

2018 Edition



# Industrial Connector

专业连接器制造商

Professional Connectivity Manufacturer



# Push-Pull Connector

推拉自锁连接器

Designed for Quick and Stable Installation



[www.finecables.com](http://www.finecables.com)

# Products Applications

## 产品应用行业



Industrial Automation  
工业自动化



Medical Industry  
医疗行业



Aerospace and Drone  
航天航空, 无人机



Telecommunication System  
通讯系统



Measuring & Testing  
测试测量



LED Lighting  
LED照明



军工安保  
Military and Security



影音广播系统  
Broadcast System



Railway Transportation System  
轨道交通



Escalator control  
电梯控制



Boat Navigator  
船舶导航



Automotive  
新能源



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## > About Finecables

Finecables, established in 2003, is committed to being the world's leading manufacturer in industrial connectivity. At Finecables, we combine a strong customer focus along with a wealth of practical industry experience in order to provide our clients all around the world with reliable and innovative connectivity products as well as excellent customer service. Additionally, we continue to extend our self-owned brand @ Finecables in various applications by developing customized products, which cover not only PUSH PULL connectors & industrial connectors, but also electronic interconnection and data networking. Our production capacity is already more than 50 million PCS yearly.

## > 关于协顺

东莞市协顺电子科技有限公司(简称“协顺”“Finecables”),成立于2003年,致力于成为世界领先的连接产品制造商。协顺始终坚持以顾客为中心,凭借丰富的行业经验,努力为客户提供优质的产品、创新的终端解决方案以及一流的技术和服务。协顺自主品牌Finecables系列产品领域应用广泛,不但包括Push-Pull 推拉自锁圆形连接器与工业防水连接器,也涉及到网络互联和数据传输等相关电子连接产品,协顺具备年提供五千万+产品的规模生产能力。



## > Products

Through continuous innovation and cutting edge research and development, we continue to expand our product portfolio vastly beyond wire harnesses and industrial connectors. Our current portfolio includes:

- Circular Connectors for industrial applications:(M5/M8/M9/M10/M12/M16/M20/7/8"/M23/RD24)
- Solenoid Valve Connectors for Pneumatic, hydraulic and electro-magnetic applications (Size A/B/C)
- Industrial I/O Connectors for data transmission network (USB/RJ45/Mini-Din/D-SUB/UHF)
- ISO-BUS Connectors and Junction Boxes for field-BUS network control (4/6/8-port M5/M8/M12 connectors with 7/8"/M23 connectors)
- Railway Transportation System and automobile wire/cable harness assemblies
- Temperature Sensors and Wire/Cable Harness
- Customized Solutions

## > 产品

作为集设计、制造、销售与服务为一体的专业线束连接产品与工业连接器制造商，协顺根据客户需求，坚持创新，不断开发新产品，为广大客户提供如下产品：

- 插拔自锁系列圆形连接器；
- 圆形连接器（应用于工业领域）：M5/M8/M9/M10/M12/M16/M20/7/8"/M23/ RD24)
- 电磁阀（应用于电气动力及电磁制动领域）：A/B/C 型电磁阀
- 数据输入/输出连接器（数据传输网络）；USB/RJ45/Mini-Din/D-SUB/UHF
- ISO-BUS 和分线盒连接器（M5/M8/M12分线盒4/6/8位，带7/8"/M23连接头），用于现场总线领域。
- 轨道交通、汽车线束组件
- 温度传感器和线束组件
- 客制化解决方案





## > R & D

With years of experience and technological acquisition and accumulation in industrial connectivity, the R&D team at Finecables utilizes powerful tooling ability and productivity to continue to raise the bar for industry standards. Our unique competitive advantage allows us to research and develop innovative total solutions and fully realize our customer's specific requirements and requests. So far, Finecables developed over 20,000 kinds of connectors totally.

## > Quality

Quality is to Finecables what health is to human beings; the core competence of products shall base on its superior performance and reliable quality. Our commitments on "high quality" come from our team's comprehensive understanding in quality. We have designed strict audit and quality control process to assure ourselves and our suppliers are offering the best practice. ISO 9001:2008 ISO 14001:2004 and OHSAS 18001:2007 ISO/TS 16949 represent our quality value.

Finecables fulfills its core value of "Promptness, Excellence, Awareness, and Gratitude", by insisting our long-term partnership and win-win cooperation with both customers and suppliers.



