CONTENTS

DQ series EV charging inlet

Brief introduction

- Comply with GB/T20234—2011
- Various types, DC charging connector (125A, 250A), AC charging connector (Vehicle side, power side, 16A, 32A)
- Humanized design, nice control hand feeling, easy to operate
- Optional function component: indicator light, electronic lock, etc.
- Various accessory types, dust cap type includes: damping cap, metal string cap, etc.
- Crimping termination
- Protection degree: IP55

Application

It is applied in the high voltage circuit connection in EV inside environment.

Operating environment

Vehicle—mounted charger, high voltage distribution box, machine controller, air conditioner, PTC, battery, built—in short circuit for controlling.

Main technical characteristics

[Material]

——Shell: thermoplastic
——Insulator: thermoplastic
——Sealing ring: rubber
——Insulator flame retardant rating:UL94—V0
——Contact: copper alloy, power contact: gold plating, signal contact, gold plating

[Environmental]

——Operating temperature:—30℃ ~ +50℃
——Relative humidity: 98% at 40℃
——Protection degree: IP55 (in charging process)

[Mechanical]

——Endurance: ⩾10000 cycle (mated in non—charged state)

[Electrical]

——Rating current and contact resistance:

Contact size mm	Contact resistance mΩ	Rating current A	Applicable wire mm^2
12	0.25	125	50
		250	70
6	0.5	32	6
		16	2.5
3	0.75	2	0.5

——Rating voltage: 440 AC 750 DC
——Insulation resistance: ⩾1000MΩ(AC charging connector); ⩾2000MΩ (DC charging connector)

Ordering information

[AC charging connector]

Basic series	DQ charging connector
Connecting type	C means vehicle side
	G means power side
Contact number	7, Z-receptacle
Rating current	16A or 32A
Rating voltage	250/440V
Dust cap type	0 (without dust cap), 1 (with steel string dust cap), 2 (sealing cap)
Electronic lock	0 (without electronic lock), 1 (with electronic lock)
LED light	0 (without LED light) , 1 (with LED light)
Alternative code	Cable assembly wiring type (according to customers' need)
Cable length	(according to customers' need)
Example: DQ C-7Z (16A-250/440V) -0 00 5m 16A, vehicle side receptacle, without dust cap, electronic lock, LED light, 5m of cable length.	
Basic series	DQ charging connector
Connecting type	C means vehicle side
	G means power side
Contact number	7, T-plug
Rating current	16A or 32A
Rating voltage	250/440V
Dust cap type	0 (without dust cap), 1 (with steel string dust cap)
Linked switch	0 (without linked switch), 1 (with linked switch)
Charging mode	1, 2, 3
Connecting type	A, B, C
Cable length	(according to customers' need)
Example: DQ C-7T (16A-250/440V) -0 1 1 A 5m 16A, vehicle side plug, without dust cap, with linked switch, wiring uses charging mode 1, connecting type A, cable length 5m.	

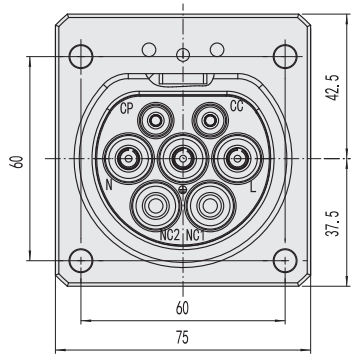
[DC charging connector]

Basic series	DQ charging connector
Contact number	9, Z-receptacle
Rating current	250A or 125A
Rating voltage	750V
Dust cap type	0 (without dust cap), 1 (with steel string dust cap), 2 (sealing cap)
LED light	0 (without LED light), 1 (with LED light)
Alternative code	Cable assembly wiring type (according to customers' need)
Cable length	(according to customers' need)

Example: DQ —9Z (250A—750V) —0 0 5m 250A DC receptacle, without dust cap, LED light, 5m of cable length.	
Basic series	DQ charging connector
Contact number	9, T—plug
Rating current	125A or 250A
Rating voltage	750V
Dust cap type	0 (without dust cap), 1 (with steel string dust cap)
Linked switch	0 (without linked switch), 1 (with linked switch)
Cable length	(according to customers' need)
Example: DQ —9T (250A—750V) —0 1 5m 250A DC plug, without dust cap, with linked switch, 5m of cable length.	

AC inlet outline dimensions

[AC charging connector insert arrangement and terminal function definition]



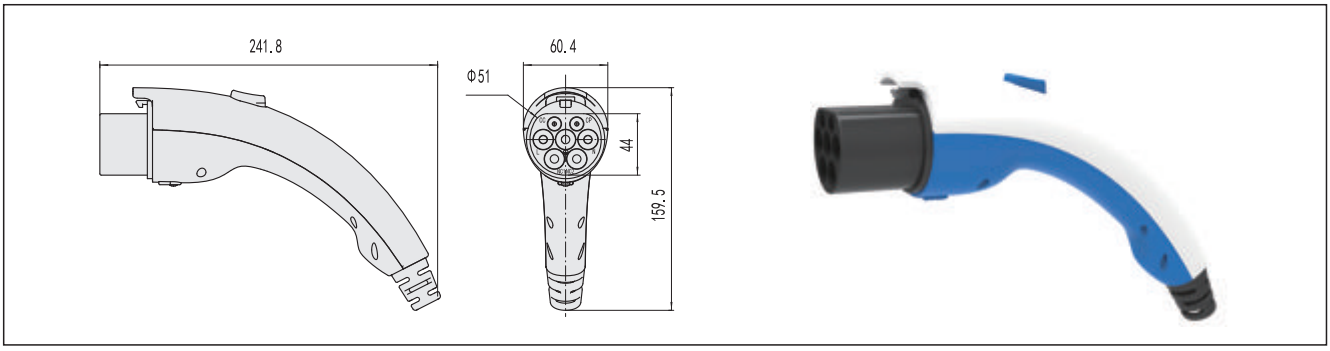
Insert arrangement (take receptacle for example)

[Illustration]

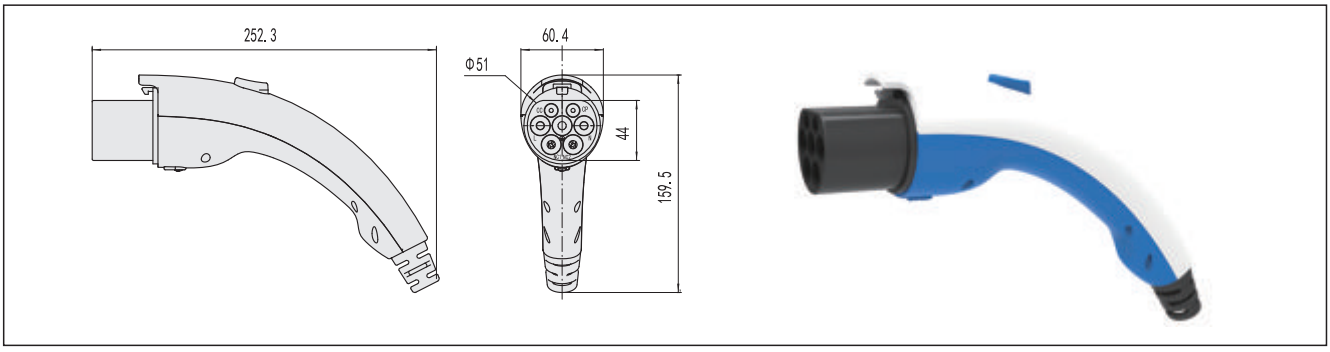
Code	Rating voltage and rating current	Function definition
L	250/440V 16A/32A	AC power
NC1	/	Spare contact
NC2	/	Spare contact
N	250/440V 16A/32A	Center line
⏚	/	Protective grounding, connect power supply equipment ground wire and vehicle chassis ground wire
CC	30V 2A	Charging connection verification
CP	30V 2A	Control verification

