

2019



NMEA 2000 Cables & Connectors

For Marine & Vessels

CREKEN
(주)크레켄

FINECABLES®

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.

Corporate Culture

Finecables' corporate culture consists of passion, dedication and commitment. We are greatly enthusiastic about what we do and helping our customers realize their dreams and ambitions. We are committed to industrial connectivity and place great emphasis on building long-term partnerships and mutually beneficial relationships with both customers and suppliers. Very simply, we are your ideal business partner!

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:

- NMEA 2000 cable connectors for marine & vessels
- Push-Pull Connectors for medical and industrial applications: Series B/K/S/P
- 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)
- Temperature Sensors and Wire/Cable Harness
- Customized Solutions



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 has 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. ISO9001, ISO14001, OHSAS18001, IATF16949, ISO13485 and CE, UL 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.





UL(Underwriters Laboratories) is a safety consulting and certification company headquartered in the United States. UL , established in 1894, provides safety-related certification, validation, testing, inspection, auditing, advising and training services to a wide range of clients, including manufacturers, retailers, policymakers, regulators, service companies, and consumers.

Since 2007 when our Wiring Harness were awarded UL certification, Finecables has applied many UL certificates to ensure our high-quality products are UL approved. For more detail, please visit at: <http://database.ul.com>

UL Overview Table

Company Name	Category Name	Link to File
DONGGUAN FINECABLES CO LTD	Appliance Wiring Material - Component	<u>AVLV2.E343967</u>
DONGGUAN FINECABLES CO LTD	Appliance Wiring Material Certified for Canada - Component	<u>AVLV8.E343967</u>
DONGGUAN FINECABLES CO LTD	Cable Assemblies and Fittings for Industrial Control and Signal Distribution	<u>CYJV.E321413</u>
DONGGUAN FINECABLES CO LTD	Cable Assemblies and Fittings for Industrial Control and Signal Distribution - Component	<u>CYJV2.E321413</u>
DONGGUAN FINECABLES CO LTD	Cable Assemblies and Fittings for Industrial Control and Signal Distribution Certified for Canada	<u>CYJV7.E321413</u>
DONGGUAN FINECABLES CO LTD	Cable Assemblies and Fittings for Industrial Control and Signal Distribution Certified for Canada - Component	<u>CYJV8.E321413</u>
DONGGUAN FINECABLES CO LTD	Communications Cable	<u>DUZX.E466854</u>
DONGGUAN FINECABLES CO LTD	Communications Cable Certified for Canada	<u>DUZX7.E466854</u>
DONGGUAN FINECABLES CO LTD	Connectors for Use in Data, Signal, Control and Power Applications - Component	<u>ECBT2.E364453</u>
DONGGUAN FINECABLES CO LTD	Connectors for Use in Data, Signal, Control and Power Applications Certified for Canada - Component	<u>ECBT8.E364453</u>
DONGGUAN FINECABLES CO LTD	Multi-point Interconnection Power Cable Assemblies for Industrial Machinery	<u>PVVA.E496340</u>
DONGGUAN FINECABLES CO LTD	Multi-point Interconnection Power Cable Assemblies for Industrial Machinery Certified for Canada	<u>PVVA7.E496340</u>
DONGGUAN FINECABLES CO LTD	Wiring Harnesses - Component	<u>ZPFW2.E310634</u>
DONGGUAN FINECABLES CO LTD	Wiring Harnesses Certified for Canada - Component	<u>ZPFW8.E310634</u>
FINECABLES INC	Connectors for Use in Data, Signal, Control and Power Applications - Component	<u>ECBT2.E473386</u>
FINECABLES INC	Connectors for Use in Data, Signal, Control and Power Applications Certified for Canada - Component	<u>ECBT8.E473386</u>

Certificates



CE marking is mandatory for certain product groups within the European Economic Area (EEA; the 28 member states of the EU plus EFTA countries Iceland, Norway, Switzerland and Liechtenstein, plus Turkey). The manufacturer of products made within the EEA and the importer of goods made in other countries must ensure that CE-marked goods conform to standards. Finecables connectors below have been granted of CE EMC/LVD certification, comply with the Low Voltage Directive and the EMC Directive. For more details, please visit at <http://www.bst-test.com/index.aspx>

CE Overview Table

Product Series	Certificates	Certificate No.
M5	CE-EMC	BST12110270Y-1EC-1
M5	CE-LVD	BST12110270Y-1SC-2
M8	CE-EMC	BTRE0708031298
M8	CE-LVD	BTRL0707310407
M8	CE-EMC	BST12110268Y-1EC-1
M8	CE-LVD	BST12110268Y-1SC-2
M12	CE-EMC	BTRE0706080858
M12	CE-LVD	BTRE0706071108
7/8"	CE-EMC	BST12110269Y-1EC-1
7/8"	CE-LVD	BST12110269Y-1SC-2
M23	CE-EMC	BST12060106Y-1EC-1
M23	CE-LVD	BST12060106Y-1ER-1
M23	CE-EMC	BST12060107Y-1EC-1
M23	CE-LVD	BST12060107Y-1SC-2
RJ45	CE-EMC	BST11070093Y-1EC-1
RJ45	CE-LVD	BST11070093Y-1SC-2
Solenoid Valve	CE-EMC	BST10120464Y-1ER-1
Solenoid Valve	CE-LVD	BST10120464Y-1SR-2
Solenoid Valve	CE-EMC	BST10120465Y-1ER-1
Solenoid Valve	CE-LVD	BST10120465Y-1SR-2
Solenoid Valve	CE-EMC	BST10120466Y-1ER-1
Solenoid Valve	CE-LVD	BST10120466Y-1SR-2

NMEA 2000

Cables & Connectors

For Marine & Vessel Applications



About NMEA 2000 Standard

Finecables expands its product family specially targeted for the marine & vessel industry that features the NMEA 2000 standard.

The NMEA 2000 standard has been created to serve the public interest by facilitating interconnection and interchangeability of equipment digital data, minimizing misunderstanding and confusion between manufacturer's equipment, and being helpful to purchasers in their selection of equipment that should be compatible with each other.

One important design requirement has been to provide for mission critical data and network operations. This standard defines data formats, network protocol, and the minimum physical layer necessary for devices to interface. Single point-of-failure conditions could exist that are capable of disrupting network operation. For critical applications it may be necessary to employ fail-safe designs (e.g. dual networks, redundant cables and network interface circuits) to reduce the possibility of network failure.



Marine & Vessel Applications





Aimed at the requirements of a serial data communications network to inter-connect marine electronic equipment on vessels, Finecables has developed serial cable connectors and interconnects solutions.

By means of making full use of the NMEA 2000 standards and connection techniques, Finecables helps you streamline your cable connector systems, wire harness numbers as well as other connecting components, ending up with built-in or integrated connection solutions.

Whenever you build small boats, yachts, fishing boats, or cruises, let us know, because we can help you solve your data communication needs and space limits, but more importantly, the competitive built-in or integrated connection solutions with 30~50% installation time and cost are available at Finecables.

As a professional connector manufacturer that is concerned with safe and enjoyable boating activities, Finecables continues to attempt bridging the gap between mutually exclusive activities that naturally exist in the world of products and people, and offer opportunities for improving equipment capabilities.



Micro Series



Mini Series



Accessories

About NMEA 2000 Network Cables

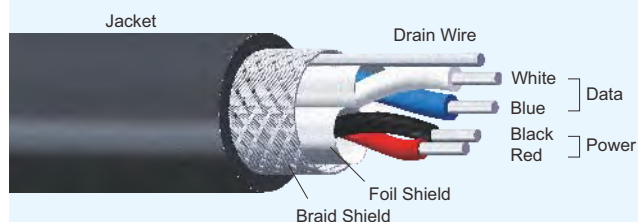
**Three types of cable may be used in an NMEA 2000 network:
Lite, Mid and Heavy.**

The selection of cable type for various portions (including the drop cable) of the network depends on the number of Network Loads attached, the length of the network cables, and the location of the specific cable in the network.

Meanwhile, this cable have the characteristics of the type based on the reference of the ODVA (Open Device Net Vendor Association) specification.



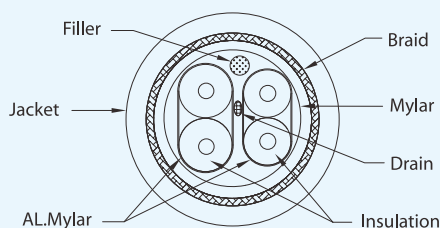
Cable Information



Micro

Recommendd Cables:

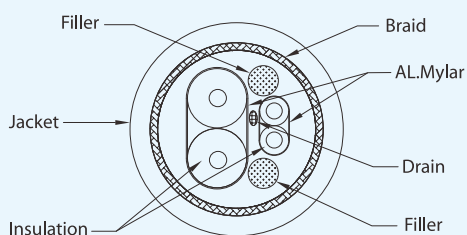
- (24#*1P+AL) + (22#*1P+AL) + Drain + Mylar + Braid
- (24#*1P+AL) + (22#*1P+AL) + Drain + AL + Braid
- (22#*1P+AL) + (18#*1P+AL) + Drain + AL + Braid



Mini

Recommendd Cables:

- (18#*1P+AL) + (15#*1P+AL) + Drain + Braid
- (18#*1P+AL) + (16#*1P+AL) + Drain + AL + Braid



* Customized cable specification can be available

Lite Cable

This cable has the electrical characteristics of the type used with industrial bus systems (e.g. DeviceNet™, Profibus™, and SDS). Lite cable used in NMEA 2000 applications shall has the following characteristics as specified in ODVA:

---Lite cable shall be five-wire constructed with two individually twisted-shielded pairs enclosed by an overall shield with a shield drain wire connecting all three shields. The shields may be foil or braid.

---The five wires shall be stranded-copper with each strand individually tinned to improve corrosion resistance.

---When the recommended wire colors shown in following Tables are not used the cable shall be permanently labeled to indicate the color code in use:

NMAE 2000 Lite Cable	Minimum Requirements Highlighted
Signal/Data Pair Specifications	Conductor Pair Min #24 AWG 5 Twists/foot (15 twists/meter)
Power Pair Specifications	Conductor Pair Min #22 AWG 5 Twists/foot (15 twists/meter)
Connector Compatibility	Only NMEA 2000 Approved Connector

Lite Cable Wire Color Codes		
Name	Pair	Color
Shield	Drain	Bare
NET-S	Power	Red
NET-C	Power	Black
NET-H	Signal	White
NET-L	Signal	Blue

Mid Cable

This cable has electrical characteristics of the type used with industrial bus systems (e.g., DeviceNet™, Profibus™, and 177 SDS). Mid Cable used in NMEA 2000 applications shall have the following characteristics as specified in ODVA:

---Mid cable shall be five-wire constructed with two individually twisted-shielded pairs enclosed by an overall shield with a shield drain wire connecting all three shields. The shields may be foil or braid.

---The five wires shall be stranded-copper with each strand individually tinned to improve corrosion resistance.