## > 研发

基于多年来在连接器领域丰富的行业经验和深厚的技术沉淀，以充足的产能和模具设计制造能力为支持配合，协顺研发团队，根据客户实际产品应用，不断开发设计新产品，满足客户特殊需求，现已开发出两万多种连接器。

## > 品质

产品品质对于协顺犹如健康对于人们一样重要。协顺的一切工作都以产品优质的性能和值得信赖的质量为基础。公司致力于“高品质的产品”的理念，源于整个团队对品质的全面深入理解。我们开发一套严格的程序审核和质量管控流程，确保我们和我们的供应商为客户提供优质的服务和高品质的产品，从而证明我们的价值观——用激情连接世界！

## Push-Pull Circular Connector

### 推拉自锁圆形连接器

The push-pull connectors integrate the push lock mechanism together with audible and tactile feedback, Finecables's Push-pull series connectors is the ideal mating solution for fast and easy operation in medical and industrial applications.

协顺公司推拉自锁圆形连接器(PUSH-PULL)产品具有视觉定位标示, 听觉定位反馈的推拉自锁装置, 实现了在医疗和工业领域快捷简易的理想配对安装方案。

### B SERIES FEATURES

- Multipole types 2 to 32 contacts
- Endurance > 5000 cycles
- Connector insert: PEEK
- Shielding: 360°
- Ambient temperature: -55°C~+200°C
- Environment: Indoor
- Series: 00、0B、1B、2B、3B

#### B系列特点

- 多芯2-32芯
- 插拔次数>5000
- 胶芯材料: PEEK
- 屏蔽360°
- 适用温度: -55°C~+200°C
- 适用环境: 室内
- 系列号: 00、0B、1B、2B、3B



### K SERIES FEATURES

- Multipole types 2 to 32 contacts
- Endurance > 5000 cycles
- Connector insert: PEEK
- Shielding: 360°
- Ambient temperature: -55°C~+200°C
- Environment: outdoor
- Series: 0K、1K、2K、3K

#### K系列特点

- 多芯2-32芯
- 插拔次数>5000
- 胶芯材料: PEEK
- 屏蔽360°
- 适用温度: -55°C~+200°C
- 适用环境: 室外
- 系列号: 0K、1K、2K、3K





## S SERIES FEATURES

- Triaxial Coaxial
- Endurance> > 5000 cycles
- Connector insert: PTFE
- Shielding: 360°
- Ambient temperature: -55°C~+150°C
- Environment: Broadcast system
- Series: 0S、1S



## S系列特点

- 三同轴
- 插拔次数>5000
- 胶芯材料: PTFE
- 屏蔽360°
- 适用温度: -55°C~+150°C
- 适用环境: 广播电视系统
- 系列号: 0S、1S



SR.Bend relief 护套网尾

## P SERIES FEATURES

- Multipole types 2 to 26 contacts
- Endurance> > 2000 cycles
- Connector insert: PEEK
- Ambient temperature: -55°C~+150°C
- Environment: Indoor
- Series: 1P、2P

## P系列特点

- 多芯2~26芯
- 插拔次数>2000
- 胶芯材料: PEEK
- 适用温度: -55°C~+150°C
- 适用环境: 室内
- 系列号: 1P、2P





## M5 Circular Connectors

### M5 圆形连接器

The M5 Series is specifically developed for the miniature sensor market and any similar applications that require multiple sensors within a miniaturized area. This product line offers both 3 and 4 Pins cable cord-sets and a range of panel-mount receptacles. All connectors are either over-molded on PUR/PVC cables or panel-mount receptacles with a solder-cup for wire connecting or with PCB termination for dip solder. In locked condition, this series can meet IP67 rating.

随着自动化领域的元件的高度集成化，元件也越来越小型化，如M5系列连接器，有3芯、4芯结构，分为注塑成型式和面板式（焊接型端子、PCB型端子）的，可以焊接PUR/PVC线材，或者PVC电子线。达到IP67防护等级。



M5 Molded Cable Connector 注塑成型式



M5 Panel-mount Connectors 面板式



## FEATURES

- Degree of protection IP 67
- 3, 4 poles are available
- Shielded or Non-shielded available
- Cable length customized, PUR and PVC cable options

## 特点

- IP67 防护等级
- 3,4 芯供选择
- 屏蔽式和非屏蔽式
- PUR/PVC 线材外被，线材长度及尾部客制化处理



## M8 Circular Connectors

### M8 圆形连接器



M8 Molded Cable Connector 注塑成型式



M8 Field Wirable Assembly 组装式

### FEATURES

- Degree of protection IP 67
- 3, 4, 5, 6, 8 poles are available
- LED indicator version is available
- Anti-vibration locking screw design
- Cable length customized, PUR and PVC cable options

### 特点

- IP65/67 防护等级
- 3, 4, 5, 6, 8 芯供选择
- 可注塑成型LED指示灯, 诊断线路连接
- 特殊防震螺纹锁紧结构设计
- 螺纹锁紧式、快锁式、插拔式等锁紧方式
- PUR/PVC 线材外被, 线材长度及尾部客制化处理



M8 terminator with LED  
M8 终端器



M8 Panel-mount Connectors 面板式

The M8 Series provides a wide range of metric M8 connectors for small sensors and actuators. Available in a shielded form and rated to IP67, these connectors are ideally suited for industrial control networks where small sensors are required. Connectors are either factory TPU over-molded or panel receptacle supplied with a solder-cup for wire connecting or with PCB panel solder contacts. A field attachable/mountable connector is also available.

