

Industrial I/O

connectors



Industrial I/O connectors

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 2.0 / USB 3.0, Mini-DIN, D-sub connectors, Optical Fiber and UHF connectors.

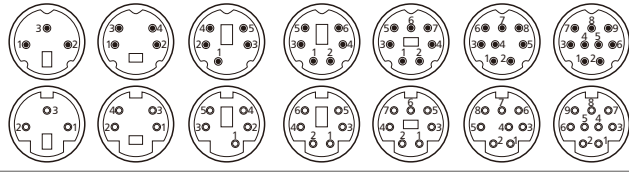
- Degree of protection IP 67
- TPU over molded or PA+GF housing
- Copper alloy contacts and shell
- Cable length customized, PUR and PVC cable options

Quick Search Table

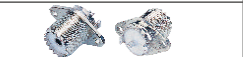
Industrial I/O connectors

Mini-Din



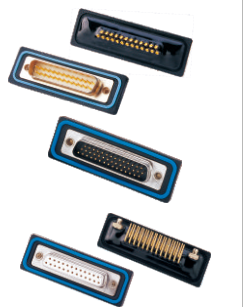
Locking type	Fix screw
Rated Current	1.0A / 1.5A
Voltage	100Vac / 12Vdc
Wire Gauge / size	24AWG / 0.25mm ²
Pin layout	
Mini-Din Male Molded Cable Straight	450
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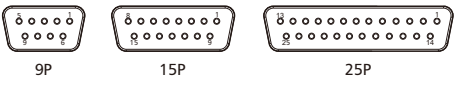
USB



Connectors	Page	Rated Current	Voltage	Pin layout
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USB2.0 Male Field Wirable Assembly Straight	455			
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RJ45 Molded Cable	463	1.5A	125V	RJ45 8P8C male 
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D-Sub



Connectors	Page	Pin layout
D-Sub Male Panel Mount Solder Front mount	472	
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D-Sub Male Panel Mount PCB Type	475	
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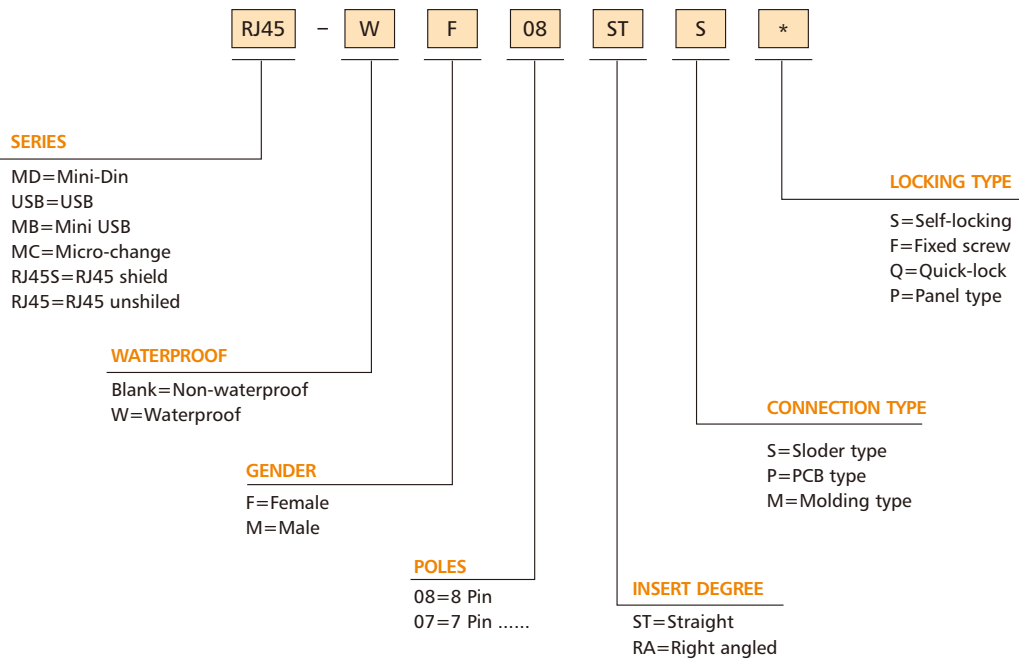
Optical Fiber



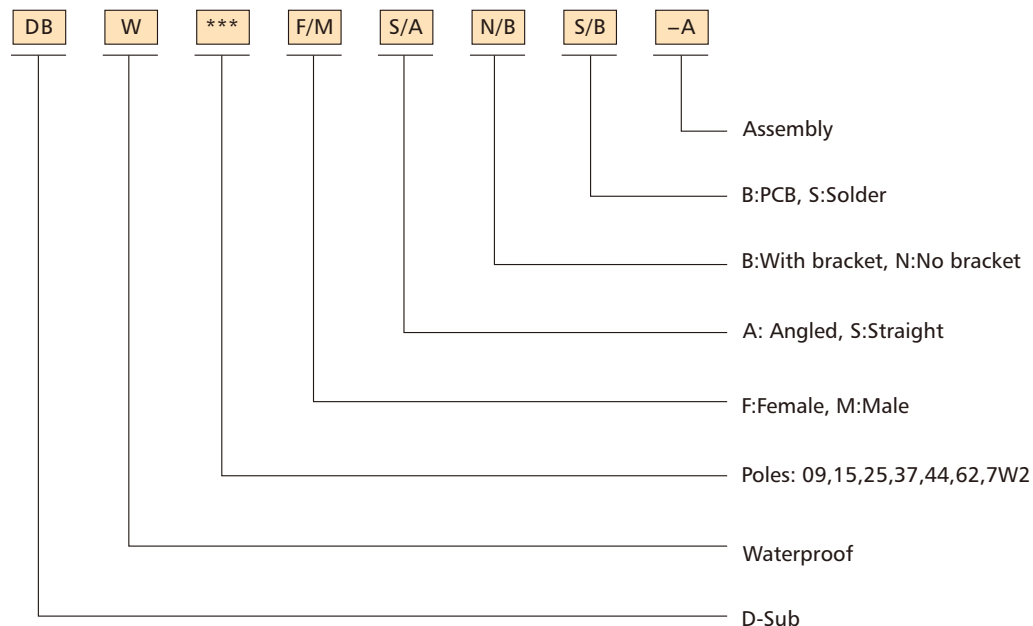
Optical Fiber Assembly SC Type	483	
Optical Fiber Panel Type SC Adapter Connector	484	
Optical Fiber Panel Type LC Adapter Connector	485	