---When the recommended wire colors shown in following Tables are not used the cable shall be permanently labeled to indicate the color code in use:

NMAE 2000 Mid Cable	Minimum Requirements Highlighted
Data Pair Specifications	Conductor Pair Min #20 AWG 5 Twists/foot (15 twists/meter)
Power Pair Specifications	Conductor Pair Min #18 AWG 5 Twists/foot (15 twists/meter)
Connector Compatibility	Only NMEA 2000 Approved Connector

Mid Cable Wire Color Codes		
Name	Pair	Color
Shield	Drain	Bare
NET-S	Power	Red
NET-C	Power	Black
NET-H	Signal	White
NET-L	Signal	Blue

Heavy Cable

This cable has the electrical characteristics of the type used with industrial bus systems (e.g. DeviceNet™, Profibus™, and SDS). Heavy Cable used in NMEA 2000 applications has the following characteristics as specified in ODVA:

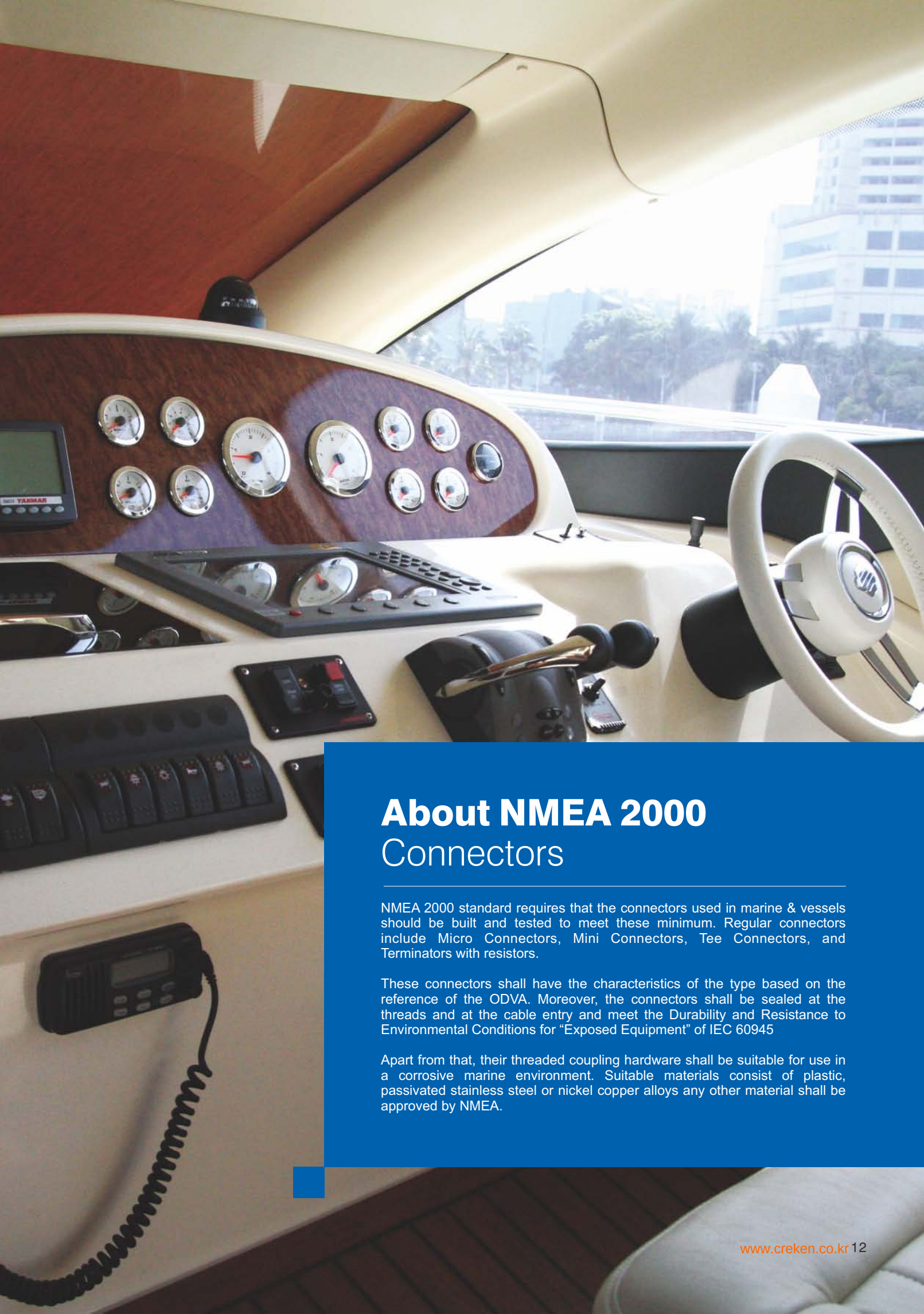
---Heavy cable shall be five-wire constructed with two individually twisted-shielded pairs enclosed by an overall shield with a shield drain wire connecting all three shields. The shields may be foil or braid.

---The five wires shall be stranded-copper with each strand individually tinned to improve corrosion resistance.

---When the recommended wire colors shown in following Tables are not used the cable shall be permanently labeled to indicate the color code in use:

NMAE 2000 Heavy Cable	Minimum Requirements Highlighted
Data Pair Specifications	Conductor Pair Min #18 AWG 3 Twists/foot (10 twists/meter)
Power Pair Specifications	Conductor Pair Min #15 AWG 3 Twists/foot (10 twists/meter)
Connector Compatibility	Only NMEA 2000 Approved Connector

Heavy Cable Wire Color Codes		
Name	Pair	Color
Shield	Drain	Bare
NET-S	Power	Red
NET-C	Power	Black
NET-H	Signal	White
NET-L	Signal	Blue



About NMEA 2000 Connectors

NMEA 2000 standard requires that the connectors used in marine & vessels should be built and tested to meet these minimum. Regular connectors include Micro Connectors, Mini Connectors, Tee Connectors, and Terminators with resistors.

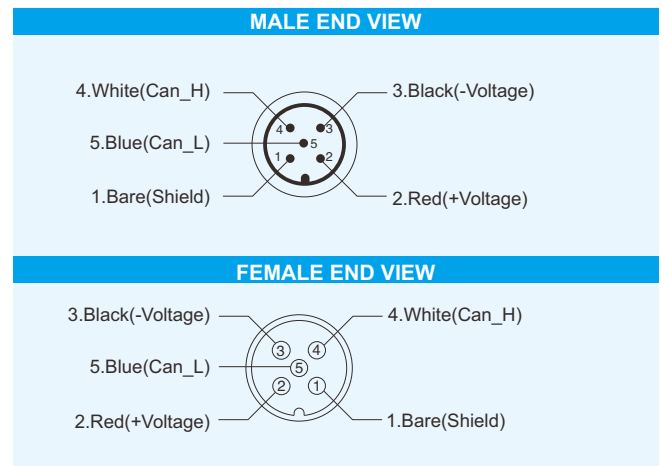
These connectors shall have the characteristics of the type based on the reference of the ODVA. Moreover, the connectors shall be sealed at the threads and at the cable entry and meet the Durability and Resistance to Environmental Conditions for "Exposed Equipment" of IEC 60945

Apart from that, their threaded coupling hardware shall be suitable for use in a corrosive marine environment. Suitable materials consist of plastic, passivated stainless steel or nickel copper alloys any other material shall be approved by NMEA.

Micro Connector

NMEA 2000 Micro (Micro-C) Connectors are always used with Lite and Mid cable.

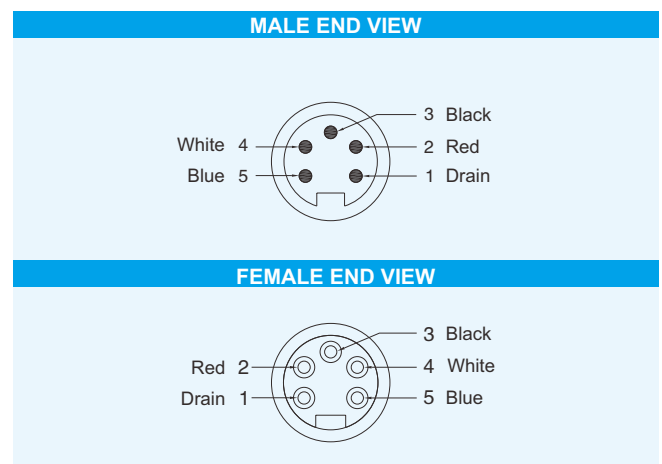
- Male Micro Connector: 5 pin style contacts with M12 x 1.0mm male (outside) connection thread. Rotation required. To mate with coupling female socket.
- Female Micro Connector: 5 pin style female socket contacts with M12 X 1.0 mm female (inside) connection thread. Rotation required. To mate with coupling male plug.
- Below specifies Connector pin-out numbers and wire color designations for the "Micro-C" connectors.



Mini Connector

NMEA 2000 Mini (Mini-C) Connectors are always used with Mid and Heavy cable.

- Male Mini Connector: 5 pin style contacts with 7/8" male (outside) connection thread. Rotation required. To mate with coupling female socket.
- Female Mini Connector: 5 pin style female contacts with 7/8" (inside) connection thread. Rotation required. To mate with coupling male plug.
- Below specifies Connector pin-out numbers and wire color designations for the "Mini-C" connectors.



Tee Connectors

Network "Tee" connectors shall have all five wires from each connector wired in parallel.

Terminator With Resistors

Connectors used to mount termination resistors shall have the termination resistor connected between 262 NET-H and NET-L, no connections are allowed to the other three terminals. When used in exposed 263 locations the termination resistor connections shall meet the Durability and Resistance to Environmental 264 Conditions for "Exposed Equipment" of Section 8, including IEC 60945(4th Edition) Section 8, 265 including Section 8.8 (Rain).

T-Connectors at Finecables



Terminator With Resistor

Connectors used to mount termination resistors have the termination resistor connected between NET-H and NET-L, no connections are allowed to the other three terminals. When used in exposed locations, the termination resistor connections meet the Durability and Resistance to Environmental Conditions for "Exposed Equipment".

Micro-Male



Micro-Female



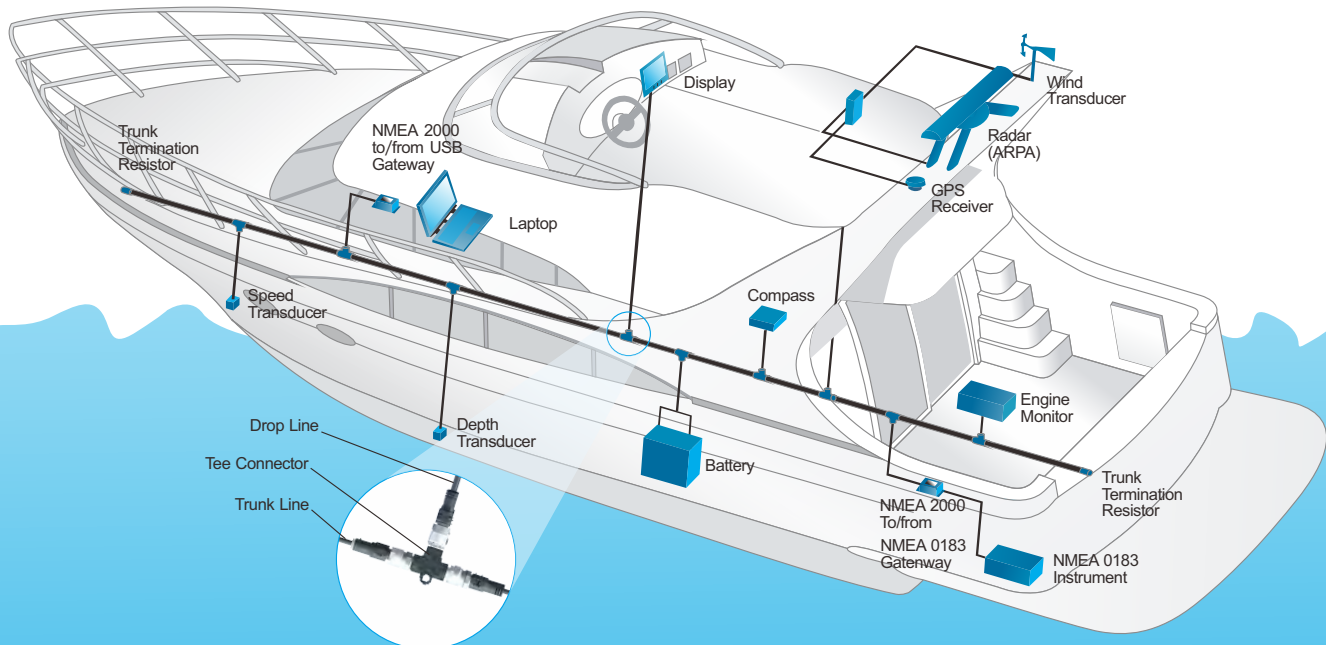
Mini-Male/Female



About Micro Mid and Mini NMEA 2000 Network Cable Systems

NMEA 2000 cabling systems include three types of connectors: Micro, Mid and Mini series connectors. Generally speaking, the Micro/Mid cable system is used for smaller equipment networks requiring no more than 4A rated currents, while Mini cable system is used for larger networks requiring no more than 8A but over 4A rated currents.