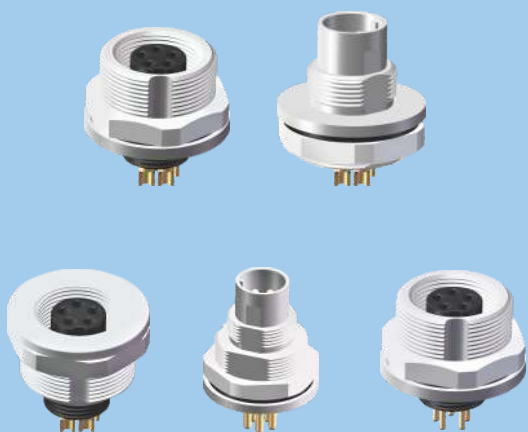
M8系列圆形连接器为小型或特殊工业用途的机械工程提供了实用、经济和灵活的解决方案, 并满足了在有限空间内迅速无误地连接要求。该系列有不同型号, 有注塑成型与装配式, 面板式, 分支器、终端器等类型; M8 圆形插头连接器, 即使在苛刻恶劣的环境下, 自由组装式连接器都能确保稳定的传输性能。

## M9 Circular Connectors

### M9 圆形连接器

M9 series enrich our circular connector family. With their metal housing design structure, they can reach 360° EMI shielding. Meanwhile, they can reach excellent environmental protection at IP67 in locked condition. 2~8 pins are optional upon user's request. Moreover, over-molded types, panel-mount types with solder termination as well as PCB termination are available for your applications.

M9系列产品丰富了我们圆形连接器产品种类。金属螺纹配合结构，可达到360°全屏蔽。同时，锁紧状态下，可以实现IP67防护等级。可以根据客户应用需要，选择2~8芯产品。成型式、面板式（焊接型&PCB型）可选。



M9 Panel-mount Connectors 面板式



M9 Molded Cable Connector 注塑成型式

### FEATURES

- 2~8 pins available
- Metal housing connector structure for 360° EMI shielding
- Over-molded, panel-mount with solder/PCB termination optional
- Degree of protection IP67
- Cable length customized
- Lower ambient temperature: -40°C (customized)

### 特点

- 2~8芯 可选
- 金属配合螺纹结构，实现360°全屏蔽
- 成型式、面板式（焊接型&PCB型）可选
- P67防护等级
- 线材定制化
- 固定安装可以实现-40℃耐寒温度

## M10 Circular Connectors (snap-in)

### M10 圆形连接器

This type of connector is commonly used for small applications in medical and commercial industries. The push-pull cable connector enables a seamless mating process, and is available in both male and female versions with 5 and 9-gold plated contacts. When properly mated, the connection is sealed to an IP65 rating, protecting the connection from the ingress of liquids and debris.



M10 Panel Mount Connectors 面板式



M10 Molded Cable Connector 注塑成型式

M10系列链接器具有快速插拔、便捷安装等优势，广泛应用于医疗器械和机械领域。公母头（5~9芯）可供客户选择。在配合对插状态下，可以达到IP65防护等级。



M10 T-Splitter T型分配器

## FEATURES

- Degree of protection IP 65
- 5, 9 poles are available
- Cable length customized, PUR and PVC cable for options

### 特点

- IP65 防护等级
- 5,9 芯供选择
- 客户定制化线材长度，PUR 或者PVC可选



M10 Protection Cap 防护盖

## M12 Circular Connectors

### M12 圆形连接器

The M12 series features sensor and actuator connectors with a locking thread for electronics automation, process control, and commercial electronics. We offer many different cable connectors, panel mounted receptacles, field attachable/installable connectors and various accessories. Our connectors have industry-standard A,B,C, D,S,T,X cording, for both screw-locking and quick-locking styles.