AC charging plug

[Vehicle side plug]

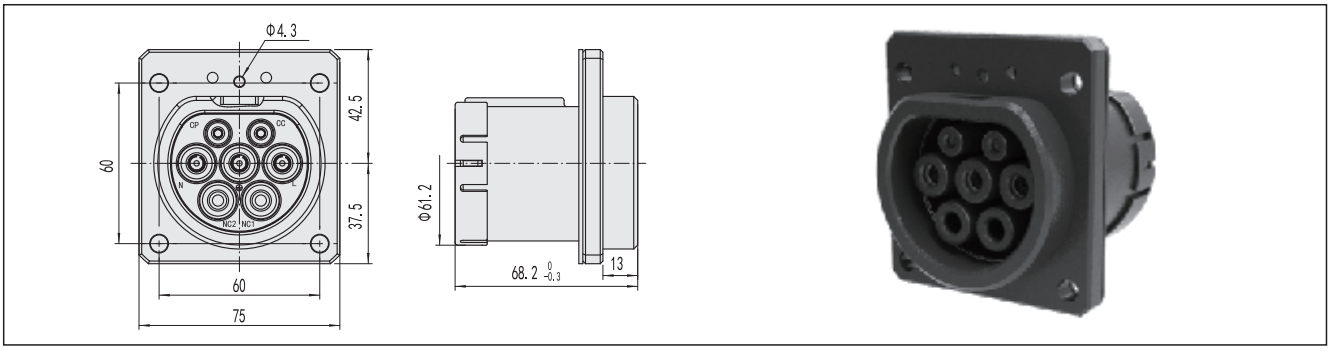


[Power side plug]

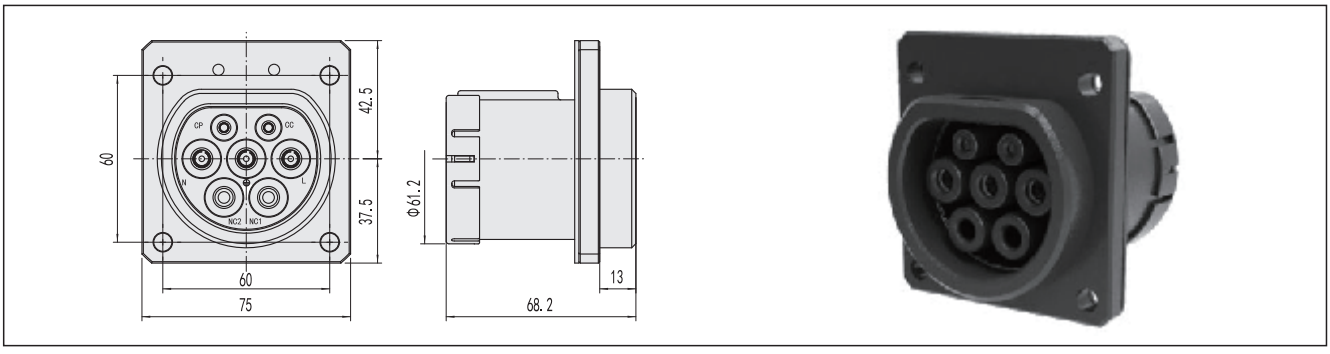


AC charging receptacle

[Vehicle side receptacle]

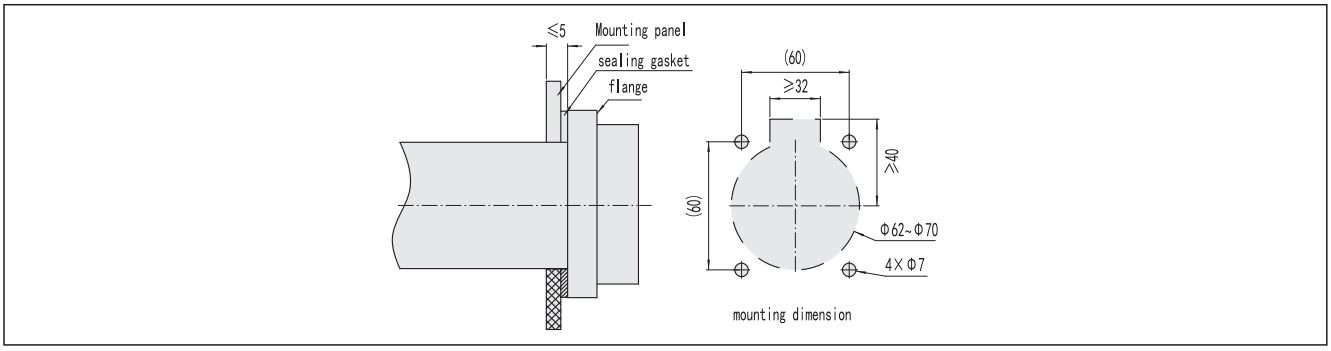


[Power side receptacle]

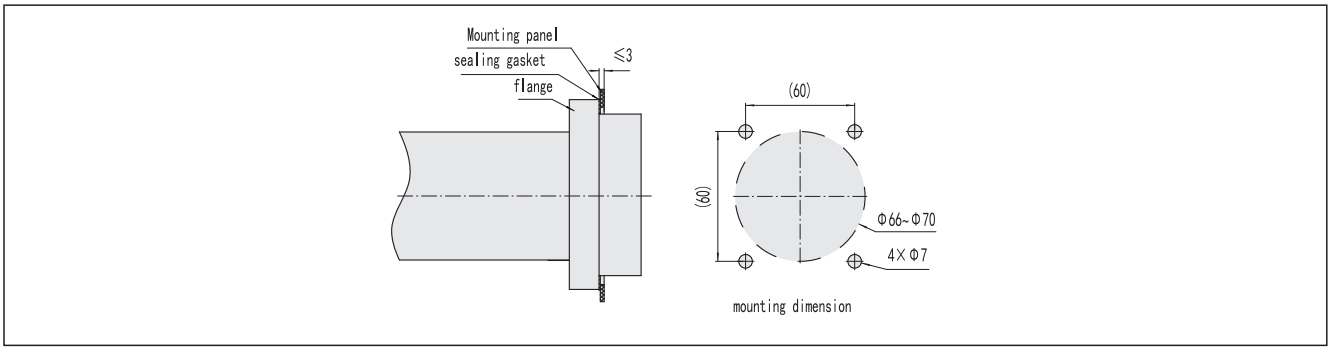


Mounting dimensions for vehicle side charging receptacle

[Front mounting view of vehicle side charging receptacle]