How to Order Part Number

Industrial I/O Connectors Series



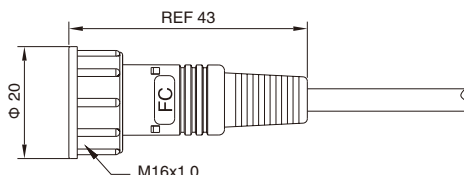
Waterproof D-Sub connectors



Mini-Din Male Molded Cable, Straight

- Connector series: Mini-Din
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MD-WM**STMF-XXXXXX

** refers to pins number
X refers to cable specification



General information

RoHS 

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

Insulation resistance:	≥20MΩ
Contact resistance :	≤20mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Voltage(Rated current)		Wire gauge / size		Cable jacket	Wire insulation	Part No.
		A/C(current)	D/C(current)	AWG	mm ²			
03 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WM03STMF-XXXX25
04 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WM04STMF-XXXX25
05 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WM05STMF-XXXX25
06 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WM06STMF-XXXX25
07 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WM07STMF-XXXX25
08 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WM08STMF-XXXX25
09 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WM09STMF-XXXX25

Note: X refers to cable specification

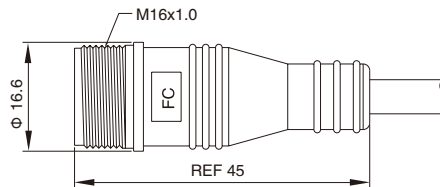
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

Mini-Din Female Molded Cable, Straight

- Connector series: Mini-Din
- Gender: Female
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: MD-WF**STMF-XXXX25

** refers to pins number
X refers to cable specification



General information



Ambient temperature:	-20°C ~ +80°C
Connector insert:	PBT
Connector contacts:	Brass with silver plated
Connector overmold:	PU
Coupling nut/screw:	PA + GF

Insulation resistance:	≥ 20MΩ
Contact resistance :	≤ 20mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Voltage(Rated current)		Wire gauge / size		Cable jacket	Wire insulation	Part No.
		A/C(current)	D/C(current)	AWG	mm ²			
03 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WF03STMF-XXXX25
04 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WF04STMF-XXXX25
05 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WF05STMF-XXXX25
06 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WF06STMF-XXXX25
07 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WF07STMF-XXXX25
08 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WF08STMF-XXXX25
09 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PUR / PVC	PVC	MD-WF09STMF-XXXX25

Note: X refers to cable specification

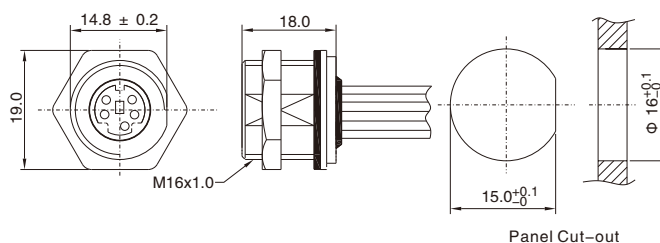
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

Mini-Din Female Panel Mount, Solder, Front fastened

- Connector series: Mini-Din
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: MD-WF**STSF

** refers to pins number



General information



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

Insulation resistance:	≥ 20MΩ
Contact resistance :	≤ 20mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Voltage(Rated current)		Wire gauge / size		Wire insulation	Part No.
		A/C(current)	D/C(current)	AWG	mm ²		
03 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PVC wire or customized	MD-WF03STSF
04 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PVC wire or customized	MD-WF04STSF
05 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PVC wire or customized	MD-WF05STSF
06 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PVC wire or customized	MD-WF06STSF
07 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PVC wire or customized	MD-WF07STSF
08 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PVC wire or customized	MD-WF08STSF
09 pins		100V(1.0A)	12V(1.5A)	24AWG	0.25	PVC wire or customized	MD-WF09STSF

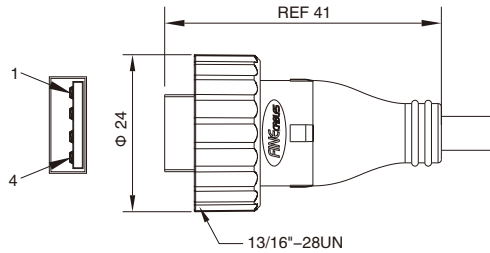
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

USB2.0 Male Molded Cable, Straight

- Connector series: USB 2.0
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: USB2.0-WM04STMF-XXCB

X refers to cable specification



RoHS

General information

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

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Cable jacket	Wire insulation	Part No.
			A/C	D/C			
USB 2.0	 Type A male	1.5A	30V	30V	PVC	PVC	USB2.0-WM04STMF-XXCB

Note: X refers to cable specification

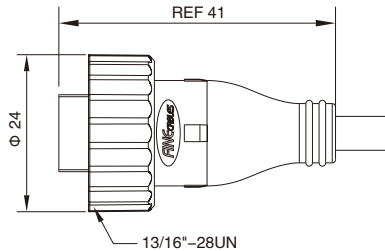
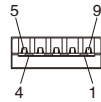
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

USB3.0 Male Molded Cable, Straight

- Connector series: USB 3.0
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: USB3.0-WM04STMF-XXCB

X refers to cable specification



RoHS 

General information

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

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Cable jacket	Wire insulation	Part No.
			A/C	D/C			
USB 3.0	 Type A male	1.8A	30V	30V	PVC	PVC	USB3.0-WM04STMF-XXCB

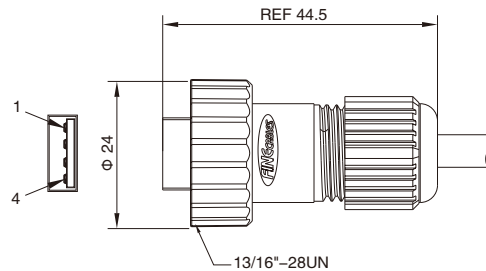
Note: X refers to cable specification

Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

USB2.0 Male Field Wirable Assembly, Straight

- Connector series: USB 2.0
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: USB2.0-WM04STAF-XXCB



RoHS

General information

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

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Cable jacket	Wire insulation	Part No.
			A/C	D/C			
USB 2.0	 Type A male	1.5A	30V	30V	PVC	PVC	USB2.0-WM04STAF-XXCB

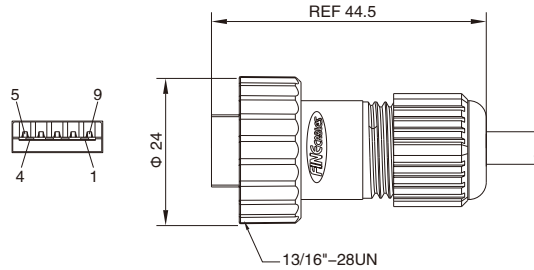
Note: X refers to cable specification

Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

USB3.0 Male Field Wirable Assembly, Straight

- Connector series: USB 3.0
- Gender: Male
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: USB3.0-WM04STAF-XXCB