广泛应用于工业自动化、轨道交通、船舶及新能源等领域，产品种类涵盖：成型带线式、组装式、面板式等结构，机械防呆接口有A、B、C、D、S、T、X等类型。防护等级可达到IP67、IP68、IP69K，有屏蔽型结构可选。



M12 Panel Mount Connectors 面板式



M12 Field Wirable Assembly 组装式



M12 Molded Cable Connectors 注塑成型式





M12 Cable Splitters 成型式分支器



M12 I/T/Y-Splitters I/T/Y型分支器

## FEATURES

- IP67/68/69K approvals
- 2~17 poles are available
- A,B,C,D,S,X,T codings are available
- 360° Shielded or non-shielded versions are available
- Right angled PCB panel connector is available
- TPU over molded, PA+GF or metal shell
- T-splitter and Y-splitter are available
- Anti-vibration locking screw design
- Cable length customized, PUR and PVC cable options
- With connector over-molded on Profibus/DeviceNet/CAN-BUS cables (OD 11mm max.), plus customized cable end process

## 特点

- IP67/68/69K防护等级
- 2~17芯供选择
- PCB型、焊接型、锁螺丝型、压接型端子
- A/B/C/D/S/T/X- Coding 工业接口防呆类型
- 注塑成型式、组装式、面板式、转接器、分支器、终端器、带LED式等类型
- 螺纹锁紧式、快锁式、快速插拔式等锁紧方式
- 线材外被PVC、PUR可选
- Profibus、DeviceNet、CAN-BUS(线径OD最大可达11mm)线材可用，以及客制化尾部处理方式



M12 terminator 终端器



M12 Molded Profibus/  
DeviceNet Cable 协议线材

## M16 Circular Connectors

### M16 圆形连接器

The M16 Series is an ideal choice for intensive industrial and commercial applications. Over-molded cable and panel-mount receptacles are available in various styles and mounting methods. Quick-locking wiring assembly type is also available.

M16系列圆形连接器，专门为客户特殊应用领域开发的产品。该系列分为注塑成型式、组装式、面板式。快锁锁紧结构设计便于客户现场安装使用。



M16 Screw-on Series 螺纹式



M16 Connector Accessories 组装工具

### FEATURES

- IP65/67 degree of protection
- 8,9 Poles available
- Quick-lock design, easy for installation on site.
- Over-molding cable, field wirable assembly and panel-mount (solder type & PCB type)available
- Customized TPU/PVC cable length and ends

### 特点

- IP65/IP67 防护等级
- 8,9 芯供选择
- 快锁锁紧结构设计，现场安装使用简易
- 注塑成型式，组装式，面板式(焊接型端子&PCB式端子)
- PUR/PVC线材长度和尾部客制化处理



M16 Quick-lock Series 快锁式

## M20 Circular Connectors

### M20圆形连接器



M20 Molded Cable Connectors 注塑成型式



M20 terminator 终端器

### FEATURES

- IP67 degree of protection
- 3+5 hybrid Poles design available
- Over-molding cable, panel-mount (solder type & PCB type) U-adapter available
- Customized TPU/PVC cable length and ends

### 特点

- IP67 防护等级
- 3+5混合式芯组合设计
- 注塑成型式，面板式(焊接型端子&PCB式端子)和 U型转换器
- TPU/PVC 线材长度和尾部客制化处理

With our intelligence and endeavor, the M20 series has been successfully developed, for the fields of intelligentized lighting, stage lighting control system, architectural and LED series. This series is divided into straight over-molding and panel-mount types. Their 3+5 hybrid-pole design is able to ensure signal and power transmission simultaneously. Fix screw locking system can meet IP67 rating in fully locked condition.

M20系列连接器专门为客户特殊设计，主要应用于智能照明，专业舞台灯光控 LED演艺照明、LED建筑照明、LED商业照明等相关控制系统。该系列包含注塑成型式和面板式和U型转换器三类。3+5混合式针组合保证信号和电源同时传输。可以达到IP67 防护等级。



M20 Panel Mount Connectors 面板式



M20 U-splitter U型转换器

## Mini-change 7/8" Connectors

### Mini-Change 7/8" 连接器

The 7/8" mini-change connectors are mating compatible with industry mini-change connectors, and are designed for both signal and high-electricity current applications. The connection is sealed to an IP67 rating, with molded cable and panel receptacles available. Contacts are gold-plated, with a stainless steel locking sleeve also available as an option.