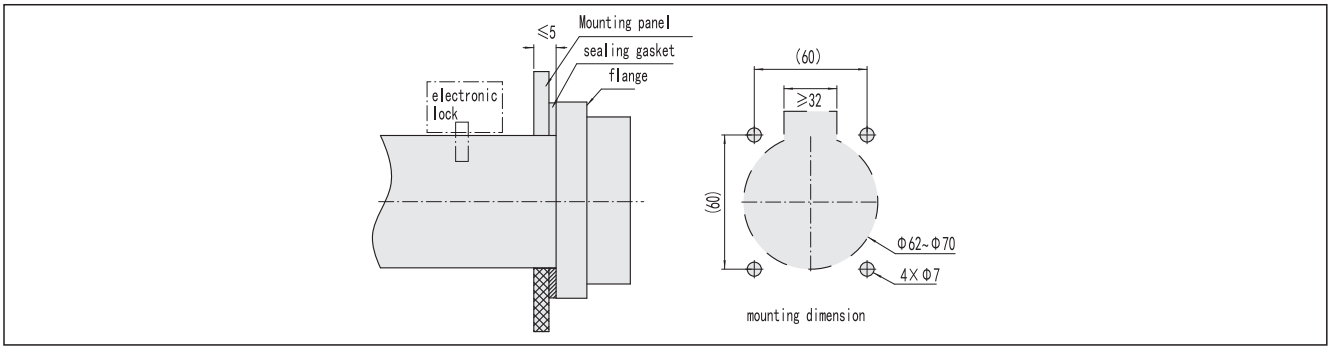


[Rear mounting view of vehicle side charging receptacle]

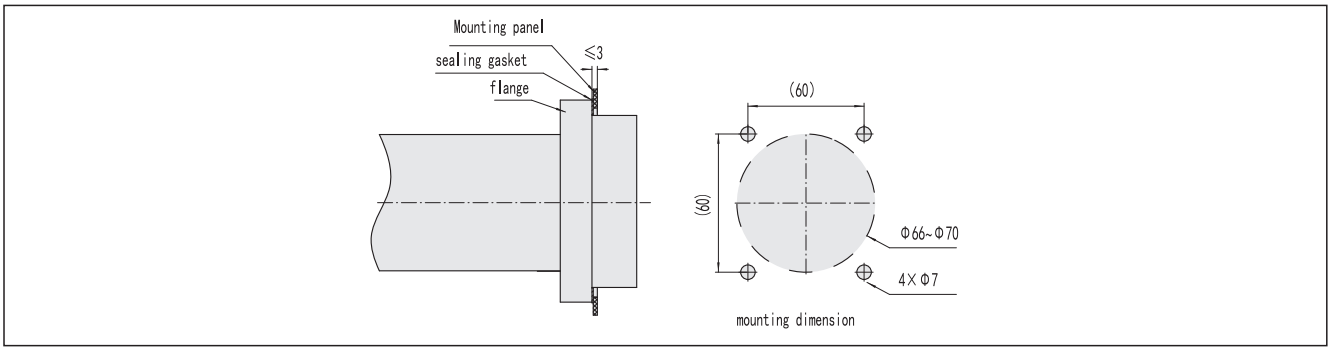


Mounting dimensions for power side charging receptacle

[Front mounting view of power side charging receptacle]

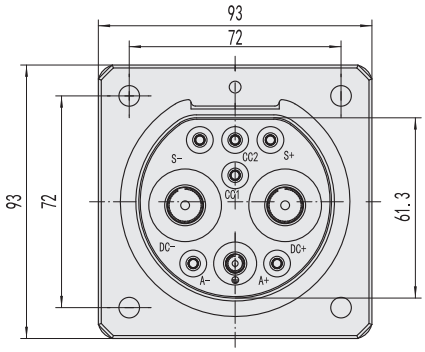


[Rear mounting view of power side charging receptacle]



DC inlet outline dimensions

[DC charging connector insert arrangement and terminal function definition]



Insert arrangement (take receptacle for example)

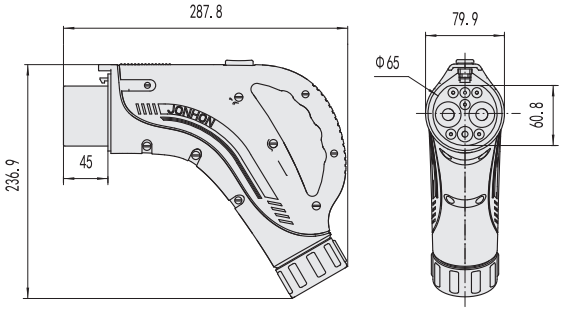
[Illustration]

Code	Rating voltage and rating current	Function definition
DC+	750V 125A/250A	DC power positive pole
DC+	750V 125A/250A	DC power negative pole
⏚	/	Protective grounding, connect power supply equipment ground wire and vehicle chassis ground wire
S+	30V 2A	Charging communication CAN_H, connect non-vehicle charging devices with EV
S-	30V 2A	Charging communication CAN_H, connect non-vehicle charging devices with EV
CC1	30V 2A	Charging connection verification 1
CC2	30V 2A	Charging connection verification 2
A+	30V 20A	Low voltage auxiliary power positive pole
A-	30V 20A	Low voltage auxiliary power negative pole

Outline dimensions

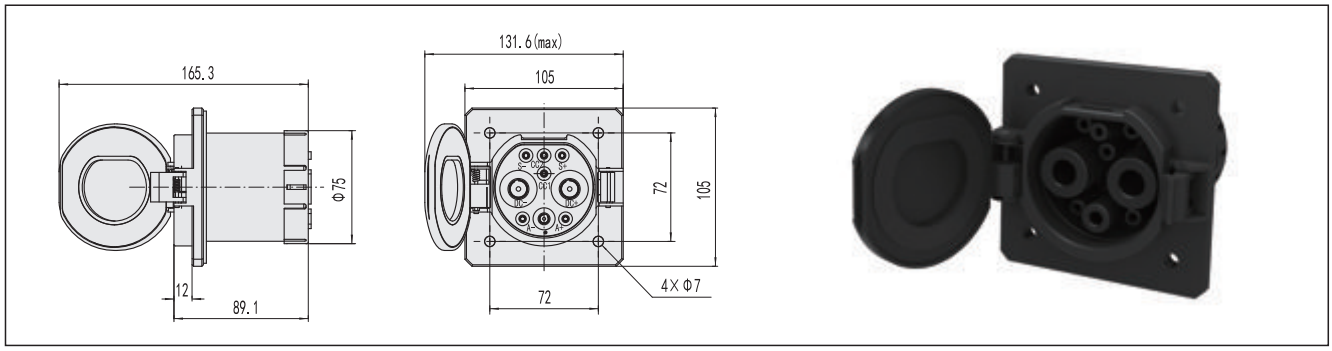
[Outline dimensions for DC charging plug]