RoHS 

General information

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

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Cable jacket	Wire insulation	Part No.
			A/C	D/C			
USB 3.0	 Type A male	1.8A	30V	30V	PVC	PVC	USB3.0-WM04STAF-XXCB

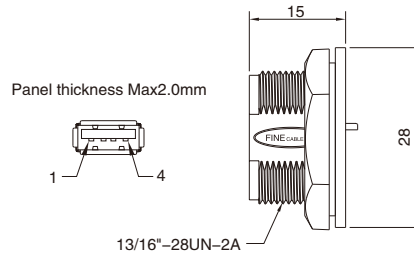
Note: X refers to cable specification

Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

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.: USB2.0-WF04STSP



RoHS

General information

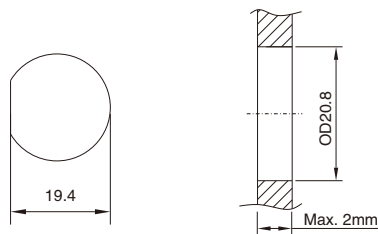
Ambient temperature:	-20℃ ~ +80℃
Connector insert:	PBT+GF
Connector contacts:	Phosphor bronze with gold plated
Connector body:	PA+GF
Coupling nut/screw:	PA+GF
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Wire insulation	Part No.
				A/C	D/C		
USB 2.0	 Type A female	Solder version	1.5A	30V	30V	PVC wire or customized	USB2.0-WF04STSP

Panel Cut-out Dimensions

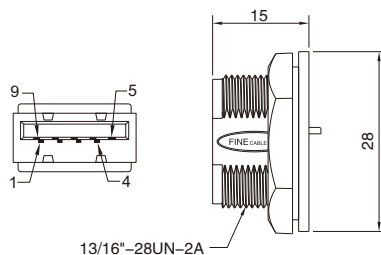


Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

USB3.0 Female Panel Mount, Solder, Front fastened

- Connector series: USB 3.0
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: USB3.0-WF04STSP



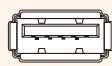
RoHS 

General information

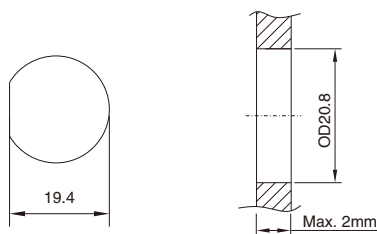
Ambient temperature:	-20℃ ~ +80℃
Connector insert:	PBT+GF
Connector contacts:	Phosphor bronze with gold plated
Connector body:	PA+GF
Coupling nut/screw:	PA+GF
Seal/O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Wire insulation	Part No.
				A/C	D/C		
USB 3.0	 Type A female	Solder version	1.8A	30V	30V	PVC wire or customized	USB3.0-WF04STSP

Panel Cut-out Dimensions



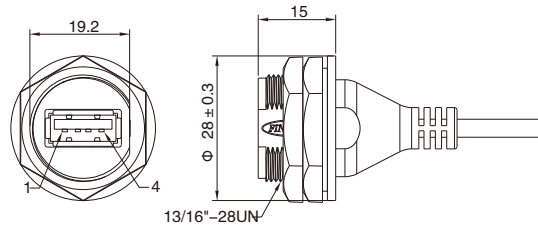
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

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.: USB2.0-WF04STSP-XXX

X refers to cable specification



RoHS

General information

Ambient temperature:	-20℃ ~ +80℃
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

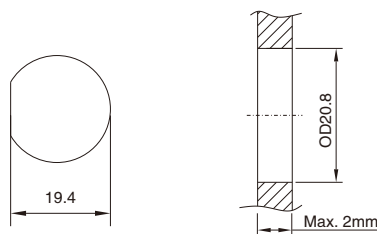
Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Wire insulation	Part No.
				A/C	D/C		
USB 2.0	 Type A female	Solder version	1.5A	30V	30V	PVC wire or customized	USB2.0-WF04STSP-XXX

Note: X refers to cable specification

Panel Cut-out Dimensions



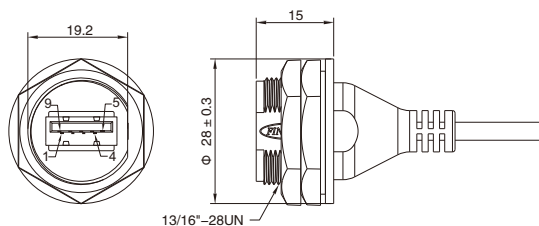
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

USB3.0 Female Panel Mount+SR, Solder, Front fastened

- Connector series: USB 3.0
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: USB3.0-WF04STSP-XXX

X refers to cable specification



RoHS

General information

Ambient temperature:	-20℃ ~ +80℃
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

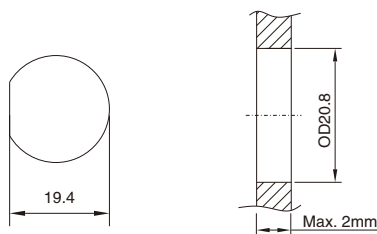
Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Wire insulation	Part No.
				A/C	D/C		
USB 3.0	 Type A female	Solder version	1.8A	30V	30V	PVC wire or customized	USB3.0-WF04STSP-XXX

Note: X refers to cable specification

Panel Cut-out Dimensions



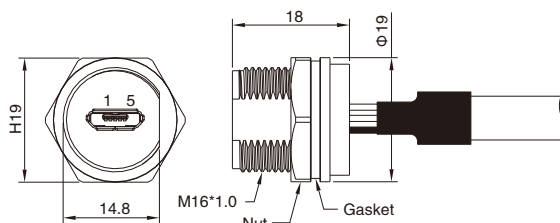
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

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



RoHS

General information

Ambient temperature: -20℃ ~ +80℃

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 : $\leq 30m\Omega$

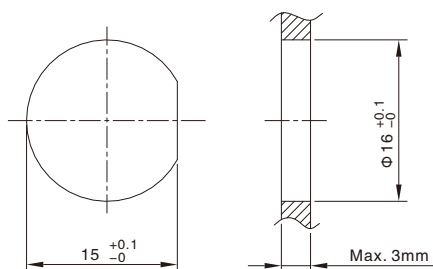
Shielding: Available

IP rating: IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Wire insulation	Part No.
				A/C	D/C		
Micro USB	 5P Micro B female	Solder version	1A	30V	30V	PVC wire or customized	MB-WF05STSP-MICRO