7/8"连接器适用于欧洲和北美市场，3~16针，承受额定电流4A~13A适用于信号与电源传输。该系列包含成型式、组装式、面板式和分支器，可以达到IP67防护等级。



7/8" Molded Cable Connectors 注塑成型式



7/8" Field Installable Connector with Screw Termination  
7/8"组装式（锁端子型）

## FEATURES

- IP67 in locked condition
- Straight or 90° Angled field installable connectors with screw joint termination
- Excellent construction and easy mating and assembly satisfy sensor/actuator devices requirements
- 3,4,5,16 poles are available
- Operating voltage AC/DC 300V, rated current: 4A~13A
- I/T/Y-splitter/adaptor are available for signal and power distribution within limited space





7/8" Panel Mount Connectors 面板式

### 特点

- IP67 防护等级
- 直头和90° 弯头可供选择
- 特殊设计结构，安装简易，适用于传感器、执行器的设备要求
- 3,4,5,16芯，可以承受300V电流，额定电压4A-13A
- I/T/Y 型分支器、转接器，在有限的空间内实现信号和电流的分流



Mini-Change 7/8" I/T/Y-splitter/adapter I/T/Y 转接器、分支器

## M23 Circular Connectors

### M23 圆形连接器

The circular M23 Series is a waterproof connector specifically designed and developed for use in intensive, demanding operational conditions. It ensures operational stability and high-level performance under moisture, vibration, and temperature fluctuations. The circular M23 Series is utilized in a wide-range of applications, such as industrial automation machinery, railway transportation and medical equipment. Due to potential variations in electrical currents across various applications, we offer customized pin configurations suited to your specific needs. The circular M23 Series includes a molded cable type along with both assembly and panel type, which is designed for primarily transferring both power and analog or digital signals. A metallic external shield is also available, with removal internal plastic components and terminals.



M23 Field Wirable Assembly 信号类组装式



M23 Panel Mount Connectors 信号类面板式

M23 Signal Accessories 信号类组装工具



M23 Signal Series 信号类成型式



M23系列防水连接器专为苛刻的工业作业环境而设计开发的，兼具防水、耐潮、防振及外力撞击等特点。该系列连接器应用广泛，如，工业自动化机械、轨道交通设备和医疗设备。为应对电流变化而定制引脚结构。M23系列细分为成型注塑式，组装式和面板式，主要用于电源传输和模拟或数字信号传输等应用；外部金属全屏蔽，内部塑胶部件和金属端子可以拆卸组装。

M23 Power Series 电源类成型式

## FEATURES

- IP67 in locked condition
- 6,7,8,9,12,16,17,19 poles are available
- Straight / 90 ° Angled molded cable connectors for Signal or Power applications
- 360 ° EMC shielding is available for molded cable type
- Robust TPU over-mold or Metal shell
- Anti-vibration locking screw design
- PUR and PVC cable jacket option
- Customized cable length



M23 Field Wirable Assembly 电源类组装式

## 特点

- IP67 防护等级
- 6,7,8,9,12,16,17,19 芯供选择
- 注塑成型式直头和90° 弯头
- 360° 全屏蔽抗干扰
- 牢固TPU成型或金属外壳
- 防震螺丝锁紧设计
- PUR或PVC线材外被可选
- 线材尾部客制化处理



M23 Panel Mount Connectors 电源类面板式

## RD24 Circular Connector

### RD24 圆形连接器

We have extended our range of circular connectors provided with the addition of the RD24 series. This series is divided into over-molded cables, field wiring assembly, and panel mount type, offered with 3+PE or 6+PE poles. Screw joints and soldering termination is available for connecting systems. When in a locked condition, this series is sealed to an IP67 rating.

RD24系列连接器已经成功开发，丰富了我司圆形连接器的范围。该系列主要应用于石油、天然气等能源领域的驱动控制系统。目前有注塑成型式、组装式、面板式，2/3/4/7公/母直头。锁紧状态下，可以达到IP67防护等级。



RD24 Molded Cable Connectors 注塑成型式



RD24 Panel Mount Connectors 面板式



RD24 Field Wirable Assembly 组装式

## FEATURES

- IP67 degree of protection
- 2/3/4/7Poles available
- Over-molding cable, field wirable assembly and panel-mount (screw joint/solder type) available
- Customized PUR/PVC cable length and ends
- Application: commonly used in the energy drive control system, like oil and gas fields.

## 特点

- IP67 防护等级
- 2,3,4,7芯设计
- 注塑成型式，组装式，面板式（锁端子式和焊接式）
- PUR/PVC 线材长度和尾部客制化处理
- 主要应用于石油、天然气等能源领域的驱动控制系统



## ISO-BUS 11783 Connectors

### ISO-BUS 11783 连接器



ISO-BUS Molded Cable Connectors 注塑成型式



ISO-BUS Panel Mount Connectors 面板式

The ISO-BUS standard specifies a serial data network for control and communications on forestry or agricultural tractors and implements. It consists of several factors; general standards for mobile data communication, physical layer, data link layer, network layer, network management, virtual terminal, messaging application implementation layer, power train messages, tractor ECU, task controller and management information data interchange, mobile data element dictionary diagnostic, and file server management.