[DQ-9T (250A-750V)]



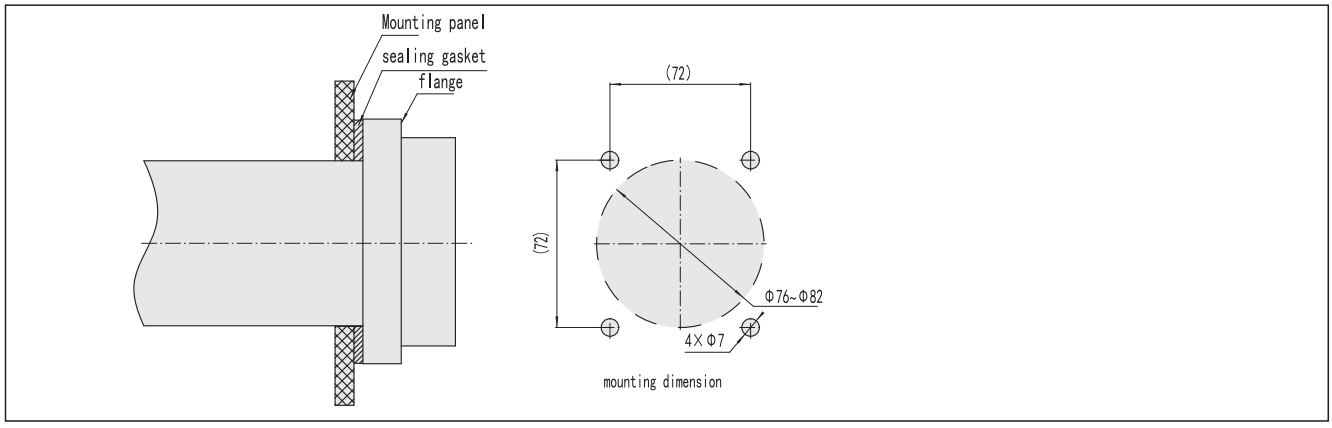
Outline dimensions for DC charging receptacle

[DQC−9Z(250A−750V)−20]

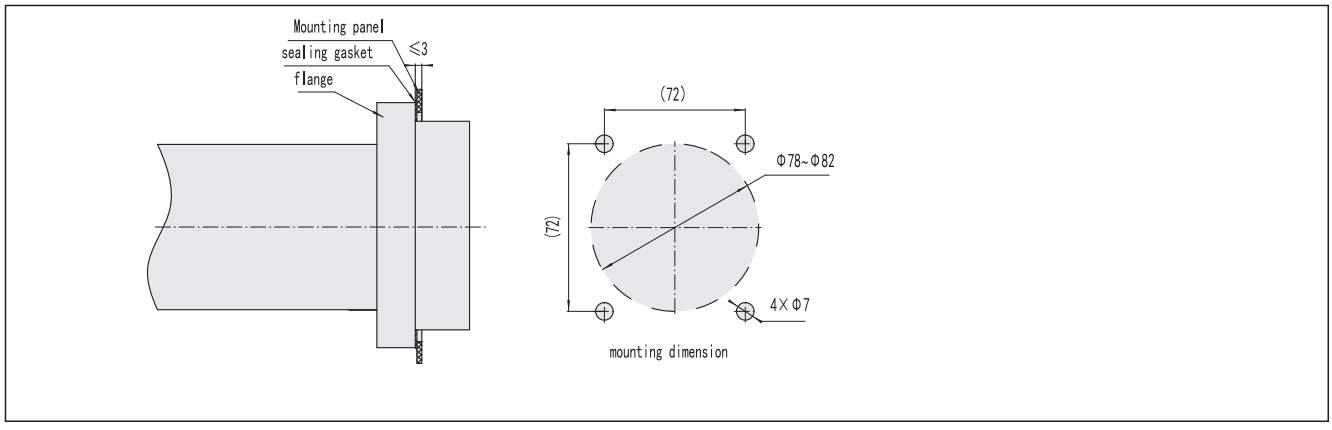


DC charging receptacle mounting dimensions

[Front mounting view of power side charging receptacle]

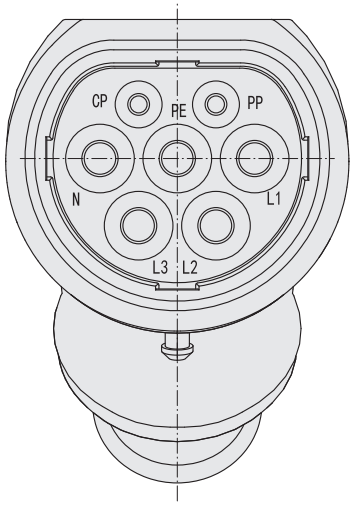
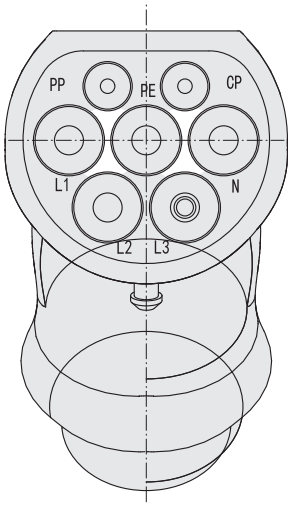


[Rear mounting view of vehicle side charging receptacle]



European standard EVC series EV charging inlet

Outline dimensions of European standard EVC plug inlet

Vehicle side plug	Power side plug
	

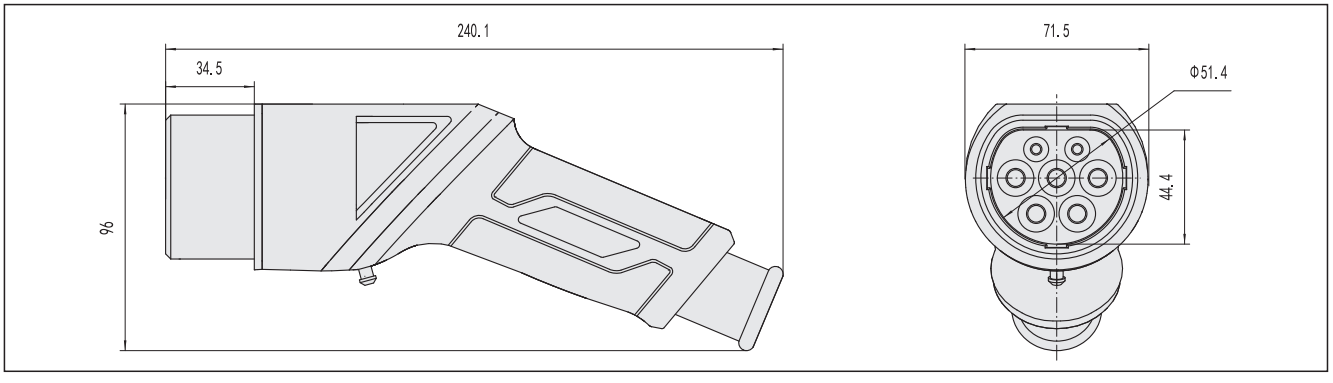
Insert arrangement (take vehicle side plug for example)