Panel Cut-out Dimensions



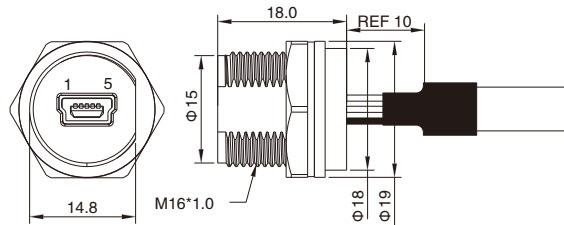
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

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



RoHS

General information

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

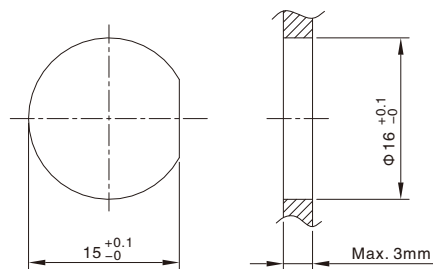
Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Wire insulation	Part No.
				A/C	D/C		
Mini USB	5P Mini B female	Solder version	1A	30V	30V	PVC wire or customized	MB-WF05STSP-XXX

Note: X refers to cable specification

Panel Cut-out Dimensions



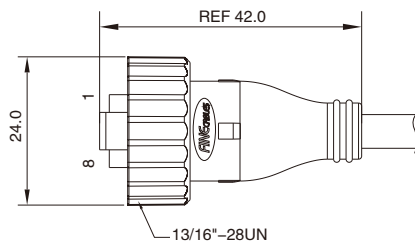
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

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℃ ~ +60℃
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:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Wire gauge / size		Cable jacket	Wire insulation	Part No.
			A/C	D/C	AWG	mm ²			
RJ45 8P8C	 male	1.5A	125V	125V	24AWG	0.25	PVC	PE	RJ45-WM08STMF-XXXX25

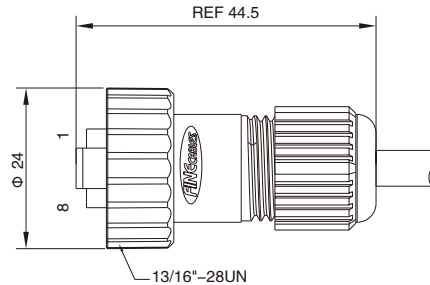
Note: X refers to cable specification

Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

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℃
Connector insert:	PC
Connector contacts:	Copper alloy 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:	IP67 in locked condition

Electrical data & Mechanical data

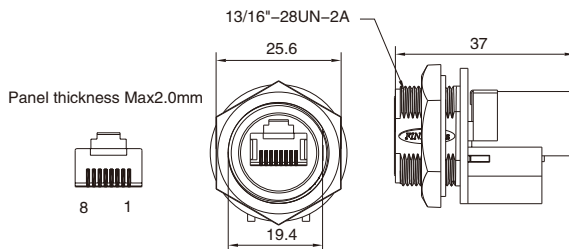
Contacts		Rated current	Voltage		Wire gauge / size		Cable jacket	Wire insulation	Part No.
			A/C	D/C	AWG	mm ²			
RJ45 8P8C	 male	1.5A	125V	125V	24AWG	0.25	PVC	PE	RJ45S-WM08STAF

Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

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

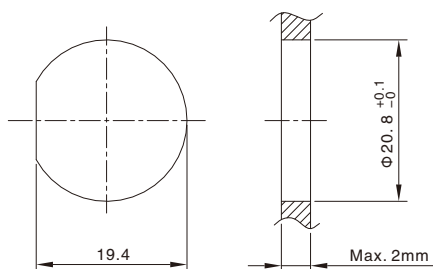
Ambient temperature:	-20℃ ~ +80℃
Connector insert:	PBT+GF
Connector contacts:	Phosphor bronze with gold plated
Coupling nut/screw:	PA+GF
Seal / O-ring:	FKM

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 30mΩ
Shielding:	Available
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Part No.
			A/C	D/C	
RJ45 8P8C	 female	1.5A	125V	125V	RJ45S-WF08STSP

Panel Cut-out Dimensions

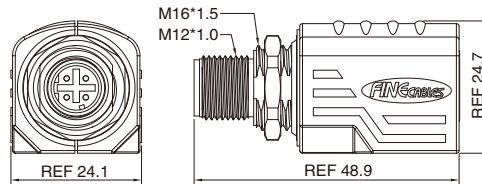


Remarks

- Please refer to Page 449 for products' part number encoding rule.

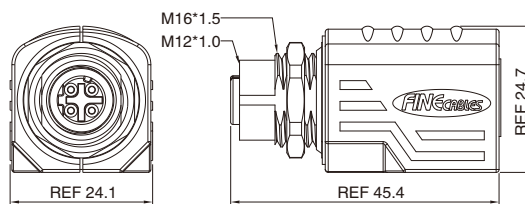
M12-RJ45 Adapters, Straight, Weld type

- Connector series: M12 to RJ45 Adapter
- Gender: Male
- Coding: D
- Locking type: Fix screw
- Mounting type: Front mounting
- Part No.: M12/RJ45-MDST(P)



M12-RJ45 Adapters, Straight, Weld type

- Connector series: M12 to RJ45 Adapter
- Gender: Female
- Coding: D
- Locking type: Fix screw
- Mounting type: Front mounting
- Part No.: M12/RJ45-FDST(P)



General information

Ambient temperature:	-25°C ~ +85°C
Connector insert:	PA
Connector contacts:	Copper alloy
Connector nut/screw:	Brass with nickel plated
Seal / O-ring:	FKM

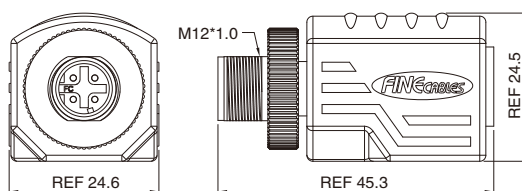
Shielding:	Unavailable
IP rating:	M12 male IP67 In locked condition
	M12 female IP65 In locked condition

Electrical data & Mechanical data

Contacts	Rated current	Voltage		Part No.
		A/C	D/C	
04 pins M12 male M12 female RJ45 female	1.5A	150V	150V	M12/RJ45-MDST(P) M12/RJ45-FDST(P)

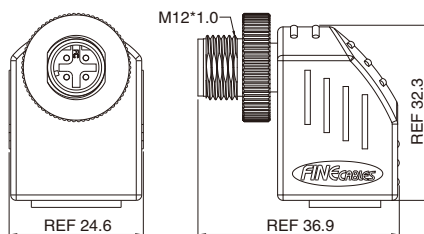
M12-RJ45 Adapters, Straight, Molded type