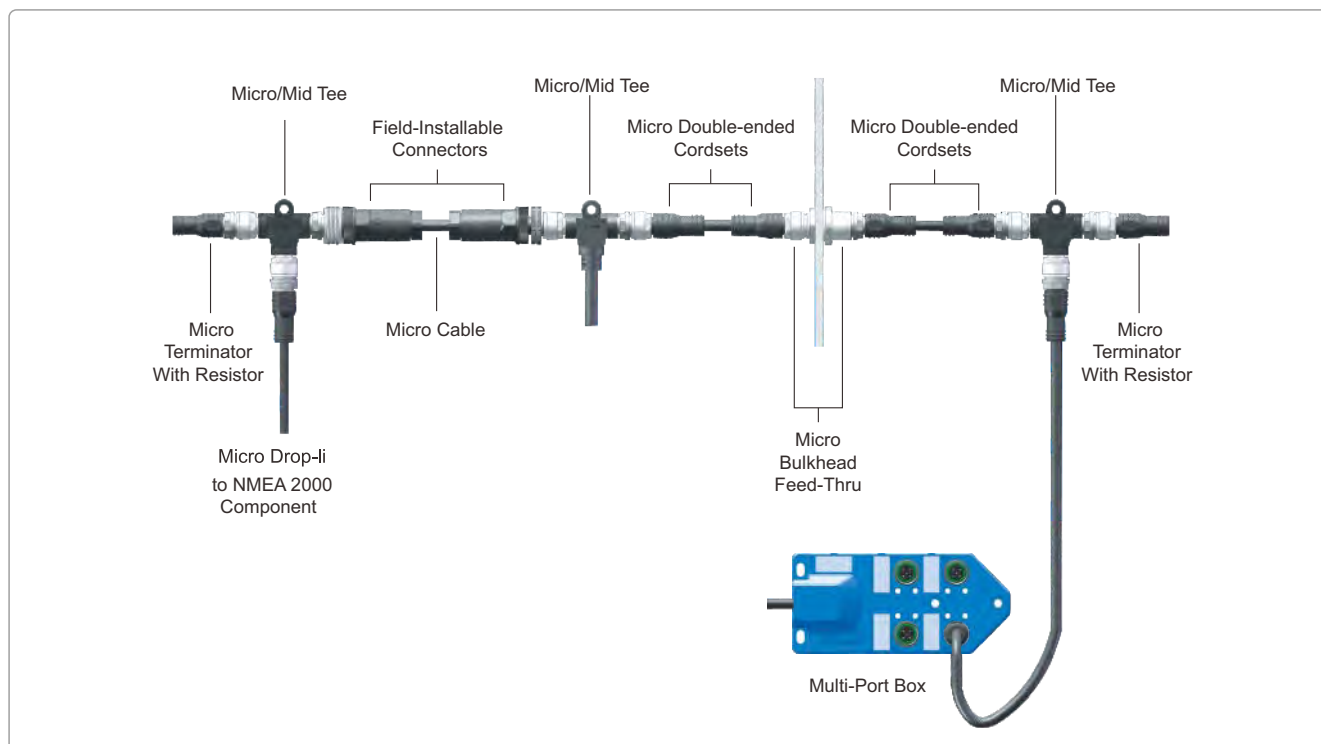
In other words, at Finecables, Micro/Mid connectors refers to M12 series, while, Mid connectors refers to 7/8" series.



This illustration is for concept only and should not be used for planning or engineering purposes.

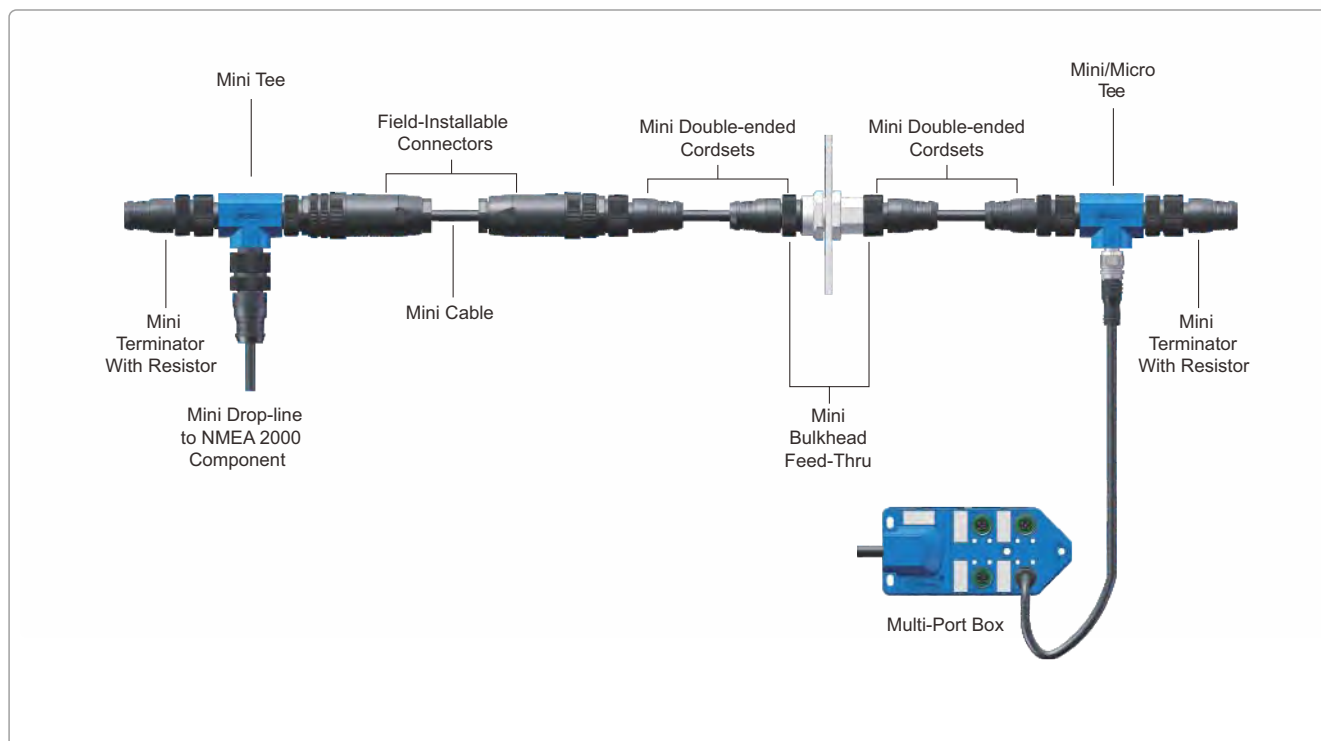
Micro/Mid NMEA 2000 Network Example

(Rated Current: 4A)



Mini NMEA 2000 Network Example

(Rated Current: 8A)

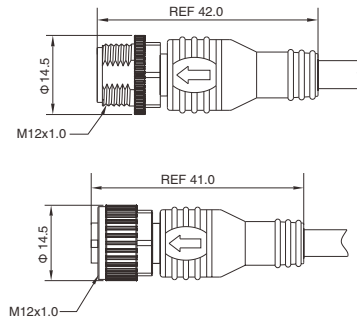


Micro Double-Ended Cordsets (Male-Female)

■ Micro male connector + light cable + Micro female connector

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MA12-MF-AHD05STXXXXX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-40°C ~ +80°C(fixed installation) -20°C ~ +80°C(flexible installation)
Connector insert:	TPU; PA
Connector overmold:	TPU
Coupling nut/screw:	Zinc alloy with nickel plated
Seal / O-ring:	FKM

Connector contacts:	Brass with gold plated
Insulation resistance:	≥ 100M Ω
Contact resistance :	≤ 5m Ω
Shielding:	Unavailable
IP rating:	IP67, IP69K in locked condition

■ Electrical data & Mechanical data

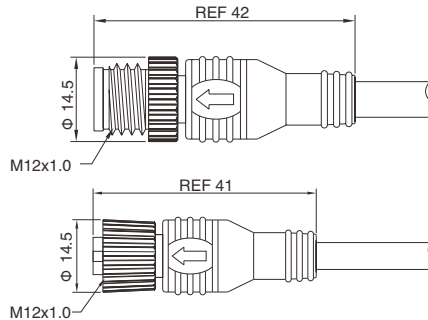
Contacts	Available Coding		Rated current	Voltage		Cable ending & length
	A(Male)	A(Female)		A/C	D/C	
03 pins			4A	250V	250V	Customized cable ending and length
04 pins			4A	250V	250V	
05 pins			4A	60V	60V	
08 pins			2A	30V	30V	
12 pins			1.5A	30V	30V	
17 pins			1.5A	30V	30V	17pin with different overmold from above other pins.

Micro Double-ended Cordsets (Male-Female Plastic Screw/Nut)

■ Micro male connector + light cable + Micro female connector

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MA12-MF-AP05STXXXXX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-40°C ~ +80°C(fixed installation) -20°C ~ +80°C(flexible installation)
Connector insert:	TPU; PA
Connector overmold:	TPU
Coupling nut:	PA+GF
Seal / O-ring:	FKM

Connector contacts:	Brass with gold plated
Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

■ Electrical data & Mechanical data

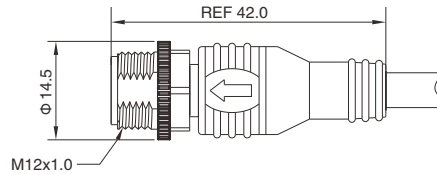
Contacts	Available Coding		Rated current	Voltage		Cable ending & length
	A(Male)	A(Female)		A/C	D/C	
03 pins			4A	250V	250V	Customized cable ending and length
04 pins			4A	250V	250V	
05 pins			4A	60V	60V	
08 pins			2A	30V	30V	
12 pins			1.5A	30V	30V	
17 pins			1.5A	30V	30V	17pin with different overmold from above other pins.

Micro Drop Line

■ Micro male connector + light cable

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MA12MAHD05STXXXXXX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-40°C ~ +80°C(fixed installation) -20°C ~ +80°C(flexible installation)
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector overmold:	TPU
Coupling nut/screw:	Zinc alloy with nickel plated

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP67, IP69K in locked condition

■ Electrical data & Mechanical data

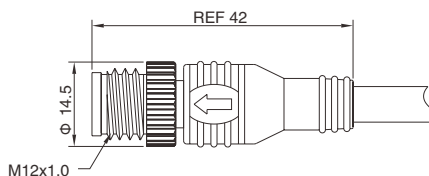
Contacts	Available Coding A Coding	Rated current	Voltage		Cable ending & length
			A/C	D/C	
03 pins		4A	250V	250V	Customized cable ending and length
04 pins		4A	250V	250V	
05 pins		4A	60V	60V	
08 pins		2A	30V	30V	
12 pins		1.5A	30V	30V	
17 pins		1.5A	30V	30V	17pin with different overmold from above other pins.

Micro Drop Line (Plastic Screw)

■ Micro male connector + light cable

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Straight
- Part No.: MA12MAP05STXXXXXX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-40°C ~ +80°C(fixed installation) -20°C ~ +80°C(flexible installation)
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector overmold:	TPU
Coupling/screw:	PA+GF

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

■ Electrical data & Mechanical data

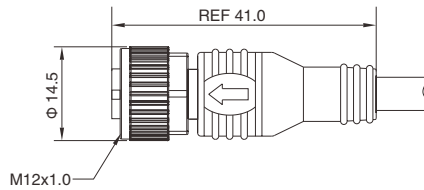
Contacts	Available Coding	Rated current	Voltage		Cable ending & length
	A Coding		A/C	D/C	
03 pins		4A	250V	250V	Customized cable ending and length
04 pins		4A	250V	250V	
05 pins		4A	60V	60V	
08 pins		2A	30V	30V	
12 pins		1.5A	30V	30V	
17 pins		1.5A	30V	30V	17pin with different overmold from above other pins.

Micro Drop Line

■ Micro female connector + light cable

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MA12FAHD05STXXXXXX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-40°C ~ +80°C(fixed installation) -20°C ~ +80°C(flexible installation)
Connector insert:	TPU; PA
Connector overmold:	TPU
Coupling nut/screw:	Zinc alloy with nickel plated
Seal / O-ring:	FKM

Connector contacts:	Brass with gold plated
Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP67, IP69K in locked condition

■ Electrical data & Mechanical data

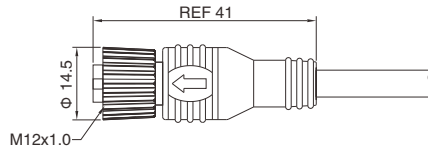
Contacts	Available Coding A Coding	Rated current	Voltage		Cable ending & length
			A/C	D/C	
03 pins		4A	250V	250V	Customized cable ending and length
04 pins		4A	250V	250V	
05 pins		4A	60V	60V	
08 pins		2A	30V	30V	
12 pins		1.5A	30V	30V	
17 pins		1.5A	30V	30V	17pin with different overmold from above other pins.