Illustration:

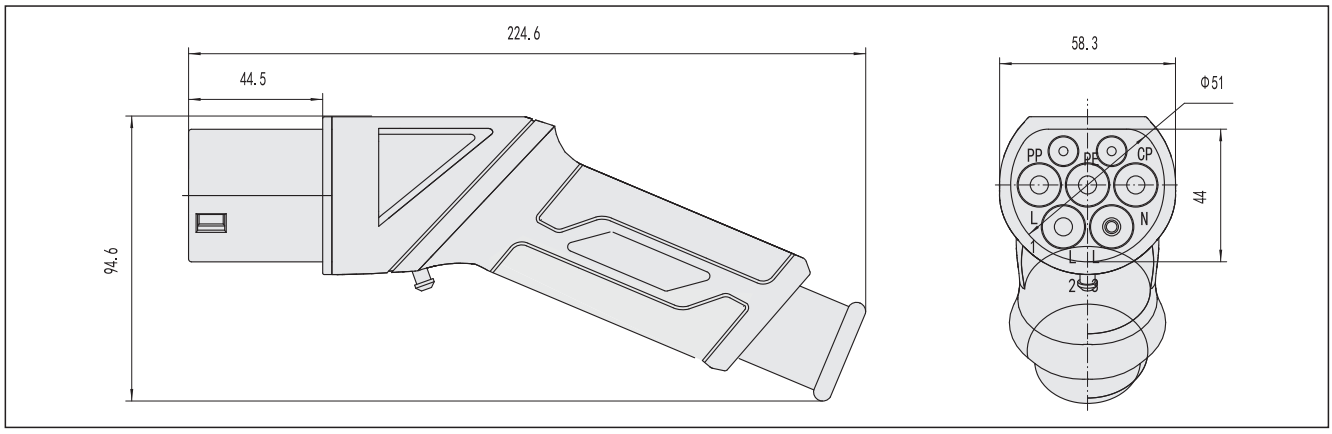
Code	Rating voltage and rating current		Function definition
	One phase	Three phase	
L1	250V 32A	480V	Phase 1
L2	/	480V	Phase 2
L3	/	480V	Phase 3
N	250V 32A	480V	
	/		Grounding
CP	30V 2A		Control identification
PP	30V 2A		Connect contacts

Outline dimensions

[European standard vehicle side charging plug]



[European standard power side charging plug]



Main technical characteristics

[Material]

——Shell:
thermoplastic
——Insulator:
thermoplastic
——Sealing ring:
rubber
——Insulator flame retardant rating:
UL94—V0
——Contact:
copper alloy, gold plating

[Electrical]

——Rating current and contact resistance:

Contact size mm	Contact resistance mΩ	Rating current A	Applicable wire mm²
Φ3	0.75	2	0.5
Φ6	0.5	13	2.5
		16~20	2.5
		30~32	6
		60~63	16
		70	16

——Rating voltage: 0~30V, 200~250V, 380~480V
——Insulation resistance: ⩾5000MΩ(normal); ⩾5MΩ (damp heat)

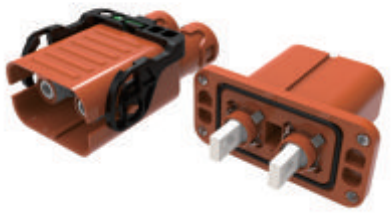
Main technical characteristics

NO.	Item	Content		Mark
1	Basic series	European standard charging connector		EVC—
2		Power plug		P—
		Power receptacle		S—
		Vehicle plug		VC—
		Vehicle receptacle		VI—
3	Rating current	Rating current		16A, 32A, 63A, 70A
4	Dust cap	Plug	Without dust cap	non
			With dust cap	—1
		Receptacle	Without dust cap	0
			With sealing cap	—1
5	Electronic lock	Receptacle	Without electronic lock	0
			With electronic lock	1(mark the position)

Part number example:
Plug: EVC—P—32A Receptacle: EVC—VI—32A—1

HVIL series high voltage interlock connector

Brief introduction



- Applicable for the connection in EV inside environment: high voltage, shielding, sealing
- 360° shielding
- The product has a signal loop
- The plug is crimped with single core shielding wire, the receptacle is crimped with single core non-shielding wire (square flange receptacle) or single core shielding wire (dropped receptacle)
- The receptacle has two types: square flange receptacle and dropped receptacle
- Straight push & pull locking structure and handle push & pull locking structure
- Twice lock function to anti separation in wrong operation
- Plastic shell, safe and light weight
- Orange outlook
- Prevent mis-operation design
- Various polarization, mounting recognition and mating recognitionfunction
- Protection degree: IP67
- Enterprise standard: Q/21EJ1799

Application

Vehicle-mounted charger, battery pack, high voltage distribution box, machine controller, charger, air conditioner, PTC, battery, built-in short circuit for controlling

Operating environment

The product is used in high voltage circuit connection inside EV.

Main technical characteristics

[Mechanical]

——Contact, shielding: copper
——Insulator: engineering plastics
——Sealing ring: rubber
——Vibration: comply with QC/T413
——Shock: comply with QC/T413
——Endurance: 500 cycles

[Environmental]

——Operating temperature: −40℃～+125℃
——Relative humidity: 95% at 40℃
——Protection degree: IP67
——Salt spray: 48 hours

[Electrical]

——Contact resistance and rating current:

Contact size mm	Rating current A	Applicable wire mm^2
Φ10	200	50
Φ8	150	25～35
4.8*0.8	40	2.5～6
2.8*0.8	16	1～2.5
1.2*0.6	5	0.5

——Rating voltage, withstanding voltage (V) and insulation resistance (MΩ):

Operating environment	Rating voltage	Withstanding voltage	Insulation resistance
Normal	600 AC	3000 AC	⩾5000

Notes: the rating current is related with the connected wire.

Ordering information

Basic series HVIL	−M	2	S	(16A)	U	−00	A	−1
HVIL−high voltage connector, with short circuit								
HV−high voltage connector, without short circuit								
Connector type M−plug F−receptacle								
Contact number The number means the current contact number.								
Contact type P−pin S−socket								
Rating current								
Receptacle mounting type (only receptacle has this part)								
U − dropped receptacle omit − square flange receptacle								
Entry degree (only plug has this part)								
The number means the entry degree.								
Wiring type The letter means the wiring type; it is customized.								
Polarization code Number means polarization, omit means non polarization.								