- Connector series: M12 to RJ45 Adapter
- Gender: Male
- Coding: D
- Locking type: Fix screw
- Mounting type: Straight
- Part No.: M12/RJ45-MDST



M12-RJ45 Adapters, Angled, Molded type

- Connector series: M12 to RJ45 Adapter
- Gender: Male
- Coding: D
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: M12/RJ45-MDRA



General information

Ambient temperature:	-25°C ~ +85°C
Connector body:	TPU
Connector contacts:	Copper alloy
Connector nut/screw:	Brass with nickel plated

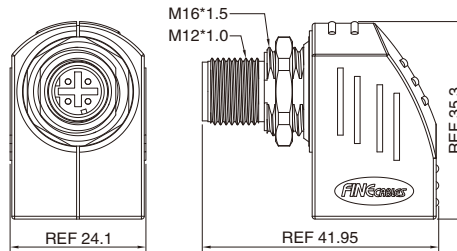
Shielding:	Unavailable
IP rating:	M12 IP67 In locked condition

Electrical data & Mechanical data

Contacts	Rated current	Voltage		Part No.
		A/C	D/C	
04 pins  M12 male  RJ45 female	1.5A	150V	150V	M12/RJ45-MDST M12/RJ45-MDRA

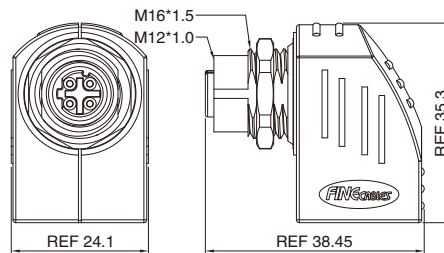
M12-RJ45 Adapters, Angled, Weld type

- Connector series: M12 to RJ45 Adapter
- Gender: Male
- Coding: D
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: M12/RJ45-MDRA(P)



M12-RJ45 Adapters, Angled, Weld type

- Connector series: M12 to RJ45 Adapter
- Gender: Female
- Coding: D
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: M12/RJ45-FDRA(P)



General information

Ambient temperature:	-25°C ~ +85°C
Connector insert:	PA
Connector contacts:	Copper alloy
Connector nut/screw:	Brass with nickel plated
Seal / O-ring:	FKM

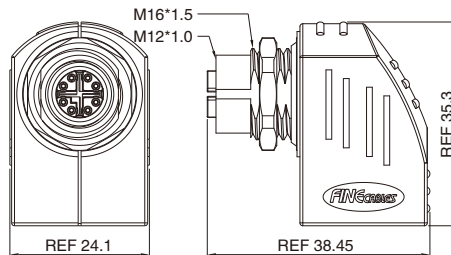
Shielding:	Unavailable
IP rating:	M12 male IP67 In locked condition
	M12 female IP65 In locked condition

Electrical data & Mechanical data

Contacts	Rated current	Voltage		Part No.
		A/C	D/C	
04 pins M12 male M12 female RJ45 female	1.5A	150V	150V	M12/RJ45-MDRA(P) M12/RJ45-FDRA(P)

M12-RJ45 Adapters, Angled, Weld type, X-coding

- Connector series: M12 to RJ45 Adapter
- Gender: Female
- Coding: X
- Locking type: Fix screw
- Mounting type: Front mounting
- Part No.: M12/RJ45-FXRA(P)



General information

Ambient temperature:	-25°C ~ +85°C
Connector insert:	PA
Connector contacts:	Copper alloy
Connector nut/screw:	Brass with nickel plated
Seal / O-ring:	FKM

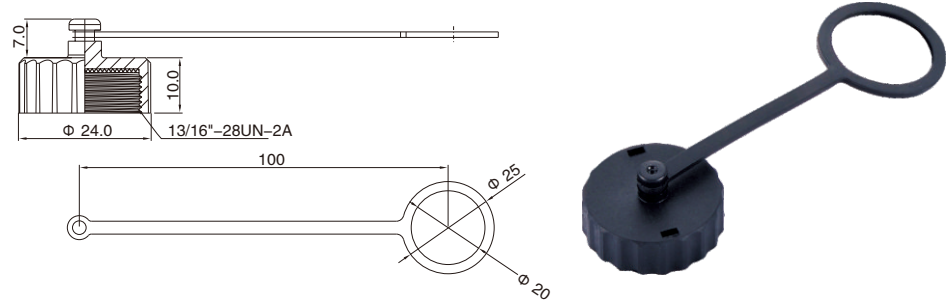
Shielding:	Unavailable
IP rating:	M12 IP65 In locked condition

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Part No.
			A/C	D/C	
08 pins	  M12 X-coding RJ45 female	1.5A	150V	150V	M12/RJ45-FXRA(P)

USB/RJ45 Protection cap for Female Panel-mount Connector

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

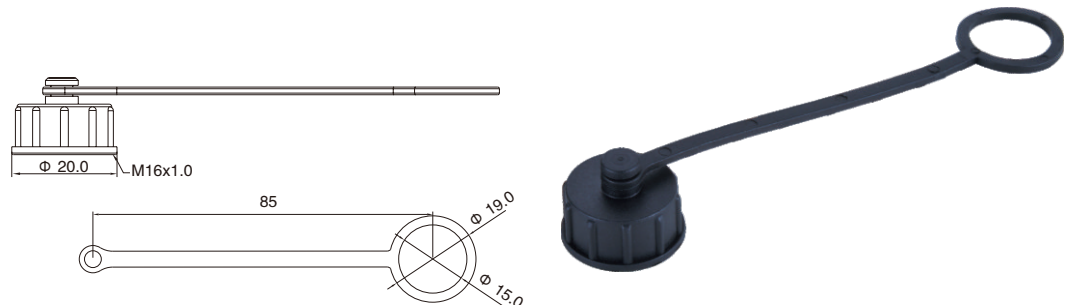


General information

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 Female Panel-mount Connector

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

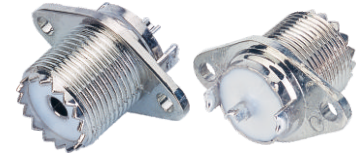
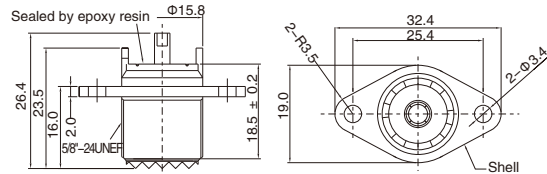


General information

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

Waterproof UHF Connector

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



General information

RoHS

Ambient temperature:	-30℃ ~ +85℃
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:	IP67 in locked condition