ISO-BUS 11783标准是应用于农业森林机械的串行网络通信协议。它由如下几部分组成：移动数据通信物理层，数据链路层，网络层，网络管理，虚拟终端通用标准，实施信息应用层，动力传动系信息，拖拉机的ECU，任务控制和管理信息系统的信息交换等等。

### FEATURES

- Solid-coated with plastic injection technique
- IP65 in locked condition
- Reliable electrical characteristics against vibration, condensation.
- Plug, socket and flange socket available for your option
- Customized cable length and ready to use
- IP65防护等级
- 固定外壳注塑成型技术
- 稳定电气性能，防震，防压缩冷凝
- 快锁式设计，成型式公母头和面板式母头
- 线材尾部客制化处理

## Junction Boxes M5,M8, M12

### 分线盒 M5/M8/M12

Our sensor/actuator junction boxes provide more extension possibilities to industrial field control systems. Our M5/M8/M12 series junction boxes are available in 4, 6, or 8 port setups with either 4 or 5 poles per port. The master cable can be configured via a 7/8", M23 connector, or a pre-molded cable on the junction box.



M5 Junction Boxes 分线盒



M8 Junction Boxes 分线盒

分线盒可以有条不紊的将传感器和执行器连接起来，达到现场总线控制。多位式M8/M12分线盒额外匹配M12/7/8"/M23连接头，便于实现一对多的端口数据信号传输，节约成本，安装简易。同时，端口处有显眼的LED指示灯，可以方便对线路进行诊断。

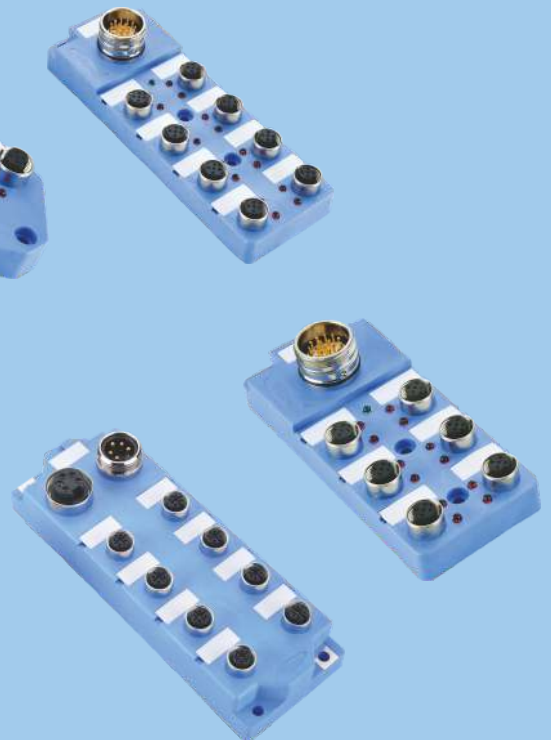


## FEATURES

- IP 67 in locked condition
- 4/6/8-Port M5/M8/M12 Junction Box, with M12, 7/8" or M23 connector
- Marking tags/holder at each port allows for connecting identification
- LED indicators for easy power and signal status indication
- Offer customized cable solutions

## 特点

- IP67 防护等级
- 4/6/8位 M5/M8/M12分线盒，带M12、7/8"、M23连接头
- 每一位自带白色标记卡，便于连接标识
- LED指示灯，诊断线路连接
- 线材尾部客制化处理