Micro Drop Line (Plastic Nut)

■ Micro female connector + light cable

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Straight
- Part No.: MA12FAP05STXXXXXX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-40°C ~ +80°C(fixed installation) -20°C ~ +80°C(flexible installation)
Connector insert:	TPU; PA
Connector overmold:	TPU
Coupling nut:	PA+GF
Seal / O-ring:	FKM

Connector contacts:	Brass with gold plated
Insulation resistance:	≥ 100M Ω
Contact resistance :	≤ 5m Ω
Shielding:	Unavailable
IP rating:	IP67 in locked condition

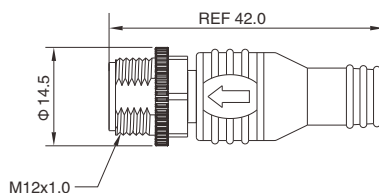
■ Electrical data & Mechanical data

Contacts	Available Coding	Rated current	Voltage		Cable ending & length
	A Coding		A/C	D/C	
03 pins		4A	250V	250V	Customized cable ending and length
04 pins		4A	250V	250V	
05 pins		4A	60V	60V	
08 pins		2A	30V	30V	
12 pins		1.5A	30V	30V	
17 pins		1.5A	30V	30V	17pin with different overmold from above other pins.

Micro Male Terminator

■ Micro male connector, with 120Ω resistor

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MA12MAHD05ST-T



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25℃ ~ + 90℃
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector screw:	Zinc alloy with nickel plated
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

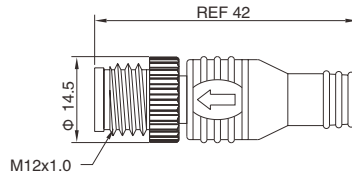
■ Electrical data & Mechanical data

Contacts	Available Coding A Coding	Rated current	Voltage	
			A/C	D/C
03 pins		4A	250V	250V
04 pins		4A	250V	250V
05 pins		4A	60V	60V
08 pins		2A	30V	30V
12 pins		1.5A	30V	30V
17 pins		1.5A	30V	30V

Micro Male Terminator (Plastic Screw)

■ Micro male connector, with 120Ω resistor

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Straight
- Part No.: MA12MAP05ST-T



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25℃~ + 90℃
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector screw:	PA+GF
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

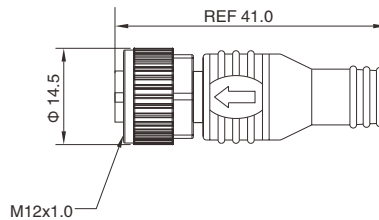
■ Electrical data & Mechanical data

Contacts	Available Coding	Rated current	Voltage	
	A Coding		A/C	D/C
03 pins		4A	250V	250V
04 pins		4A	250V	250V
05 pins		4A	60V	60V
08 pins		2A	30V	30V
12 pins		1.5A	30V	30V
17 pins		1.5A	30V	30V

Micro Female Terminator

■ Micro female connector, with 120Ω resistor

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MA12FAHD05ST-T



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25℃ ~ + 90℃
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw:	Zinc alloy with nickel plated
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

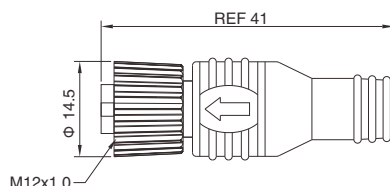
■ Electrical data & Mechanical data

Contacts	Available Coding A Coding	Rated current	Voltage	
			A/C	D/C
03 pins		4A	250V	250V
04 pins		4A	250V	250V
05 pins		4A	60V	60V
08 pins		2A	30V	30V
12 pins		2A	30V	30V
17 pins		1.5A	30V	30V

Micro Female Terminator (Plastic Nut)

■ Micro female connector, with 120Ω resistor

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Straight
- Part No.: MA12FAP05ST-T



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25°C ~ + 90°C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector nut:	PA+GF
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100M Ω
Contact resistance:	≤ 5m Ω
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

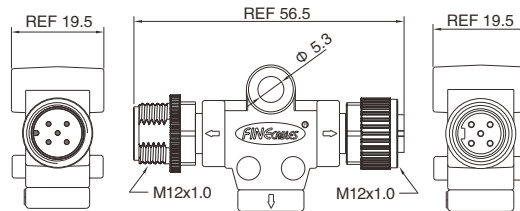
■ Electrical data & Mechanical data

Contacts	Available Coding	Rated current	Voltage	
	A Coding		A/C	D/C
03 pins		4A	250V	250V
04 pins		4A	250V	250V
05 pins		4A	60V	60V
08 pins		2A	30V	30V
12 pins		2A	30V	30V
17 pins		1.5A	30V	30V

Micro I-Adapter

■ Micro male to Micro female

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: I type
- Part No.: MI-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20°C ~ + 80°C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw/nut:	Zinc alloy with nickel plated
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

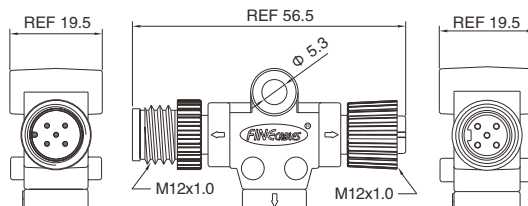
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro I-Adapter (Plastic Screw/Nut)

■ Micro male to Micro female

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: I type
- Part No.: MIP-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw/nut:	PA+GF
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

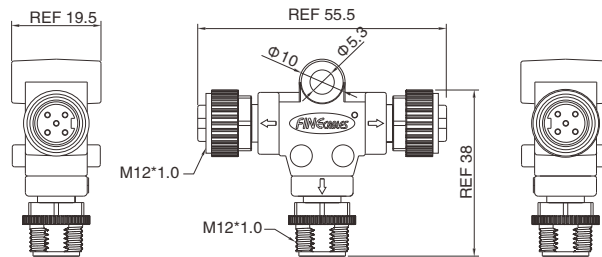
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro Tee Adapter

■ Micro male + Micro female to Micro female

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: T type
- Part No.: MT-A05



■ General information

Ambient temperature:	-20℃ ~ + 80 ℃
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw/nut:	Zinc alloy with nickel plated
Overmold:	TPU
O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

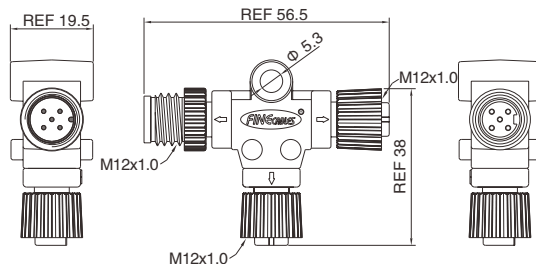
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro Tee Adapter (Plastic Screw/Nut)

■ Micro male + Micro female to Micro female

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: T type
- Part No.:MTP-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20 °C ~ + 80°C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw/nut:	PA+GF
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

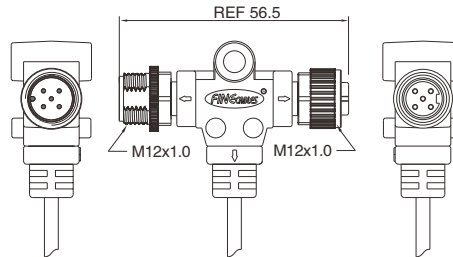
Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro Tee Cable

■ M12 T-splitter, male-female, molded cable

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: T type
- Part No.:MTC-MFAHD05-XX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20℃ ~ + 80℃
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector nut/screw:	Zinc alloy with nickel plated
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

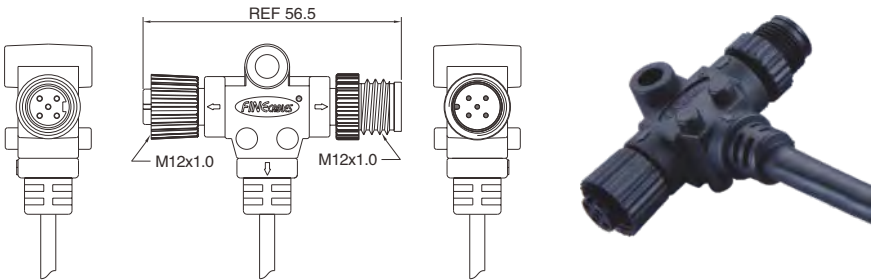
Contacts	Available Coding		Rated current	Voltage		Cable ending & length
	A(Male)	A(Female)		A/C	D/C	
03 pins			4A	250V	250V	Customized cable ending and length
04 pins			4A	250V	250V	
05 pins			4A	60V	60V	
08 pins			2A	30V	30V	

Micro Tee Cable (Plastic Screw/Nut)

■ M12 T-splitter, male-female, molded cable

- Connector series: M12
- Gender: Female & Male
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: T type
- Part No.: MTC-MFAP05-XX

X refers to cable specification



■ General information

Standard:	IEC 61076-2-101	Insulation resistance:	≥ 100MΩ
Ambient temperature:	-20℃~ + 80℃	Contact resistance:	≤ 5mΩ
Connector insert:	TPU; PA	Shielding:	Unavailable
Connector contacts:	Brass with gold plated	IP rating:	IP 67 in locked condition
Connector screw/nut:	PA+GF		
Connector overmold:	TPU		
Seal/O-ring:	FKM		

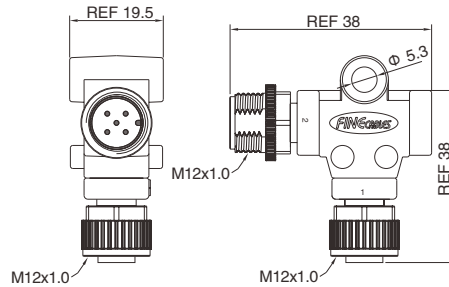
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage		Cable ending & length
	A(Male)	A(Female)		A/C	D/C	
03 pins			4A	250V	250V	Customized cable ending and length
04 pins			4A	250V	250V	
05 pins			4A	60V	60V	
08 pins			2A	30V	30V	

Micro L-Adapter

■ Micro male to Micro female

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: L type
- Part No.: ML-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20°C ~ + 80°C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector nut/screw:	Zinc alloy with nickel plated
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	$\geq 100\text{M}\Omega$
Contact resistance:	$\leq 5\text{m}\Omega$
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

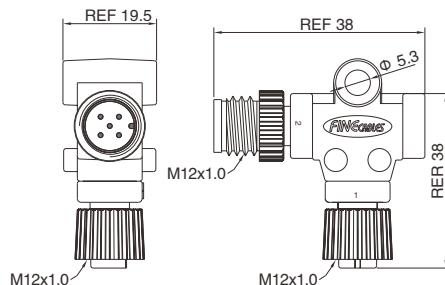
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro L-Adapter (Plastic Screw/Nut)

■ Micro male to Micro female

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: L type
- Part No.:MLP-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20 °C ~ + 80°C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw/nut:	PA+GF
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

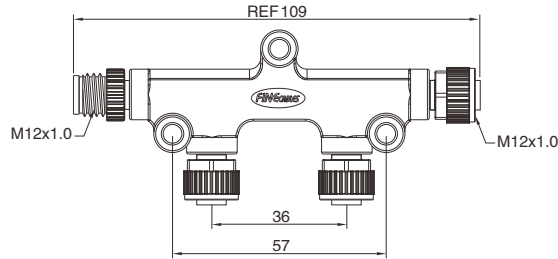
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro 4T-Adapter

■ Micro male + Micro female to Micro female (x2)

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: T type
- Part No.: M4T-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20℃ ~ + 80℃
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector nut/screw:	Zinc alloy with nickel plated
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

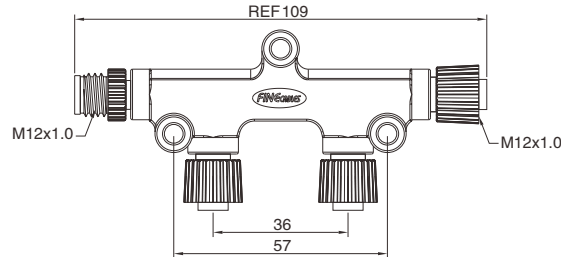
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro 4T-Adapter (Plastic Screw/Nut)

■ Micro male + Micro female to Micro female (x2)

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: T type
- Part No.: M4TP-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw/nut:	PA+GF
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