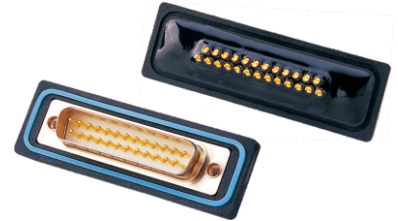
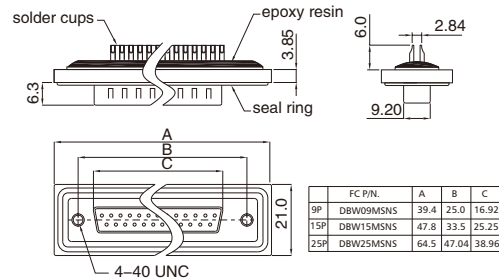
Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
UHF female		Solder version	1A	250V	250V	UHF

D-Sub Male Panel Mount, Solder

- Connector series: D-Sub
- Gender: Male
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW**MSNS

** refers to pins number



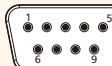
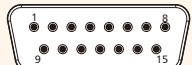
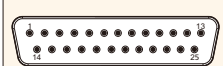
RoHS 

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub 9P		Solder version	5A	300V	300V	DBW09MSNS
D-Sub 15P		Solder version	5A	300V	300V	DBW15MSNS
D-Sub 25P		Solder version	5A	300V	300V	DBW25MSNS

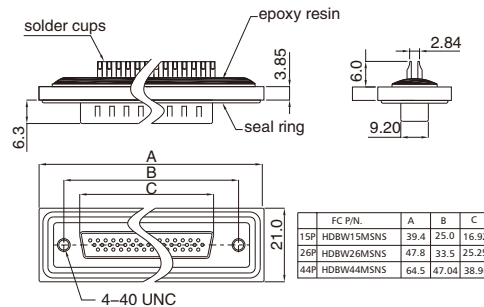
Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Male Panel Mount, Solder

- Connector series: D-Sub
- Gender: Male
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: HDBW**MSNS

** refers to pins number



RoHS

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub 15P		Solder version	5A	300V	300V	HDBW09MSNS
D-Sub 26P		Solder version	5A	300V	300V	HDBW26MSNS
D-Sub 44P		Solder version	5A	300V	300V	HDBW44MSNS

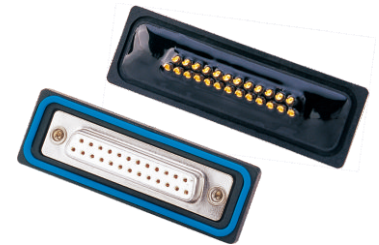
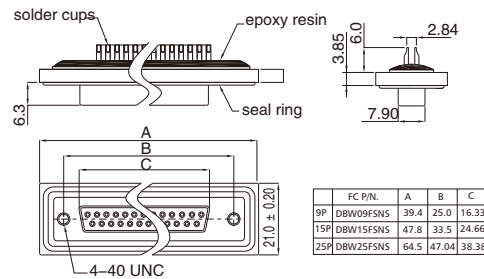
Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Female Panel Mount, Solder

- Connector series: D-Sub
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW**FSNS

** refers to pins number



RoHS

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub 9P		Solder version	5A	300V	300V	DBW09FSNS
D-Sub 15P		Solder version	5A	300V	300V	DBW15FSNS
D-Sub 25P		Solder version	5A	300V	300V	DBW25FSNS

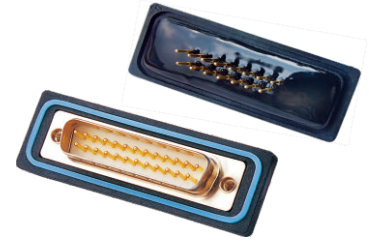
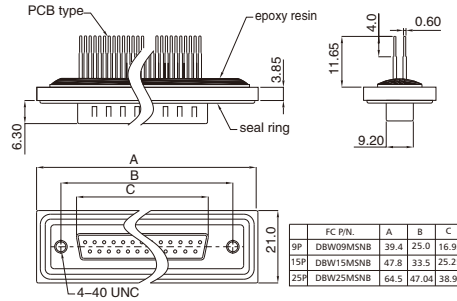
Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Male Panel Mount, PCB Type

- Connector series: D-Sub
- Gender: Male
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW**MSNB

** refers to pins number



RoHS

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub 9P		PCB version	5A	300V	300V	DBW09MSNB
D-Sub 15P		PCB version	5A	300V	300V	DBW15MSNB
D-Sub 25P		PCB version	5A	300V	300V	DBW25MSNB

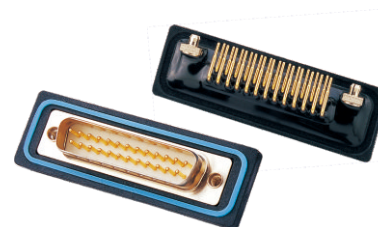
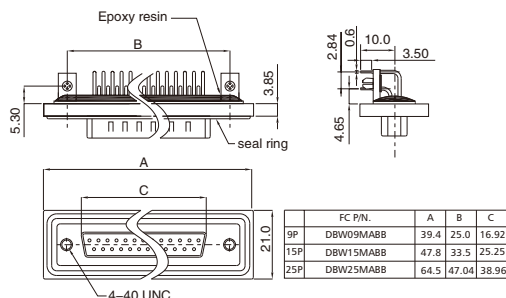
Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Male Panel Mount, Angled Contacts PCB Type

- Connector series: D-Sub
- Gender: Male
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW**MABB

** refers to pins number



RoHS

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub 9P		PCB version	5A	300V	300V	DBW09MABB
D-Sub 15P		PCB version	5A	300V	300V	DBW15MABB
D-Sub 25P		PCB version	5A	300V	300V	DBW25MABB

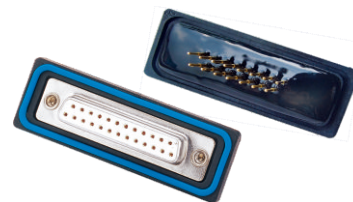
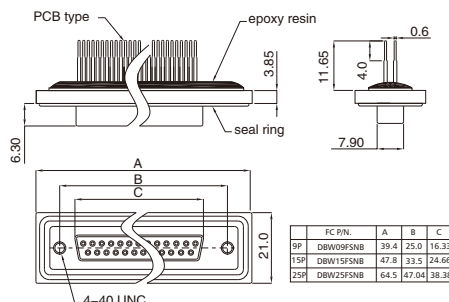
Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Female Panel Mount, PCB Type

- Connector series: D-Sub
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW**FSNB