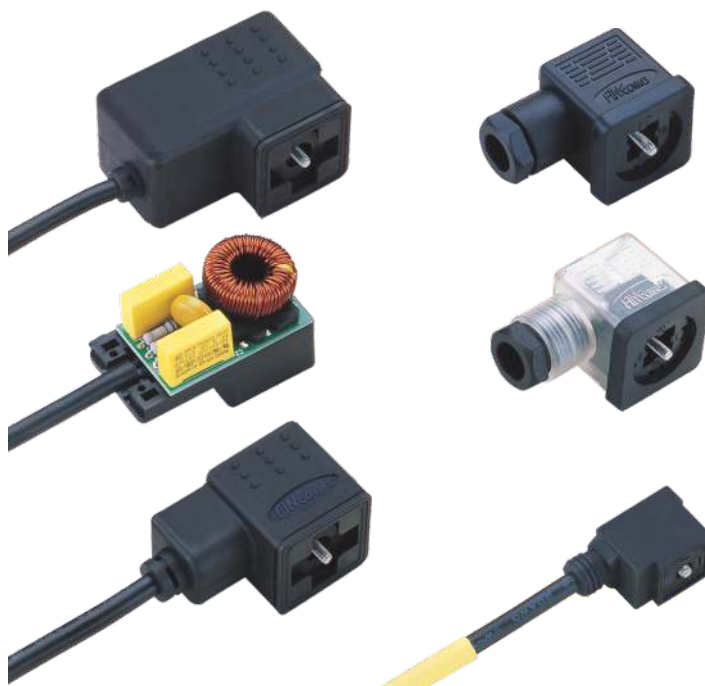
M12 Junction Boxes 分线盒

## Valve/Solenoid Plugs

### 工业电磁阀连接器

Our pre-molded valve plugs provide a compact and robust connection solution for the secure transmission of voltages and currents for pneumatic, hydraulic, and electromagnetic actuators. The current range includes versions of A, B, and C set series, with an integrated protective circuit to reduce voltage spikes.

传统型电磁阀连接器是基于预装配，新一代的连接以套件式供应，大大减少部件组装的时间。新一代DIN电磁阀连接器（A型、B型、C型）旨在提高性能和可靠性，符合IP67超高密封性能和卓越的配线设计并满足降低产品应用于液压，气动和电磁设备的成本。







## FEATURES

- IP65/IP67 sealing performance from dust and waterproof
- A, B, C type
- Over-molded, assembly and base types
- Central nut screw locking type for Vibration
- High reliability in harsh environment
- LED display is available
- Operating voltage 24V/250V, Rated current 8A/10A/16A
- Ambient temperature:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ ,  $-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$

## 特点

- IP65/67 防护等级
- A/B/C 三种型号
- 注塑成型式、组装式，圆形或方形板式底座
- 中央螺丝结构，防震锁紧设计
- 恶劣环境下，工作稳定
- 可以带LED指示灯，便于诊断线路连接
- 工作电压：24V/250V，额定电流8A/10A/16A
- 工作温度范围： $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ ； $-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$



## Industrial I/O Connectors

### 工业网络信号传输（输入/输出）连接器

Industrial Ethernet now links automation technology to standard networks and the Internet world. We are proud to lead the way in standard connectors linking the office world to the demanding industrial setting and offer special solutions for cabling and assembling. Our I/O connectors are sealed to an IP67 rating, along with EMC protection. We offer various Ethernet products, including RJ45 connectors, USB, Mini-DIN, D-sub connectors, and UHF connectors.

标准化的数据接口被用于工业应用场合,从而满足了复杂生产系统的分布式控制以及日益提高的对信息和数据快速传输的要求. 与办公环境相比,工业环境对连接器、连接方式和布线方式有更严格的要求。协顺以其专业的技术与研发能力为传统的标准办公室网络接口向苛刻的工业网络连接发展提供可靠的解决方案。其主要工业数据传输产品包括：IP67-USB、MINI-DIN、RJ45、UHF、M12-RJ45,D-SUB等工业防水、防尘、防油连接器。



## FEATURES

- IP67 rating connector interface
- MINI-DIN、USB、Mini-USB、RJ45、UHF、D-SUB、Micro D-sub
- Excellent construction and Easy mating and assembly
- Standard and customized cable assemblies
- Plastic, metal and customized shell options
- Ambient temperature:  $-25^{\circ}\text{C} \sim +80^{\circ}\text{C}$



## 特点

- IP65/67 防护等级
- MINI-DIN、USB、Mini-USB、RJ45、UHF、D-SUB、Micro D-sub
- 设计结构精巧，安装简易
- 塑胶、全金属或客制化外壳
- 工作温度范围：  $-25^{\circ}\text{C} \sim +80^{\circ}\text{C}$



## Wire/Cable Harness Assembly

### 客制化线束组件

FINECABLES can be your One Source for all your custom and standard cables needs. We provide with a wide range of standard and customized wire harnesses and cable assembly for both power and data transmission solutions and consist of various types and sizes of wire, solder and crimp type terminals and pins, along with various electrical components specified by our customer.