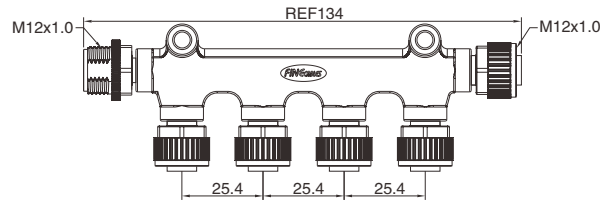
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro 6T-Adapter

■ Micro male + Micro female to Micro female (x4)

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: T type
- Part No.:M6T-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20℃ ~ + 80℃
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector nut/screw:	Zinc alloy with nickel plated
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

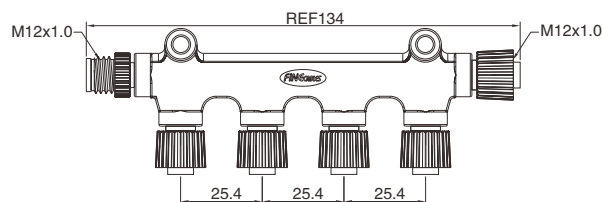
■ Electrical data & Mechanical data

Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro 6T-Adapter (Plastic Screw/Nut)

■ Micro male + Micro female to Micro female (x4)

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: T type
- Part No.:M6TP-A05



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	TPU; PA
Connector contacts:	Brass with gold plated
Connector screw/nut:	PA+GF
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

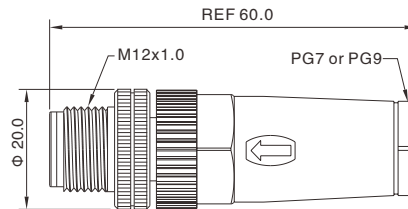
Contacts	Available Coding		Rated current	Voltage	
	A(Male)	A(Female)		A/C	D/C
03 pins			4A	250V	250V
04 pins			4A	250V	250V
05 pins			4A	60V	60V
08 pins			2A	30V	30V

Micro Field Installable Connector

■ Micro field installable connector (male, straight)

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MB12MWAFF05ST-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90°C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	Aluminum Alloy anodized
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

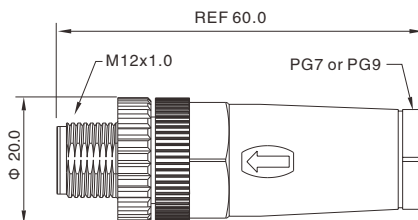
Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Field Installable Connector (Plastic Screw)

■ Micro field installable connector (male, straight)

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Straight
- Part No.: MB12MWAFP05ST-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ +90 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

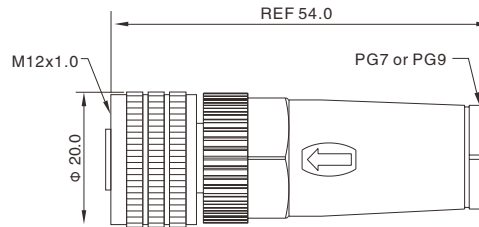
Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Field Installable Connector

■ Micro field installable connector (female, straight)

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MB12FWAFF05ST-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	Aluminum Alloy anodized
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

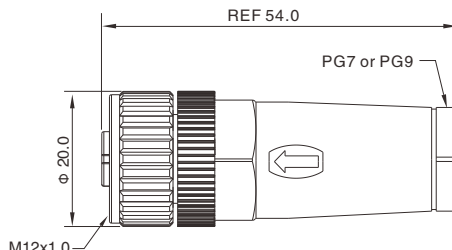
Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Field Installable Connector (Plastic Nut)

■ Micro field installable connector (female, straight)

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Straight
- Part No.: MB12FWAFP05ST-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

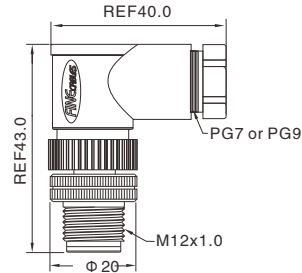
Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Field Installable Connector

■ Micro field installable connector (male, angled)

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: MB12MWAFF05RA-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	Aluminum Alloy anodized
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

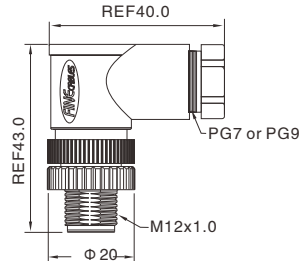
Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Field Installable Connector (Plastic Screw)

■ Micro field installable connector (male, angled)

- Connector series: M12
- Gender: Male
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Right angled
- Part No.: MB12MWAFP05RA-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

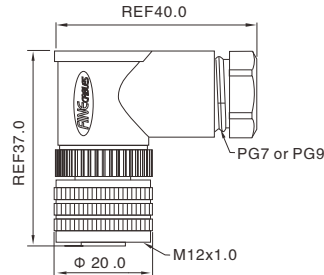
Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Field Installable Connector

■ Micro field installable connector (female, angled)

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: MB12FWAFF05RA-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	Aluminum Alloy anodized
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

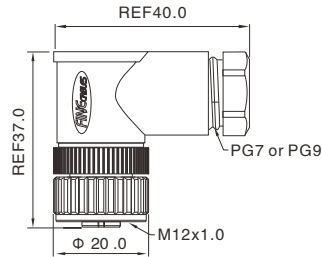
Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Field Installable Connector (Plastic Nut)

■ Micro field installable connector (female, angled)

- Connector series: M12
- Gender: Female
- Coding: A
- Locking type: Plastic fix screw
- Mounting type: Right angled
- Part No.: MB12FWAFP05RA-X

X refers to cable gland size: 3=PG9
4=PG7



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	PG7:4~6mm / PG9:6~8mm
IP rating:	IP 67 in locked condition

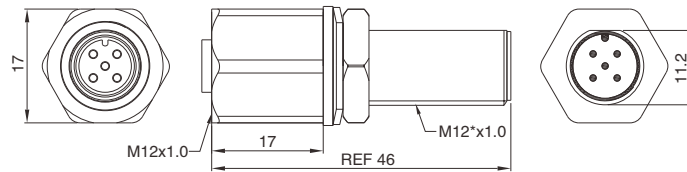
■ Electrical data & Mechanical data

Contacts	Available Coding	Contacts termination	Rated current	Voltage		Cable ending & length
	A Coding			A/C	D/C	
03 pins		Screw joint	4A	250V	250V	Customized cable ending and length
04 pins		Screw joint	4A	250V	250V	
05 pins		Screw joint	4A	60V	60V	
08 pins		Screw joint	2A	30V	30V	

Micro Bulkhead Connector (Double-ended)

■ Micro male to Micro female

- Connector series: M12
- Gender: Male & Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MT-008



■ General information

Standard:	IEC 61076-2-101
Ambient temperature:	-25 °C ~ + 90 °C
Connector insert:	PA+GF / TPU
Connector contacts:	Brass with gold plated
Connector nut/screw:	Brass with nickel plated
Seal / O-ring:	Epoxy resin/FKM

Insulation resistance:	≥ 100MΩ
Contact resistance:	≤ 5mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

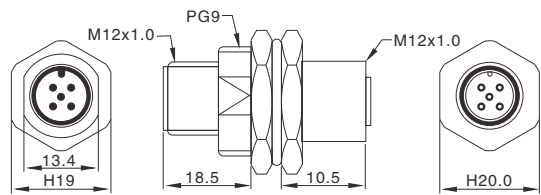
■ Electrical data & Mechanical data

Contacts	Available Coding		Part No.	Rated current	Voltage	
	A(Male)	A(Female)			A/C	D/C
04 pins			MT-007	4A	250V	250V
05 pins			MT-008	4A	60V	60V

Micro Bulkhead Connector (Double-ended)

■ Micro male to Micro female

- Connector series: M12
- Gender: Male&Female
- Coding: A
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MT-010



■ General information

Standard:	IEC 61076-2-101	Insulation resistance:	≥ 100MΩ
Ambient temperature:	-25 °C ~ + 90 °C	Contact resistance:	≤ 5mΩ
Connector insert:	PA+GF / TPU	Shielding:	Unavailable
Connector contacts:	Brass with gold plated	IP rating:	IP67 in locked condition
Connector nut/screw:	Brass with nickel plated		
Seal / O-ring:	Epoxy resin/FKM		

■ Electrical data & Mechanical data

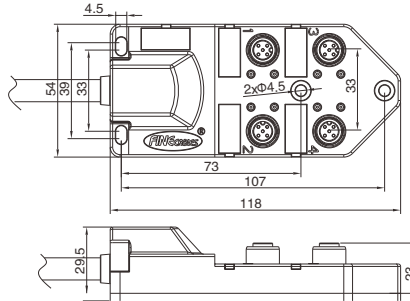
Contacts	Available Coding		Part No.	Rated current	Voltage	
	A(Male)	A(Female)			A/C	D/C
04 pins			MT-009	4A	250V	250V
05 pins			MT-010	4A	60V	60V

Multi-port Micro Box

■ Junction Box, 4 ports, M12 termination, molded cable

- Connector series: Junction Box
- Termination: M12
- Locking type: Fix screw
- Coding type: A-coding
- Part No.: JB4M12F05L-XX (with LED)
JB4M12F05-XX (without LED)

X refers to cable length

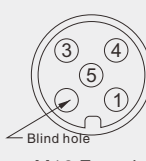
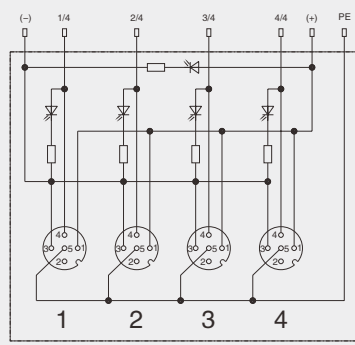
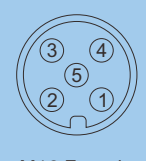
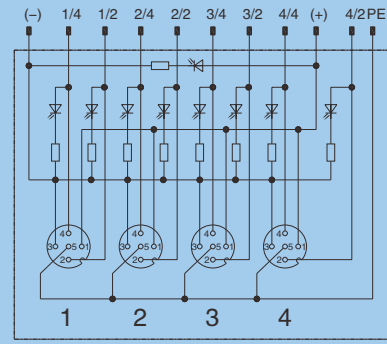


■ General information

Ambient temperature:	-40℃ ~ +80℃(fixed installation) -25℃ ~ +80℃(flexible installation)
Connector insert:	TPU/PA
Connector contacts:	Brass with gold plated
Material of body:	PBT
Coupling nut/screw:	Brass with nickel plated
Body color:	Blue
Seal:	FKM

Contact resistance :	≤ 3mΩ
Rated voltage with/without LED:	10~30V/120V
Rated current:	1A per signal, 3A total
LED color:	Optional
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

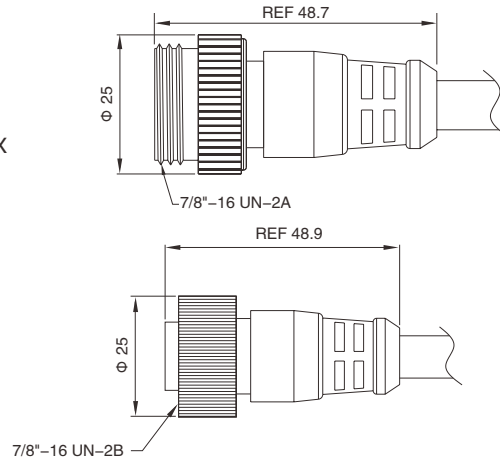
Contacts		Circuit diagram	Cable Specification
04Pins	 M12 Female		3Cx0.75mm ² (18AWG)+ 4Cx0.34mm ² (22AWG) PUR / PVC jacket by customized
05Pins	 M12 Female		3Cx0.75mm ² (18AWG)+ 8Cx0.34mm ² (22AWG) PUR / PVC jacket by customized

Mini Double-ended Cordsets (Male-Female)

■ Mini male connector + heavy cable + Mini female connector

- Connector series: Mini-change(7/8")
- Gender: Male & Female
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MINI-C05-MF-ST-M-XXXXXX

X refers to cable specification



■ General information

Ambient temperature:	-40℃ ~ +80℃(fixed installation) -20℃ ~ +80℃(flexible installation)
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector overmold:	TPU
Coupling nut/screw:	Aluminium anodized black
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