** refers to pins number



RoHS

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub 9P		PCB version	5A	300V	300V	DBW09FSNB
D-Sub 15P		PCB version	5A	300V	300V	DBW15FSNB
D-Sub 25P		PCB version	5A	300V	300V	DBW25FSNB

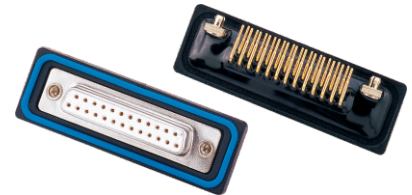
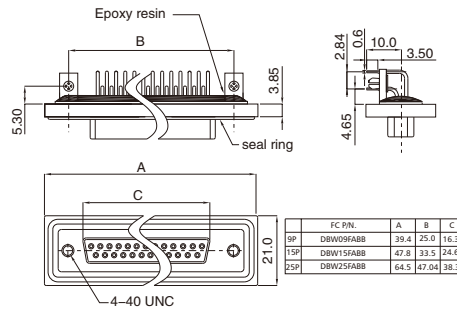
Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Female Panel Mount, Angled Contacts PCB Type

- Connector series: D-Sub
- Gender: Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW**FABB

** refers to pins number



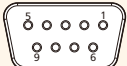
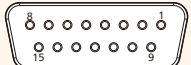
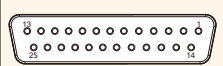
RoHS 

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

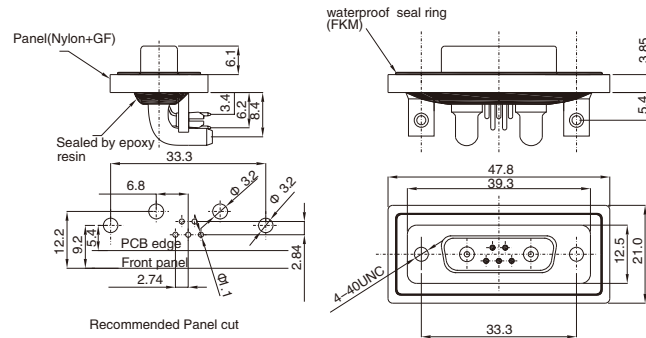
Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub 9P		PCB version	5A	300V	300V	DBW09FABB
D-Sub 15P		PCB version	5A	300V	300V	DBW15FABB
D-Sub 25P		PCB version	5A	300V	300V	DBW25FABB

Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Male Panel mount, Angled Contacts PCB type

- Connector series: D-Sub
- Gender: Male
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW7W2MANB-A



RoHS

General information

Ambient temperature:	-20℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
Mating cycles:	> 1000
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

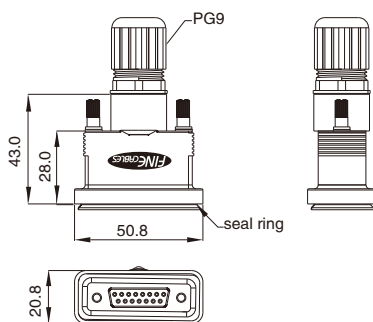
Contacts		Contacts termination	Rated current	Voltage		Part No.
				A/C	D/C	
D-Sub	 7W2	PCB version	(PinA1&A2)30A	300V	300V	DBW7W2MANB-A
		PCB version	(Pin1~5)5A	300V	300V	

Remarks

- Please refer to Page 449 for products' part number encoding rule.

D-Sub Field Wirable Assembly

- Connector series: D-Sub 15P assembly
- Gender: Male/Female
- Locking type: Fix screw
- Mounting type: Front fastened
- Part No.: DBW15MSNS-A(male)
DBW15FSNS-A(female)



RoHS

General information

Ambient temperature:	-25℃ ~ +70℃
Connector insert:	PBT+GF
Connector contacts:	Brass gold plated
Coupling nut/screw:	Brass nickel plated
Seal / O-ring:	FKM

Insulation resistance:	≥ 1000MΩ
Contact resistance :	≤ 10mΩ
Shielding:	Unavailable
IP rating:	IP67 in locked condition

Electrical data & Mechanical data

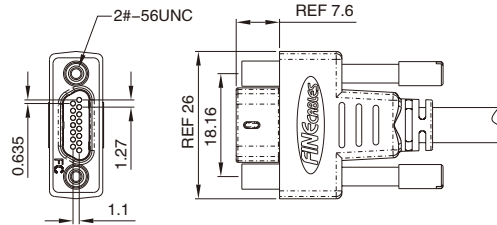
Contacts		Rated current	Voltage		Part No.
			A/C	D/C	
D-Sub 15P	 male	5A	300V	300V	DBW15MSNS-A
	 female	5A	300V	300V	DBW15FSNS-A

Remarks

- Please refer to Page 449 for products' part number encoding rule.

Micro D-Sub Molded Cable

- Connector series: Micro D-sub
 - Gender: Female
 - Locking type: Fix screw
 - Mounting type: Straight
 - Part No.: DBW15FS-XXXXXX
- X refers to cable specification



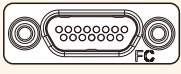
RoHS

General information

Ambient temperature: -20℃ ~ +80℃
Connector insert: PBT
Connector contacts: Brass gold plated
Connector nut/screw: Brass nickel plated

Insulation resistance: $\geq 100M\Omega$
Contact resistance : $\leq 5m\Omega$
Shielding: Available

Electrical data & Mechanical data

Contacts		Rated current	Voltage		Wire gauge / size		Cable jacket	Part No.
			A/C	D/C	AWG	mm ²		
Micro D-sub	 15P	1A	350V	350V	26~28	0.08~0.15	PUR/PVC	DBW15FS-XXXB15

Note: X refers to cable specification

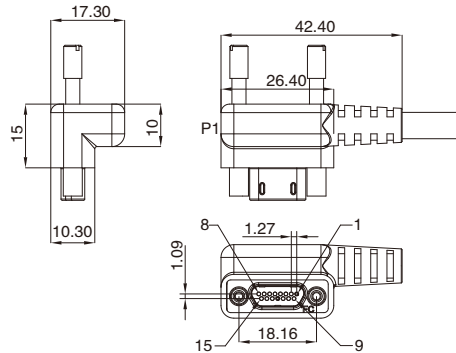
Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

Micro D-Sub Molded Cable, Right angled

- Connector series: Micro D-sub
- Gender: Female
- Locking type: Fix screw
- Mounting type: Right angled
- Part No.: DBW15FA-XXXXXX

X refers to cable specification



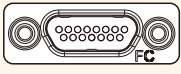
RoHS

General information

Ambient temperature:	-20℃ ~ +80℃
Connector insert:	PBT
Connector contacts:	Brass gold plated
Connector nut/screw:	Brass nickel plated