[Part number example]

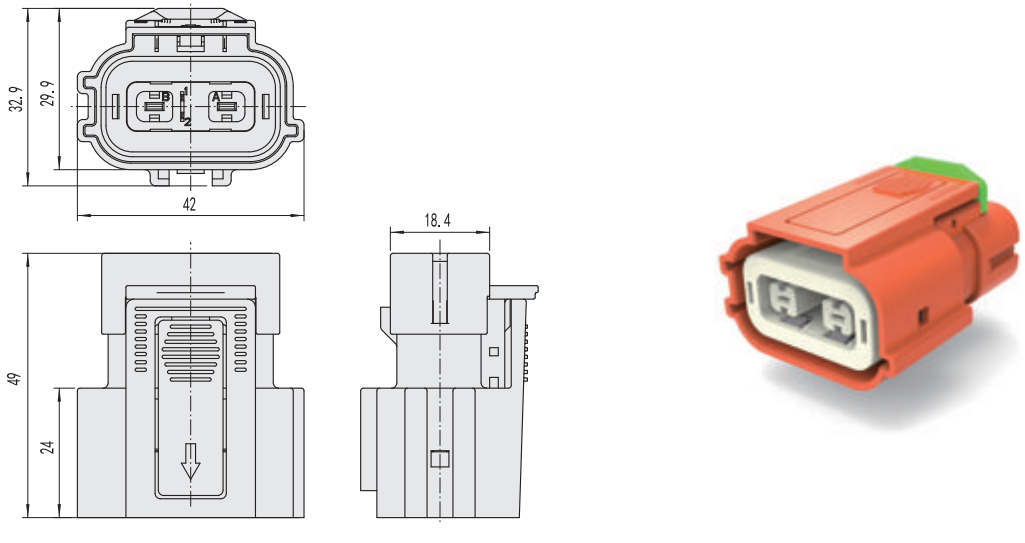
1、HVIL−M2S(16A)−00A−1：High voltage interlock connector, plug, 2 contacts, filled with sockets, rating current 16A, straight entry, applicable cable 2.5 mm² single core wire, polarization code 1

2、HVIL−F2P(16A)−A−1：High voltage interlock connector, square flange receptacle, 2 contacts, filled with pins, rating current 16A, applicable cable 2.5 mm² single core wire, polarization code 1

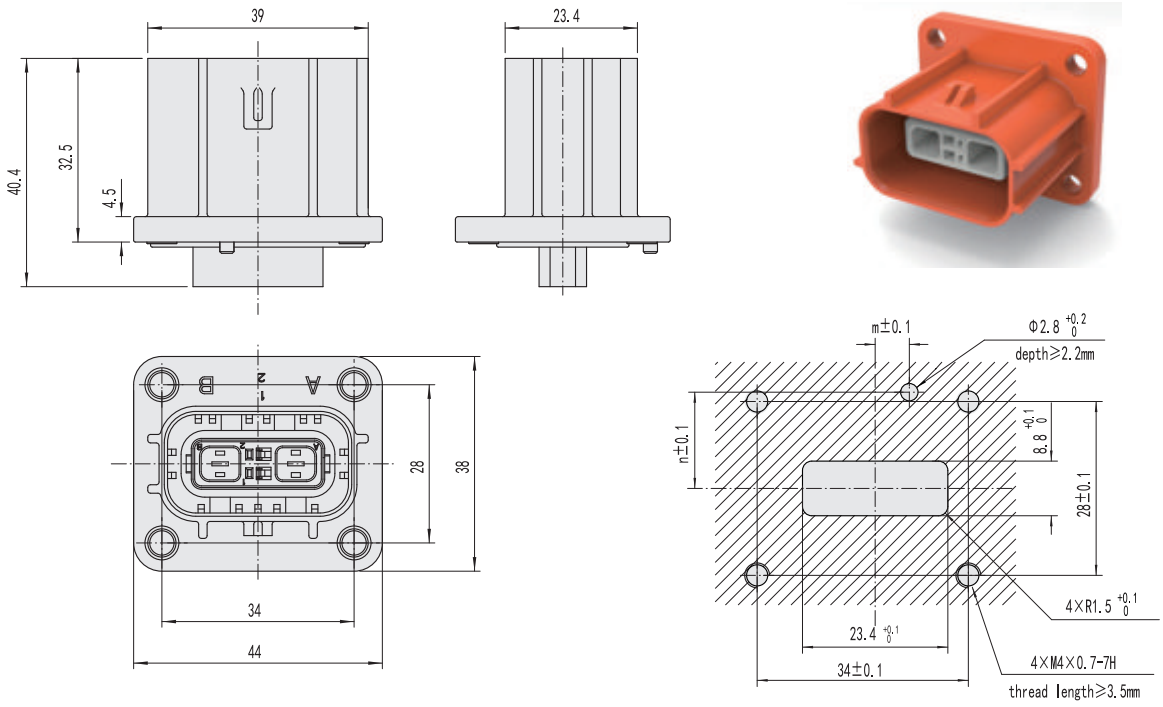
Outline dimensions

[2−core 16A product]

[Plug HVIL−M2S(16A)−00A−1]



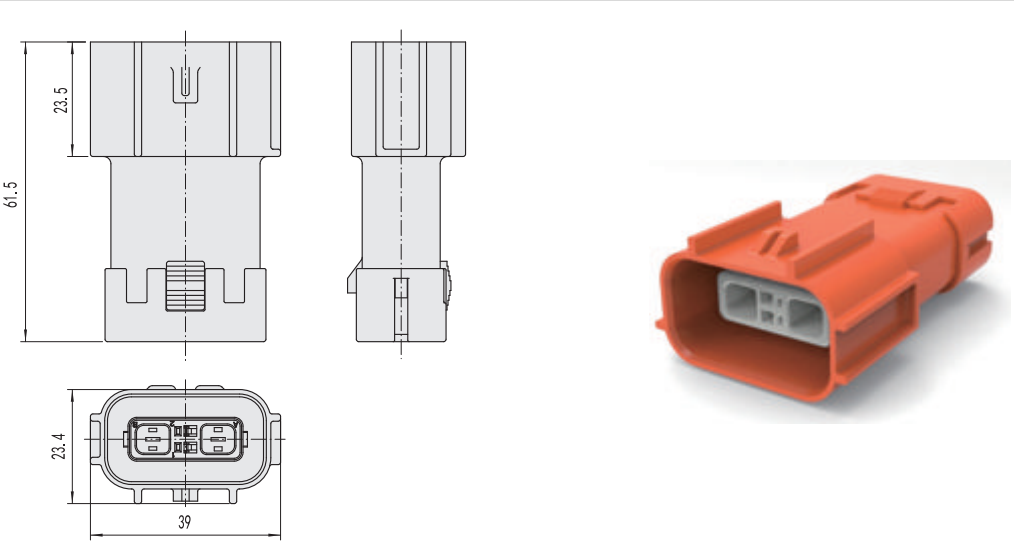
[Square flange receptacle HVIL-F2P(16A)-A-1]



