的三个类别：

安装类别 I：设备仅适用于不会发生过压的机器或用作不会发生过压的系统的一部分。此安装类别中的设备通常以超低电压工作。

安装类别 II：设备适用于不会发生雷电过电压的机器或用作不会发生雷电过电压的系统的一部分。但是，可能会发生切换导致的过压。例如，这包括家用电器。

安装类别 III：设备适用于安装在如下机器中或作为如下系统的一部分：不需要考虑雷电过电压，但需满足有关设备及其供电系统的安全和可用性的特定要求。

绝缘材料的分类：蠕变距离取决于绝缘材料的跟踪特性。绝缘材料根据其相对漏电起痕指数 (CTI) 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 0 4 6 N 0 0 8 5 0 5 0 A 0 0 0

INTERCONTEC PART NUMBER

A S T A 0 4 6 N N 0 0 8 5 0 5 0 A 0 0 0

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

Housing / 外壳:
 ST Plug / 直母头 → S
 KU Extensions / 直公头 → K
 EG Receptacles, straight / 直公座 → E
 ED Receptacles, angled, rotatable / 可旋转弯公座 → G
 DF Bulkhead connector / 直母座 → D
 EW Receptacles, angled / 弯公座 → F
 SD Plug, angled, rotatable / 可旋转直角直母头 → U

外壳表面:
 例如, A = 镀镍

Housing Surface:
 e. g.: A = nickel-plated

绝缘插件:
 内部代码

Insulation Inserts:
 internal code

包装:
 内部代码

Packaging:
 internal code

设计差异:
 内部代码

Design Variation:
 internal code

电缆夹具:
 内部代码
 对于直母座, 直公座和弯公座对应的字段标记为“00”。

Cable Clamp:
 internal code
 For bulkhead connectors, receptacles and angled receptacles corresponding field is marked „00“.

端子:
 内部代码
 NN 00 = 端子未包含在交付内容中。
 请使用标识的物品编号单独订购。

Contacts:
 internal code
 NN 00 = contacts not part of delivery contents.

* Please order separately with denoted item number.

MALE / 公头			FEMALE / 母头		
OLD / 旧	NEW / 新	CONNECTION / 连接	OLD / 旧	NEW / 新	CONNECTION / 连接
MR	M	CRIMP	FR	F	CRIMP
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 / 混合组件	FU	P	MIXED COMPONENTS / 混合组件
MT	T	SCREWED / 已用螺丝拧紧	FC	C	SCREW M5 LIMOTEC / 螺丝 M5 LIMOTEC
MC	K	SCREW/CRIMP / 螺丝/压接 762 系列			
MM	A	618 TORQUE			
NN	N	NO CONTACTS / 无端子	NN	N	

Finding a TE Part Number - 15 digits

INTERCONTEC PART NUMBER: 60.004.11

Part Number (Old)	Position/位置 1	Position/位置 2	Position/位置 3	Position/位置 4	Position/位置 5	Position/位置 6	Position/位置 7	Position/位置 8	Position/位置 9	Position/位置 10	Position/位置 11	Position/位置 12	Position/位置 13	Position/位置 14	Position/位置 15
	Letter / Number 字母/编号	Letter / Number 字母/编号	Special Character	Letter 字母	Number 编号	Number 编号	Number 编号	Special Character	Letter / Number 字母/编号	Letter Number 字母/编号	Letter / Number 字母/编号	Special Character	Letter 字母	Letter / Number 字母/编号	Letter / Number 字母/编号
10.415.02	1	0	.		4	1	5	.		0	2				
60.004.11	6	0	.		0	0	4	.		1	1				
60.046.21.015	6	0	.		0	4	6	.		2	1	.	0	1	5
81.139.T92	8	1	.		1	3	9	.	T	9	2				
8C.001.01.001	8	C	.		0	0	1	.		0	1	.	0	0	1
A6.032.F15	A	6	.		0	3	2	.	F	1	5				
BB.182.00-SW	B	B	.		1	8	2	.		0	0	-	S	W	
FF.051.00.010	F	F	.		0	5	1	.		0	0	.	0	1	0
40.A132.00	4	0	.	A	1	3	2	.		0	0				

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

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

采用 AWG 和 mm² 表示的常用铜线转换表

Conversion table of prevalent copper wires in AWG and mm²

符合 DIN EN 60529 的 IP 防护等级

IP protection rating according to DIN EN 60529

电线横截面 Wire Cross-Section		电线直径 Wire Diameter		
AWG	mm ²	sq. inches	mm	inches
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

第 1 位 1 st Digit	定义 Definition	备注 Comment
IP 等级 No.		
0	无防护 No protection	
1	可承受直径为 50 mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 50 mm or larger.	
2	可承受直径为 12.5 mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 12.5 mm or larger.	
3	可承受直径为 2.5 mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 2.5 mm or larger.	
4	可承受直径为 1 mm 或更大的固体异物。 Protected against solid foreign objects with a diameter of 1 mm or larger.	
5	防尘。 Dust-protected.	进尘不是完全可预防，但进尘量不会干扰仪器的满意运行或影响安全。 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	尘密 Dust tight	无灰尘进入 No ingress of dust

符合 DIN EN 60529 的 IP 防护等级

IP protection rating according to DIN EN 60529

第 2 位		2 nd Digit
序号 No.	定义 Definition	备注 Comment
0	无防护 No protection	
1	可承受垂直掉落的水滴 Protected against vertically falling water drops	
2	可在外壳倾斜高达 15° 时承受垂直掉落的水滴 Protected against vertically falling water drops when housing ist tilted up to 15°	
3	承受喷水 Protected against water sprays	从垂直轴任一側按 60° 角度的喷水不会有任何危害影响。 Water sprayed at a 60° angle from either side of the vertical axis, shall have no harmful effect.
4	承受溅水 Protected against splashed water	针对外壳从任何方向的溅水不会有任何危害影响。 Water splashed against the housing from any direction shall have no harmful effect.
5	针对外壳从任何方向作为强大喷射气流的溅水不会有任何危害影响。 Water splashed as powerful jet against the housing from any direction shall have no harmful effect.	
6	针对外壳从任何方向作为喷射气流的溅水不会有任何危害影响。 Water splashed as jet against the housing from any direction shall have no harmful effect.	
7	可承受临时浸水的影响 Protected against the effects of temporary immersion in water	将外壳浸入水中 1 m 位置 30 分钟时, 进水量不会产生有害影响。 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	可承受长期浸水的影响 Protected against the effects of long submersion in water	在制造商和用户商定的条件下, 将外壳持续沉浸在水中时, 进水量不会产生有害影响。这些条件必须比前面 7 项条件更严重。 Water may not enter in such quantity as to cause harmful effects when the housing is continuously submersed 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	可在高压/蒸汽清洗时防止水渗入 Protected against the penetration of water during high pressure / steam cleaning	从任何方向进入外壳的水和增加的压力不会有任何有害影响。 Water directed at the housing from any direction and with increased pressure shall not have any harmful effect.

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TE Connectivity

工业解决方案

Pfnorstrasse 1

64293 Darmstadt, Germany

电话: +49 (0)6151 607 1695

www.te.com

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