Insulation resistance:	≥ 100MΩ
Contact resistance :	≤ 5mΩ
Shielding:	Available

Electrical data & Mechanical data

Contacts	Rated current	Voltage		Wire gauge / size		Cable jacket	Part No.
		A/C	D/C	AWG	mm ²		
Micro D-sub  15P	1A	350V	350V	26~28	0.08~0.15	PUR/PVC	DBW15FA- <u>XXX</u> B15

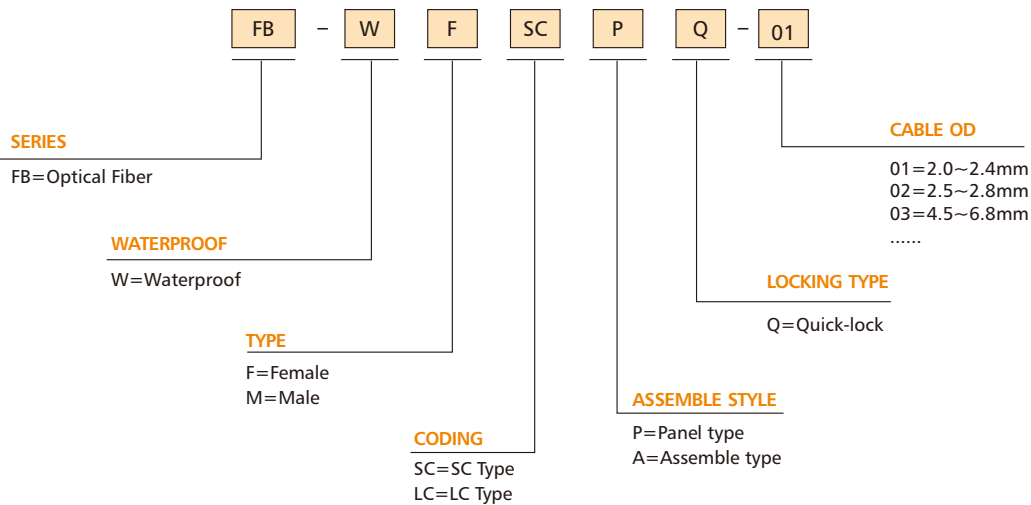
Note: X refers to cable specification

Remarks

- Please refer to Page 578 for the Conversion between American Wire Gauge AWG and Wire Cross-section mm².
- Please refer to Page 449 for products' part number encoding rule.

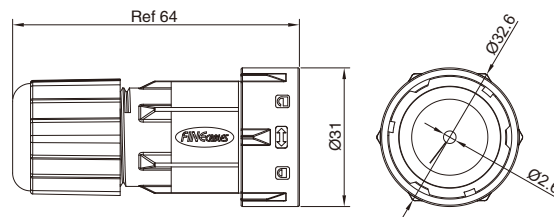
How to Order Part Number

Optical Fiber Series



Optical Fiber Assembly SC Type

- Connector series: SC / LC
 - Gender: Jack
 - Mating Style: 3 Points Lock Bayonet
 - Mounting type: Rear fastened
 - Part No.: FB-WMSCAQ-XX (for SC)
FB-WMLCAQ-XX (for LC)
- XX for cable OD rang



General information

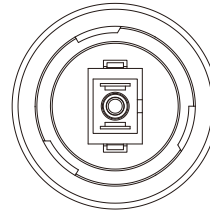
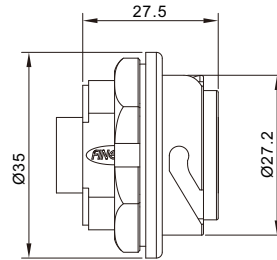
RoHS

Standard:	IEC 61754
Ambient temperature:	-40℃ ~ +105℃
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	Silicone

Insertion Loss:	≥0.3db
Return Loss:	≤30db
Mechanical durability:	>500
Operation wavelength:	1310nm~1550nm~850nm
IP rating:	IP67 In locked condition

Optical Fiber Panel Type SC Adapter Connector

- Connector series: SC
- Gender: Jack
- Mating Style: 3 Points Lock Bayonet
- Mounting type: Rear fastened
- Part No.: FB-WMSCPQ



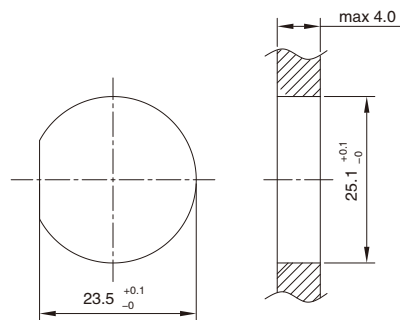
General information

RoHS 

Standard:	IEC 61754
Ambient temperature:	-40℃ ~ +105℃
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	Silicone

Insertion Loss:	≥0.3db
Return Loss:	≤30db
Mechanical durability:	>500
Operation wavelength:	1310nm~1550nm~850nm
IP rating:	IP67 In locked condition

Recommended Panel Cut-Out

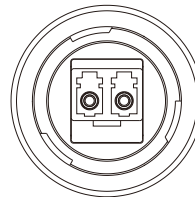
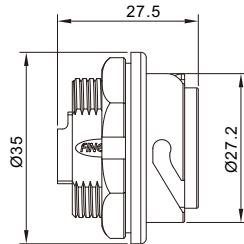


Remarks

- Please refer to Page 483 for products' part number encoding rule.

Optical Fiber Panel Type LC Adapter Connector

- Connector series: LC
- Gender: Jack
- Mating Style: 3 Points Lock Bayonet
- Mounting type: Rear fastened
- Part No.: FB-WMLCPQ



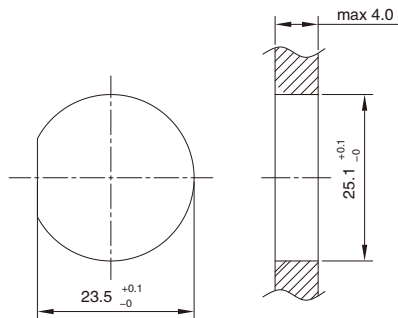
RoHS

General information

Standard:	IEC 61754
Ambient temperature:	-40°C ~ +105°C
Connector nut/screw:	PA+GF
Connector body:	PA+GF
Seal / O-ring:	Silicone

Insertion Loss:	≥0.3db
Return Loss:	≤30db
Mechanical durability:	>500
Operation wavelength:	1310nm~1550nm~850nm
IP rating:	IP67 In locked condition

Recommended Panel Cut-Out



Remarks

- Please refer to Page 483 for products' part number encoding rule.