在线束组件加工领域，协顺致力于成为客户一站式线束组件供应商与服务商。协顺线束与组件制造加工业务为客户提供国标与客定规格线材产品，涵盖用于数据与电源传输方面的各种规格线缆、端子/连接器与电子配件的加工制造。协顺线束组件产品主要适用于：工业自动化配线、机电产品内部连接、音视频配线、汽车控制系统、医疗设备输入输出系统、照明与电源配线，及电脑周边用线。







## FEATURES

- Over-molded internal and external
- Mechanical and electrical design, development, test and prototype support
- Polarized housings
- Customized solutions
- Complete electrical and functional testing
- RoHS Compliant

## 特点

- 内外模注塑成型式技术
- 机电设计，模具开发，测试与样品支持
- 带极性定位号胶芯
- 客制化解决方案
- 100%电性功能测试
- 符合RoHS

## Wire/Cable Harness Assembly For Automobile

### 汽车线束组件

ISO/TS 16949 is an internationally recognized Quality Management System specification for the automotive industry. It contains all of the requirements of ISO 9001 system and defines the QMS requirements for automotive suppliers throughout the automotive industry supply chain. Following ISO/TS 16949 certification core values, Finecables will supply you high quality cable harness for automobiles, assisting your further progress and achievements in automotive industry.

ISO/TS 16949, 即“质量管理体系 - 汽车行业生产件与相关服务件的组织实施 ISO9001:2009的特殊要求”是国际汽车行业的技术规范, 是基于ISO9001的基础, 加进了汽车行业的技术规范。协顺科技 (Finecables) 将汲取ISO/TS 16949 体系的精髓, 为全球客户提供优质的汽车领域线束组件产品, 协助贵司在汽车领域取得进一步成就。



## FEATURES

- High Voltage Testing Cable Harness
- BMS Gathering & Balance Cable Harness
- All-in-one Master Control Harness
- 100% multi-functional and electrical test
- For railway transportation system automobile industry.
- Robust and reliable products are designed per TS 16949 standards
- Customized wire/cable harness assemblies available
- Joint development with R&D and inner/over-molding facilities support



## 特点

- 高压检测线
- BMS 采集线均衡线
- 一体机主控线
- 100%电性功能测试
- 应用于轨道交通和汽车领域
- 执行TS16949标准，产品可靠、耐久
- 可定制化线束组件产品
- 专业研发团队以及模具设备支持联合开发

## Temperature Sensor Cable

### 温度传感器

FINECABLES sensor cable enables you keep track of the temperature in and outside a building. FINECABLES sensor product range includes NTC, PT100, PT200, PT500 and PT1000 sensors and transmitters and available in a wide range of mounting versions.



### CATEGORIES

- Room temperature sensors
- Outside temperature sensors
- Duct temperature sensors
- Immersion temperature sensors
- Room humidity sensors
- Duct humidity sensors
- Outside humidity sensors
- High temperature sensors

### 种类

- 室内温度传感器
- 室外温度传感器
- 管道温度传感器
- 浸入式铂热电阻传感器
- 室内湿度传感器
- 管道湿度传感器
- 室外湿度传感器
- 高温传感器

协顺依托在业界的强有力的协作能力，在温湿度传感器产品领域协顺已有多多年为客户提供OEM/ODM工业用于民用温度传感器的加工生产经验。产品主要的特性有：灵敏度高、反应迅速；电阻值和B值精度高、一致性互换性好；采用双层密封工艺，具有良好的绝缘密封性和抗机械碰撞、抗折弯能力、稳定性好、可靠性高。主要适用于：空调、冰箱、冷柜、热水器、饮水机、暖风机、洗碗机、消毒柜、洗衣机、烘干机、恒温槽等。



## Total Solutions Servicet

### 整体解决方案

For doing its customers strong support and service them better, Finecables provide customers with complete solutions including technical parts, design assistance, Customized final test and packing and logistic assistance services.

为更好的为客户提供优质的服务与解决方案，协顺通过多年经验积累与战略协作厂商的开发，在为客户提供连接方案的同时也为客户提供相关：塑料部件、五金配件、电路板组件、产品装配包装及物流等整体配套服务方案。



### 特点

- 熟谙连接器行业领域， 经验丰富
- 前期项目设计协助支持， 快速打样测试
- 提供模具设计， 以及客制化外模注塑成型生产能力
- 设计PCB和PCBA
- 产品组装、成品测试和多样性包装
- 高品质、低成本、交期准

### FEATURES

- Well-understanding of the philosophy in industrial connectivity
- Design assistance and prototype building
- Mold design and plastic injection
- PCB and PCBA
- Final products test and assembly & package
- High quality, reasonable cost and timely delivery

## 用激情连接世界!

### 全球销售:

Global Sales & Marketing:

Headquartered in South of China, Finecables maintain contacts with customers throughout the world. Internationally, you can get in touch with Finecables by contacting our branches or regional distribution partners as below:

协顺总部位于中国华南，迎接全球客户；您可以通过我们各区域办事处，分公司或者代理商，在全球范围内联系到我们，期待与您合作!



China

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用激情连接世界!



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