Recommended panel cut-out dimensions

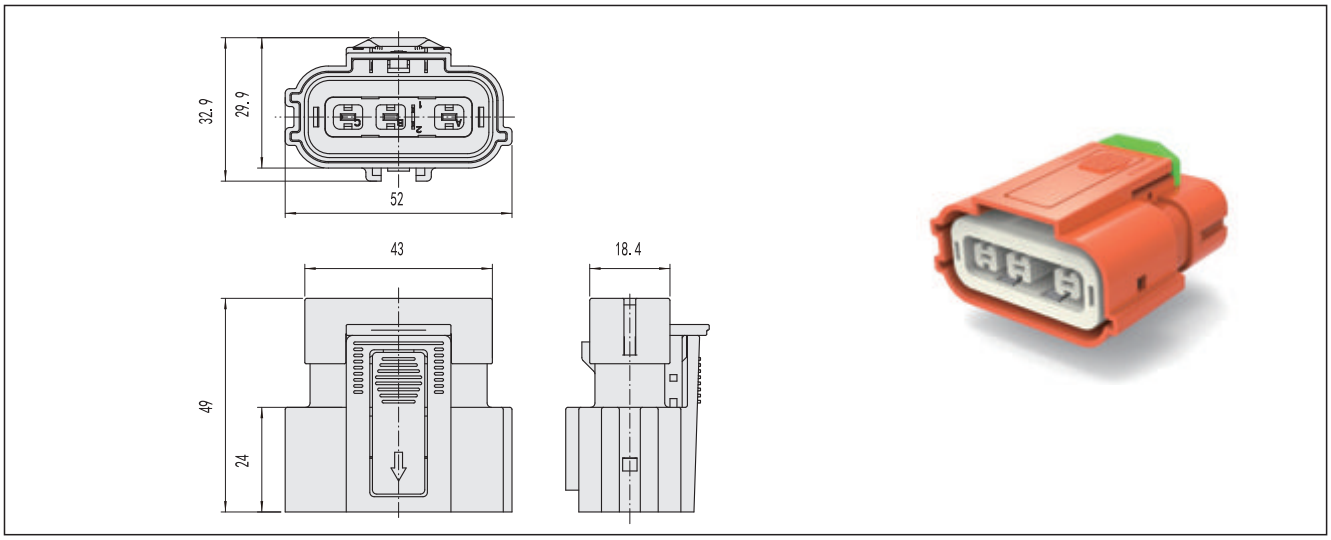
Polarization	m	n
1	5.5	15.5
2	-5.5	15.5
3	5.5	-15.5
4	-5.5	-15.5

[Dropped receptacle HVIL-F2P(16A)-A-1]

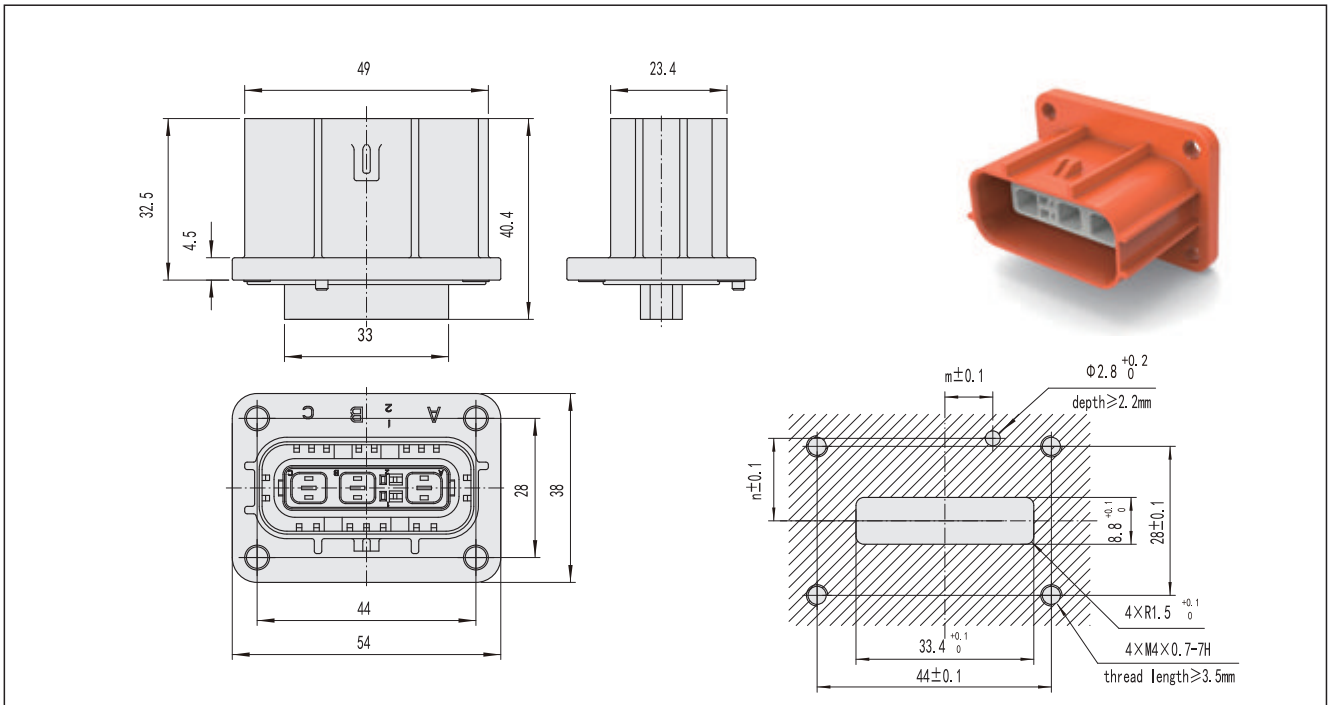


[3-core 16A product]

[Plug HVIL-M3S(16A)-00A-1]



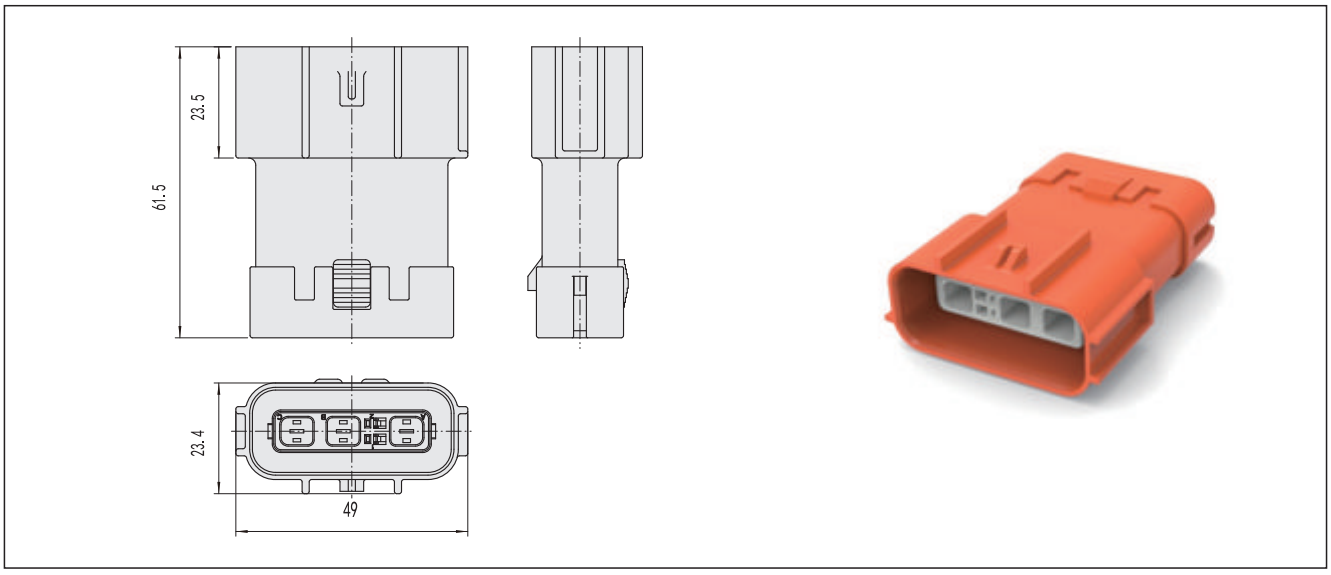
[Square flange receptacle HVIL-F3P(16A)-A-1]