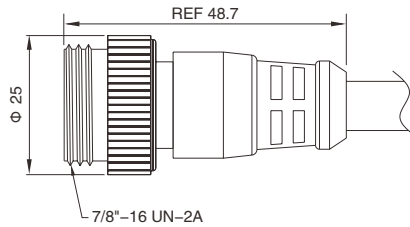
Contacts		Rated current	Voltage		Cable ending & length
			A/C	D/C	
03 pins		13A	300V	300V	Customized cable ending and length
04 pins		13A	300V	300V	
05 pins		8A	300V	300V	
3+7 pins		4A (signal 7Pins) 8A (power 3Pins)	250V	250V	
16 pins		4A	250V	250V	

Mini Drop Line

■ Mini male connector + heavy cable

- Connector series: Mini-change(7/8")
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MINI-C05MST-M-XXXXXX

X refers to cable specification

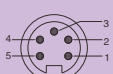


■ General information

Ambient temperature:	-40℃ ~ +80℃(fixed installation) -20℃ ~ +80℃(flexible installation)
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector overmold:	TPU
Coupling nut/screw:	Aluminium anodized black

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

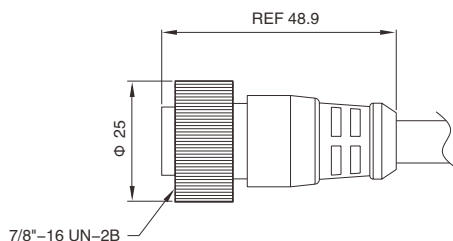
Contacts		Rated current	Voltage		Cable ending & length
			A/C	D/C	
03 pins		13A	300V	300V	Customized cable ending and length
04 pins		13A	300V	300V	
05 pins		8A	300V	300V	
3+7 pins		4A (signal 7Pins) 8A (power 3Pins)	250V	250V	
16 pins		4A	250V	250V	

Mini Drop Line

■ Mini female connector + heavy cable

- Connector series: Mini-change(7/8")
- Gender: Female
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MINI-C05FST-M-XXXXXX

X refers to cable specification



■ General information

Ambient temperature:	-40℃ ~ +80℃(fixed installation) -20℃ ~ +80℃(flexible installation)
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector overmold:	TPU
Coupling nut/screw:	Aluminium anodized black
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 M Ω
Contact resistance:	≤ 5 m Ω
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

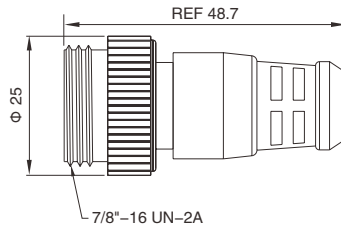
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage		Cable ending & length
			A/C	D/C	
03 pins		13A	300V	300V	Customized cable ending and length
04 pins		13A	300V	300V	
05 pins		8A	300V	300V	
3+7 pins		4A (signal 7Pins) 8A (power 3Pins)	250V	250V	
16 pins		4A	250V	250V	

Mini Male Terminator

■ Mini male connector, with 120Ω Resistor

- Connector series: Mini-change(7/8")
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MINI-C05MST-M-T



■ General information

Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector overmold:	TPU
Coupling nut/screw:	Aluminium anodized black

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

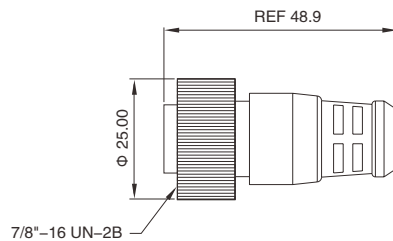
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage	
			A/C	D/C
03 pins		13A	300V	300V
04 pins		13A	300V	300V
05 pins		8A	300V	300V
16 pins		4A	250V	250V

Mini Female Terminator

■ Mini female connector, with 120Ω Resistor

- Connector series: Mini-change(7/8")
- Gender: Female
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MINI-C05FST-M-T



■ General information

Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector overmold:	TPU
Coupling nut/screw:	Aluminium anodized black
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

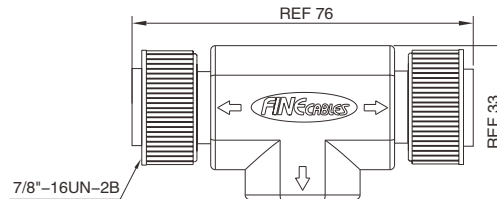
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage	
			A/C	D/C
03 pins		13A	300V	300V
04 pins		13A	300V	300V
05 pins		8A	300V	300V
16 pins		4A	250V	250V

Mini I-Adapter (Male-Female)

■ Mini male to Mini female

- Connector series: Mini-change(7/8")
- Gender: Male & Female
- Locking type: Fix screw
- Mounting type: I type
- Part No.: MT-069

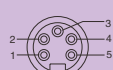


■ General information

Ambient temperature:	-25℃ ~ + 90 ℃
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector screw/nut:	Aluminium anodized black
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

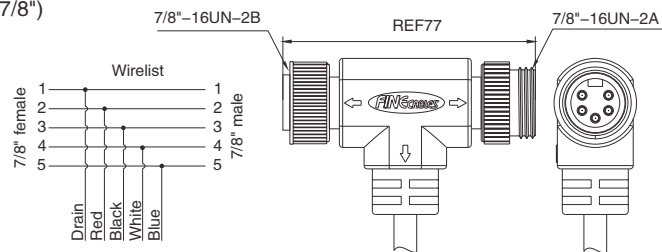
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage	
			A/C	D/C
03 pins MT-067		13A	300V	300V
04 pins MT-068		13A	300V	300V
05 pins MT-069		8A	300V	300V

Mini Tee Cable

■ Mini male + Mini female to heavy cable

- Connector series: Mini-change(7/8")
- Gender: Male & Female
- Locking type: Fix screw
- Mounting type: T type
- Part No.: MT-014



■ General information

Ambient temperature:	-20°C ~ + 80°C
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector screw/nut:	Aluminium anodized black
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

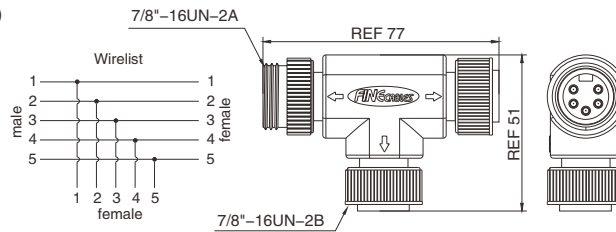
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage		Cable ending & length
			A/C	D/C	
05 pins	 Female	8A	300V	300V	Customized cable ending and length
	 Male				

Mini Tee Adapter

■ Mini male + Mini female to Mini female

- Connector series: Mini-change(7/8")
- Gender: Male & Female
- Locking type: Fix screw
- Mounting type: T type
- Part No.: MT-012

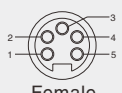
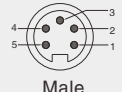


■ General information

Ambient temperature:	-25℃ ~ + 90℃
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector screw/nut:	Aluminium anodized black
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

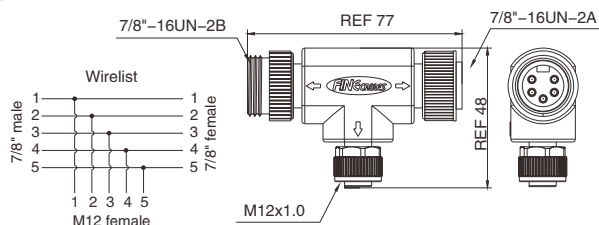
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage	
			A/C	D/C
05 pins	 Female	8A	300V	300V
	 Male			

Mini Tee Adapter

■ Mini male + Mini female to Micro female

- Connector series: Mini-change(7/8")&M12
- Gender: Male & Female
- Locking type: Fix screw
- Mounting type: T type
- Part No.: MT-013



■ General information

Ambient temperature:	-25 °C ~ + 90°C
Connector insert:	TPU/PA+GF
Connector contacts:	Brass with gold plating
Connector screw/nut:	Aluminium anodized black(7/8") Zinc alloy with nickel plated(M12)
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

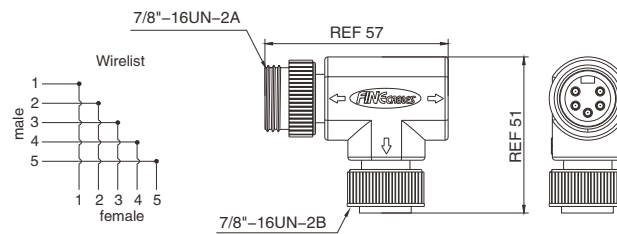
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage	
			A/C	D/C
05 pins	 7/8"female	4A	60V	60V
	 7/8"male			
	 M12 female			

Mini L-Adapter

■ Mini male to Mini female

- Connector series: Mini-change(7/8")
- Gender: Male & Female
- Locking type: Fix screw
- Mounting type: L type
- Part No.: ML-MINI05

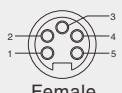
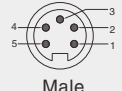


■ General information

Ambient temperature:	-25℃ ~ + 90℃
Connector insert:	TPU
Connector contacts:	Brass with gold plating
Connector screw/nut:	Aluminium anodized black
Connector overmold:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

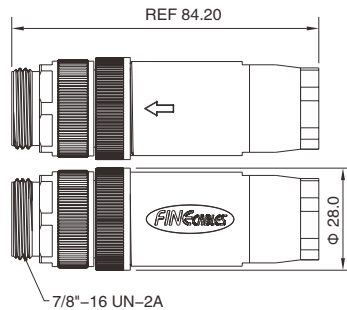
■ Electrical data & Mechanical data

Contacts		Rated current	Voltage	
			A/C	D/C
05 pins	 Female	8A	300V	300V
	 Male			

Mini Field Installable Connector

■ Mini Field Installable Connector (male, straight)

- Connector series: Mini-change(7/8")
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MINI-C05MST-SJF-A
MINI-C05MST-SJF-B



■ General information

Ambient temperature:	-25℃ ~ + 90℃
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector screw:	Aluminium anodized black
Connector body:	PA+GF

Insulation resistance:	≥ 100M Ω
Contact resistance :	≤ 5m Ω
Shielding:	Unavailable
Suitable cable Dia:	A: 6.0~8.0mm; B: 8.0~10.0mm
IP rating:	IP 67 in locked condition

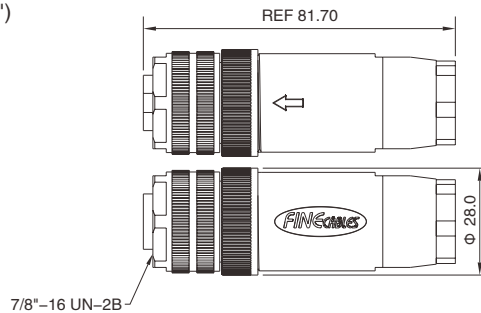
■ Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Cable ending & length
				A/C	D/C	
03 pins		Screw joint	13A	300V	300V	Customized cable ending and length
04 pins		Screw joint	13A	300V	300V	
05 pins		Screw joint	8A	300V	300V	

Mini Field Installable Connector

■ Mini Field Installable Connector (female, straight)

- Connector series: Mini-change(7/8")
- Gender: Female
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MINI-C05FST-SJF-A
MINI-C05FST-SJF-B

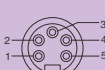


■ General information

Ambient temperature:	-25℃ ~ + 90℃
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut:	Aluminium anodized black
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	A: 6.0~8.0mm; B: 8.0~10.0mm
IP rating:	IP 67 in locked condition

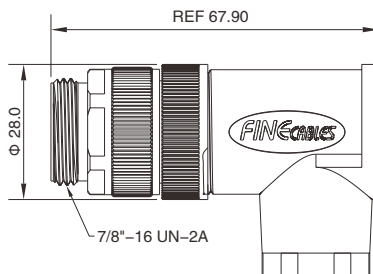
■ Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Cable ending & length
				A/C	D/C	
03 pins		Screw joint	13A	300V	300V	Customized cable ending and length
04 pins		Screw joint	13A	300V	300V	
05 pins		Screw joint	8A	300V	300V	

Mini Field Installable Connector

■ Mini Field Installable Connector (male, angled)

- Connector series: Mini-change(7/8")
- Gender: Male
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: MINI-C05MRA-SJF-A
MINI-C05MRA-SJF-B



■ General information

Ambient temperature:	-25°C ~ + 90°C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector screw:	Aluminium anodized black
Connector body:	PA+GF

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	A: 6.0~8.0mm; B: 8.0~10.0mm
IP rating:	IP 67 in locked condition

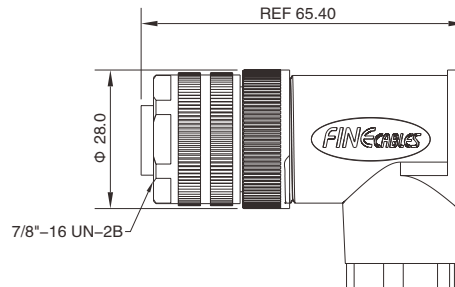
■ Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Cable ending & length
				A/C	D/C	
03 pins		Screw joint	13A	300V	300V	Customized cable ending and length
04 pins		Screw joint	13A	300V	300V	
05 pins		Screw joint	8A	300V	300V	

Mini Field Installable Connector

■ Mini Field Installable Connector (female, angled)

- Connector series: Mini-change(7/8")
- Gender: Female
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: MINI-C05FRA-SJF-A
MINI-C05FRA-SJF-B

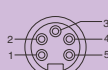


■ General information

Ambient temperature:	-25°C ~ + 90°C
Connector insert:	TPU
Connector contacts:	Brass with gold plated
Connector nut:	Aluminium anodized black
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Unavailable
Suitable cable Dia:	A: 6.0~8.0mm; B: 8.0~10.0mm
IP rating:	IP 67 in locked condition

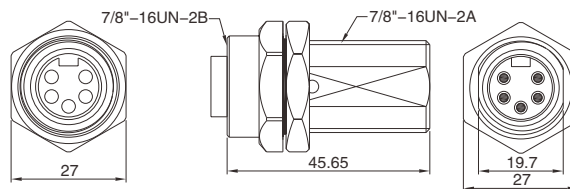
■ Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Cable ending & length
				A/C	D/C	
03 pins		Screw joint	13A	300V	300V	Customized cable ending and length
04 pins		Screw joint	13A	300V	300V	
05 pins		Screw joint	8A	300V	300V	

Mini Bulkhead Connector (Double-ended)

■ Mini male to Mini female

- Connector series: Mini-change(7/8")
- Gender: Male & Female
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MT-011



■ General information

Ambient temperature:	-25 °C ~ + 90°C
Connector insert:	PA+GF / TPU
Connector contacts:	Brass with gold plated
Coupling nut/screw:	Brass with nickel plated
Seal / O-ring:	Epoxy resin/FKM

Insulation resistance:	≥ 100 MΩ
Contact resistance:	≤ 5 mΩ
Shielding:	Unavailable
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

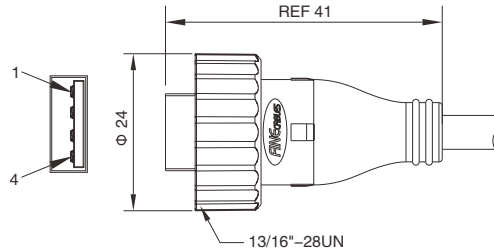
Contacts	Rated current	Voltage	
		A/C	D/C
03 pins MT-066  Female  Male	13A	300V	300V
04 pins MT-065  Female  Male	13A	300V	300V
05 pins MT-011  Female  Male	8A	300V	300V

Accessories

■ USB2.0 Male Molded Cable, Straight

- Connector series: USB 2.0
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: USB-WM04STMF-XXCB

X refers to cable specification



■ General information

Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	PBT
Connector contacts:	Brass with gold plated
Connector overmold:	TPU
Coupling nut/screw:	PA + GF
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP 67 in locked condition

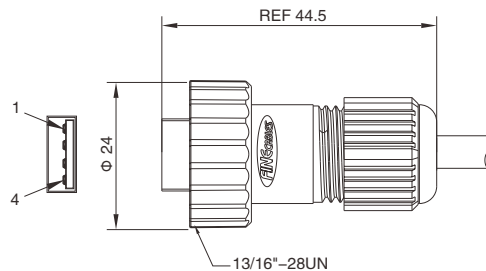
■ Electrical data & Mechanical data

Contacts	Rated current	Voltage		Cable jacket	Wire insulation	Cable ending & length
		A/C	D/C			
USB 2.0 A type male	1.5A	30V	30V	PVC	PVC	Customized cable ending and length

Accessories

■ USB2.0 Male Field Wirable Assembly, Straight

- Connector series: USB 2.0
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: USB-WM04STAF



■ General information

Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	PBT
Connector contacts:	Brass with gold plated
Connector body:	PA + GF
Coupling nut/screw:	PA + GF
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP 67 in locked condition

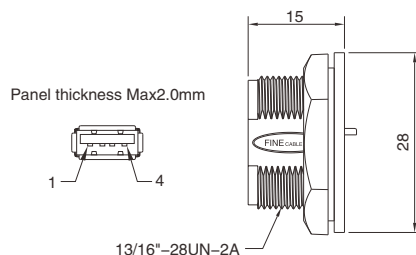
■ Electrical data & Mechanical data

Contacts	Rated current	Voltage		Cable jacket	Wire insulation	Cable ending & length
		A/C	D/C			
USB 2.0 A type male	1.5A	30V	30V	PVC	PVC	Customized cable ending and length

Accessories

■ USB2.0 Female Panel Mount, Solder, Front fastened

- Connector series: USB 2.0
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: USB-WF04STSP



■ General information

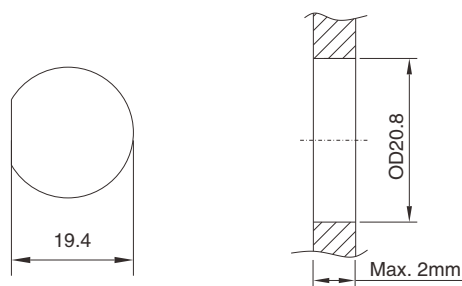
Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	PBT+GF
Connector contacts:	Phosphor bronze with gold plated
Connector body:	PA+GF
Coupling nut/screw:	PA+GF
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

Contacts	Contacts	Rated current	Voltage		Wire	Wire ending & length
			A/C	D/C		
USB2.0 A type female	Solder version	1.5A	30V	30V	PVC wire or customized	Customized wire ending and length

■ Panel Cut-out Dimensions:

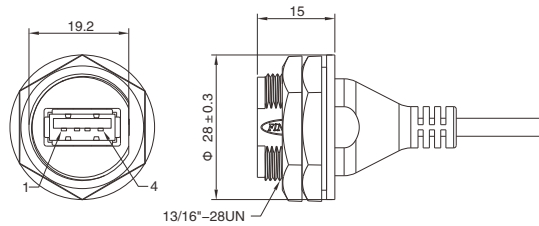


Accessories

■ USB2.0 Female Panel Mount+SR, Solder, Front fastened

- Connector series: USB 2.0
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: USB-WF04STSP-XXX

X refers to cable specification



■ General information

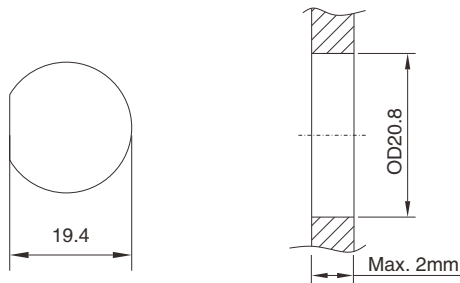
Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	PBT+GF
Connector contacts:	Phosphor bronze with gold plated
Connector body:	PA+GF
Coupling nut/screw:	PA+GF
SR over-molded:	TPU
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

Contacts	Contacts	Rated current	Voltage		Wire	Wire ending & length
			A/C	D/C		
USB2.0 A type female	Solder version	1.5A	30V	30V	PVC wire or customized	Customized wire ending and length

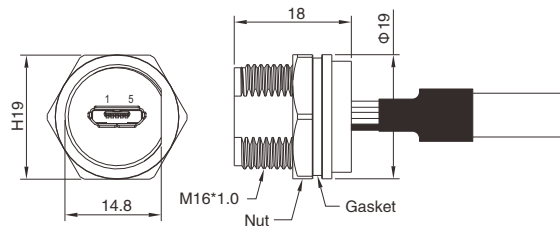
■ Panel Cut-out Dimensions:



Accessories

■ Micro-USB, Female Panel Mount, Solder, Front fastened

- Connector series: Micro-USB
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: MB-WF05STSP-Micro
 - suitable cable Dia: A: 3.5~4.5mm
 - B: 4.5~5.5mm



■ General information

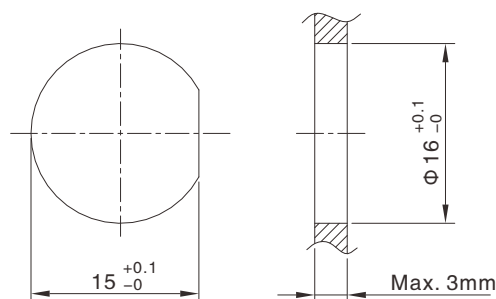
Ambient temperature:	-20 °C ~ +80 °C
Connector insert:	LCP+GF/PBT
Connector contacts:	Brass with gold plated
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	$\geq 100M\Omega$
Contact resistance:	$\leq 30 m\Omega$
Shielding:	Available
IP rating:	IP67 in locked condition

■ Electrical data & Mechanical data

Contacts	Contacts termination	Rated current	Voltage		Wire	Cable ending & length
			A/C	D/C		
Micro USB 5P B type female	Solder version	1A	30V	30V	PVC wire or customized	Customized cable ending and length

■ Panel Cut-out Dimensions:

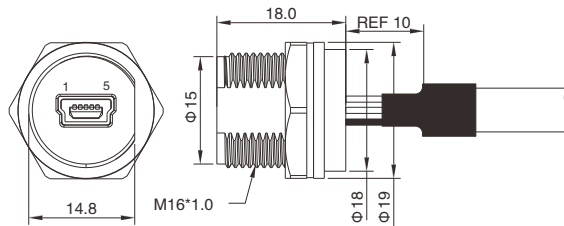


Accessories

■ Mini-USB, Female Panel Mount, Solder, Front fastened

- Connector series: Mini-USB
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: MB-WF05STSP-XXX

X refers to cable specification



■ General information

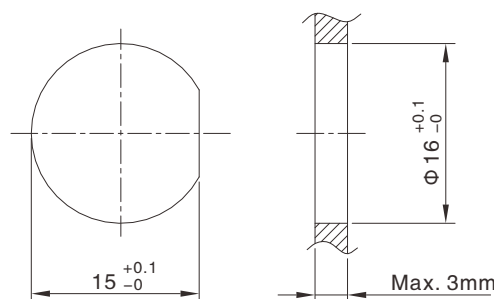
Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	PBT+GF
Connector contacts:	Phosphor bronze with gold plated
Connector body:	PA+GF
Coupling nut/screw:	PA+GF
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 50mΩ
Shielding:	Available
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

Contacts	Contacts	Rated current	Voltage		Wire	Wire ending & length
			A/C	D/C		
Mini USB 5P B Type Female	Solder version	1A	30V	30V	PVC wire or customized	Customized wire ending and length

■ Panel Cut-out Dimensions:

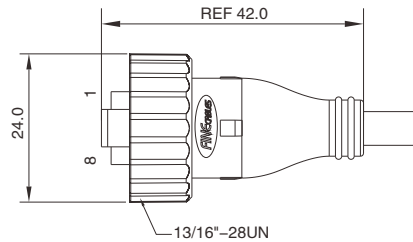


Accessories

■ RJ45 Male Molded Cable

- Connector series: RJ45
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: RJ45-WM08STMF-XXXX25

X refers to cable specification



■ General information

Ambient temperature:	-20 °C ~ + 60 °C
Connector insert:	PC
Connector contacts:	Copper alloy with gold plated
Connector overmold:	TPU
Coupling nut/screw:	PA + GF
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available or Unavailable
IP rating:	IP 67 in locked condition

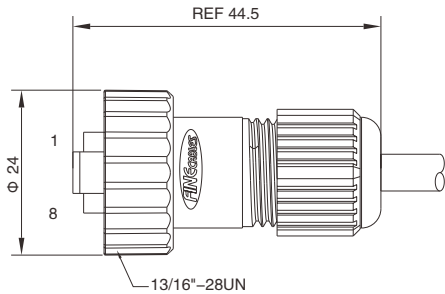
■ Electrical data & Mechanical data

Contacts	Rated current	Voltage		Wire gauge / size		Cable jacket	Wire insulation	Cable ending & length
		A/C	D/C	AWG	mm ²			
RJ45 8P8C male	1.5A	125V	125V	24AWG	0.25	PVC	PE	Customized cable ending and length

Accessories

■ RJ45 Male Field Wirable Assembly, Straight

- Connector series: RJ45
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: RJ45S-WM08STAF



■ General information

Ambient temperature:	-20 ℃ ~ + 60 ℃	Insulation resistance:	≥ 100MΩ
Connector insert:	PC	Contact resistance :	≤ 30mΩ
Connector contacts:	Copper alloy with gold plated	Shielding:	Available
Connector body:	PA + GF	IP rating:	IP 67 in locked condition
Coupling nut/screw:	PA + GF		
Seal/O-ring:	FKM		

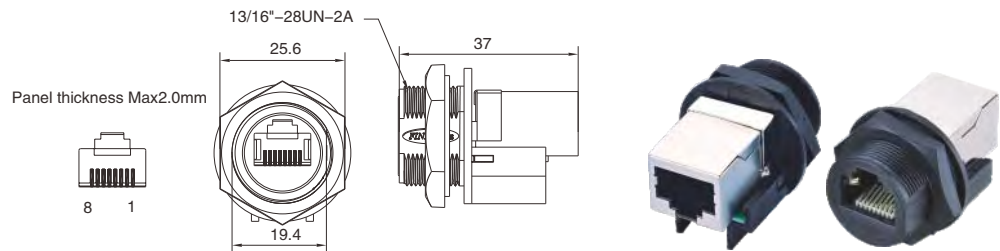
■ Electrical data & Mechanical data

Contacts	Rated current	Voltage		Wire gauge / size		Cable jacket	Wire insulation	Cable ending & length
		A/C	D/C	AWG	mm ²			
RJ45 8P 8C male	1.5A	125V	125V	24AWG	0.25	PVC	PE	Customized cable ending and length

Accessories

■ RJ45 Female Panel Mount, Front fastened

- Connector series: RJ45
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: RJ45S-WF08STSP



■ General information

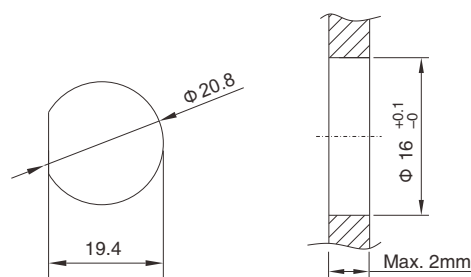
Ambient temperature:	-20 °C ~ + 80 °C
Connector insert:	PBT+GF
Connector contacts:	Phosphor bronze with gold plated
Coupling nut/screw:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	$\geq 100\text{M}\Omega$
Contact resistance :	$\leq 30\text{m}\Omega$
Shielding:	Available
IP rating:	IP 67 in locked condition

■ Electrical data & Mechanical data

Contacts	Rated current	Voltage	
		A/C	D/C
RJ45 8P8C female	1.5A	125V	125V

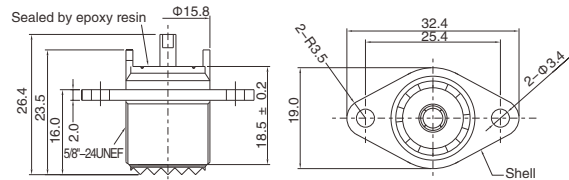
■ Panel Cut-out Dimensions:



Accessories

Waterproof UHF Connector

- Connector series: UHF
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: UHF



General information

Ambient temperature:	-30 °C ~ + 85 °C
Connector insert:	PTFE
Connector contacts:	Brass with nickel plated
Coupling nut/screw:	PA+GF
Seal:	Epoxy resin

Insulation resistance:	≥ 10MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Available
IP rating:	IP 67 in locked condition

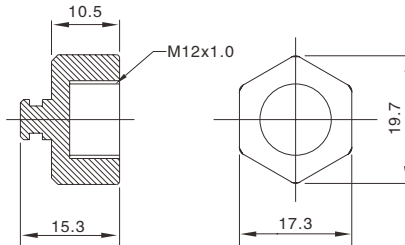
Electrical data & Mechanical data

Contacts	Rated current	Voltage	
		A/C	D/C
Solder version	1A	250V	250V

Accessories

■ Micro Protection Cap for Male Connector

- Cover series: M12
- Gender: for Male
- Locking type: Fix screw
- Part No.: PCNM12x1.0-0



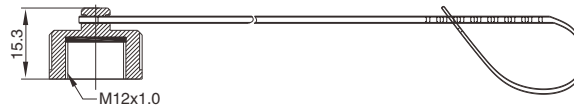
■ General information

Material:	PA+GF
O-ring:	FKM

Color:	Black
Degree of protection:	IP 67 in locked condition

■ Micro Protection Cap for Male Molded Cable Connector

- Cover series: M12
- Gender: for Male
- Locking type: Fix screw
- Part No.: PCNM12x1.0-3



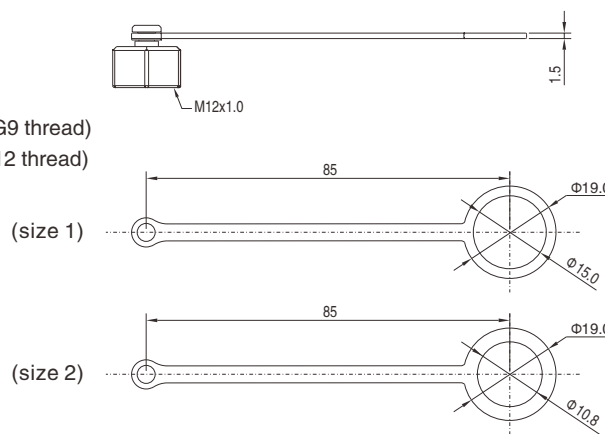
■ General information

Color:	Black
nut/screw:	PA+GF
Gasket:	FKM

Loop:	TPU
IP rating:	IP 67 in locked condition

■ Micro Protection Cap for Male Panel-mount Connector

- Cover series: M12
- Gender: for Male
- Locking type: Fix screw
- Part No.: PCNM12x1.0-4(for PG9 thread)
PCNM12x1.0-1(for M12 thread)



■ General information

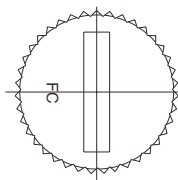
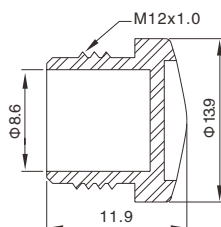
Material:	PA+GF
O-ring:	FKM

Color:	Black
Degree of protection:	IP 67 in locked condition

Accessories

■ Micro Protection Cap for Female Connector

- Cover series: M12
- Gender: for Female
- Locking type: Fix screw
- Part No.: PCSM12x1.0-1

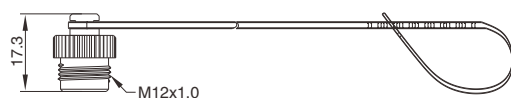


■ General information

Material:	PA+GF
Color:	Black
Degree of protection:	IP 67 in locked condition

■ Micro Protection Cap for Female Molded Cable Connector

- Cover series: M12
- Gender: for Female
- Locking type: Fix screw
- Part No.: PCSM12x1.0-2

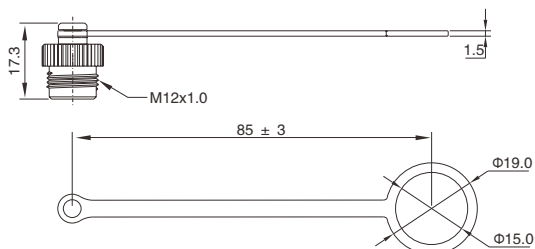


■ General information

Color:	Black	Loop:	TPU
nut/screw:	PA+GF	IP rating:	IP 67 in locked condition

■ Micro Protection Cap for Female Panel-mount Connector

- Cover series: M12
- Gender: for Female
- Locking type: Fix screw
- Part No.: PCSM12x1.0-3



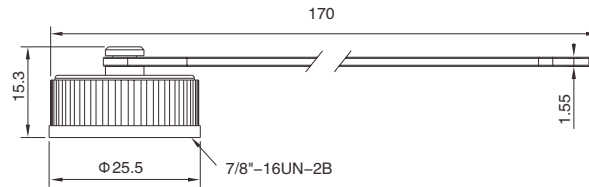
■ General information

Color:	Black	Loop:	TPU
nut/screw:	PA+GF	IP rating:	IP 67 in locked condition

Accessories

■ Mini Protection Cap for Male Molded Cable Connector

- Connector series: Mini-change
- Gender: for Male
- Locking type: Fix screw
- Part No.: PCN7/8"-2



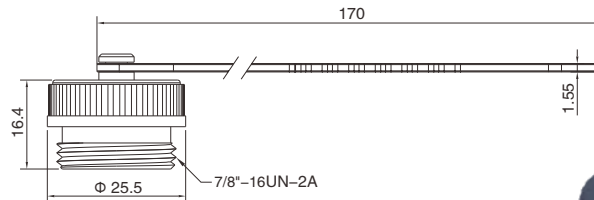
■ General information

Color:	Black
nut/screw:	PA+GF
Gasket:	FKM

Loop:	TPU
IP rating:	IP67 in locked condition

■ Mini Protection Cap for Female Molded Cable Connector

- Connector series: Mini-change(7/8")
- Gender: for Female
- Locking type: Fix screw
- Part No.: PCS7/8"-1



■ General information

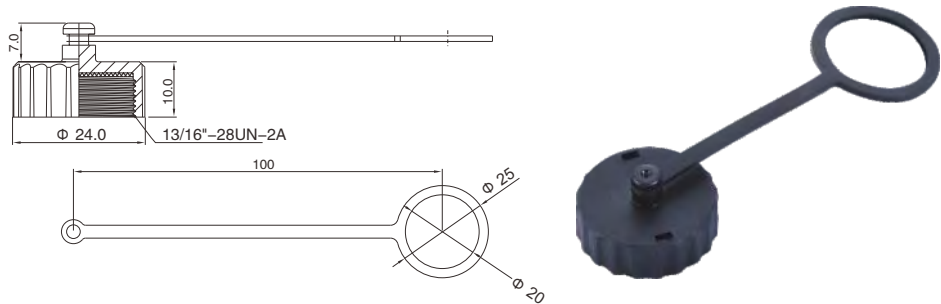
Color:	Black
nut/screw:	PA+GF

Loop:	TPU
IP rating:	IP67 in locked condition

Accessories

■ USB/RJ45 Protection cap for Male Panel-mount Connector

- Connector series: USB/RJ45
- Gender: for Male
- Locking type: Fix screw
- Part No.: PCN13/16"-28UN-1

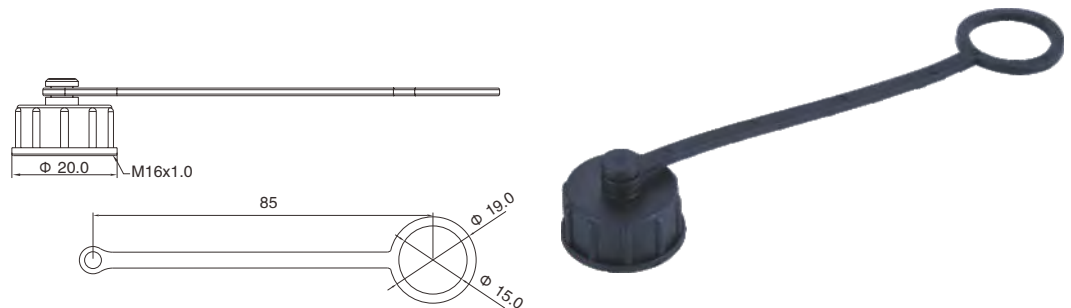


■ General information

Material:	PA+GF
O-ring:	FKM
Loop:	TPU
Color:	Black
Degree of protection:	IP67 in locked condition

■ Mini-USB/Micro-USB/Mini-Din Protection cap for Male Panel-mount Connector

- Connector series: Mini-USB/Micro-USB/Mini-Din
- Gender: for Male
- Locking type: Fix screw
- Part No.: PCN16x1.0-1



■ General information

Material:	PA+GF
O-ring:	FKM
Loop:	TPU
Color:	Black
Degree of protection:	IP67 in locked condition