Recommended panel cut-out dimensions

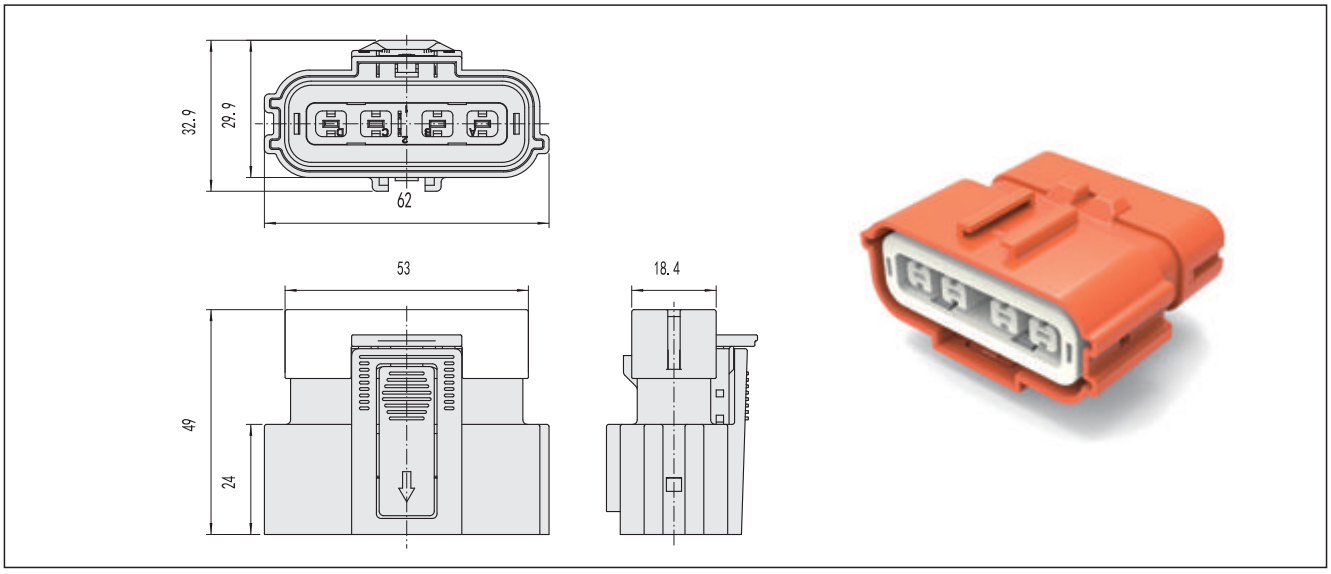
Polarization	m	n
1	9	15.5
2	9	15.5
3	-9	-15.5
4	-9	-15.5

[Dropped receptacle HVIL-F3P(16A)U-A-1]

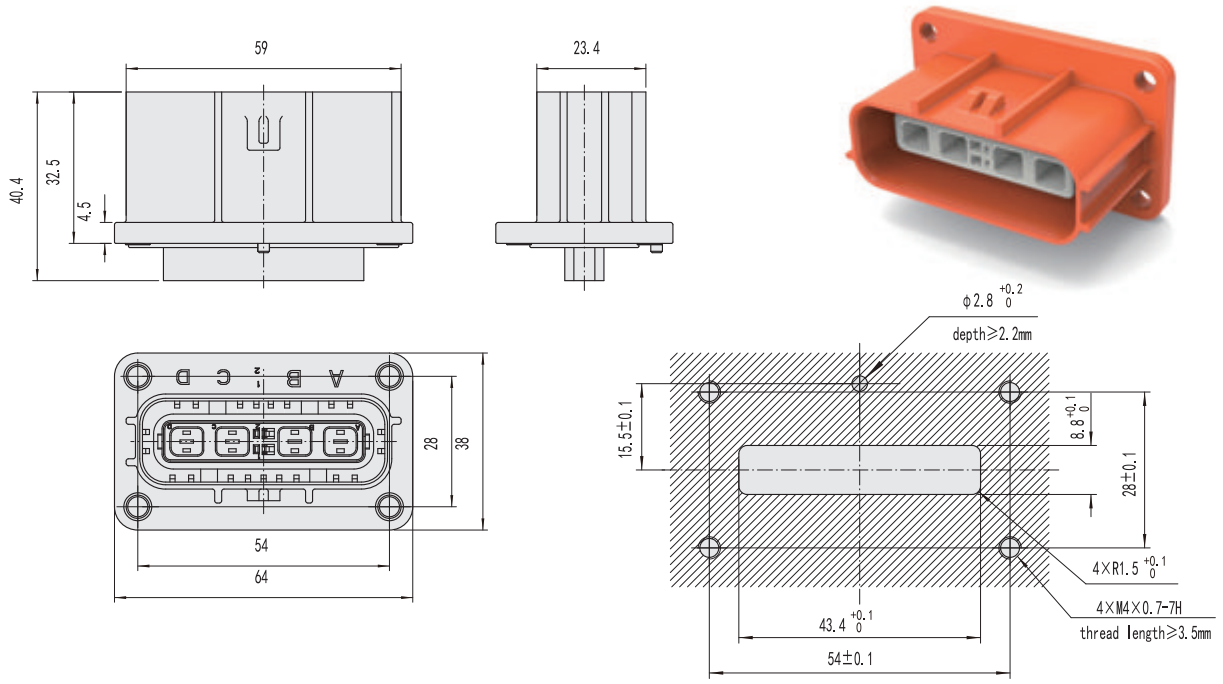


[4-core 16A product]

[Plug HVIL-M4S(16A)-00A-1]



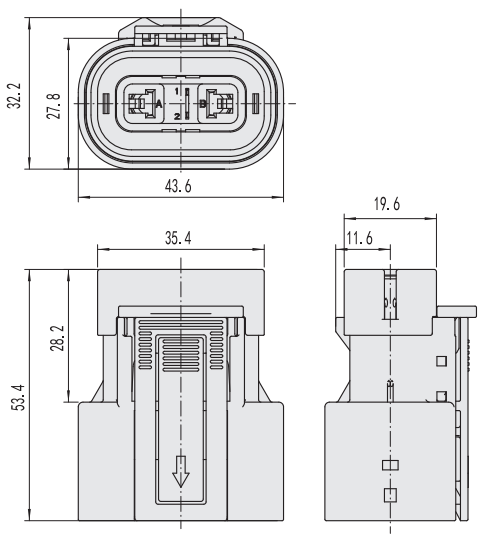
[Receptacle HVIL-F4P(16A)-A-1]



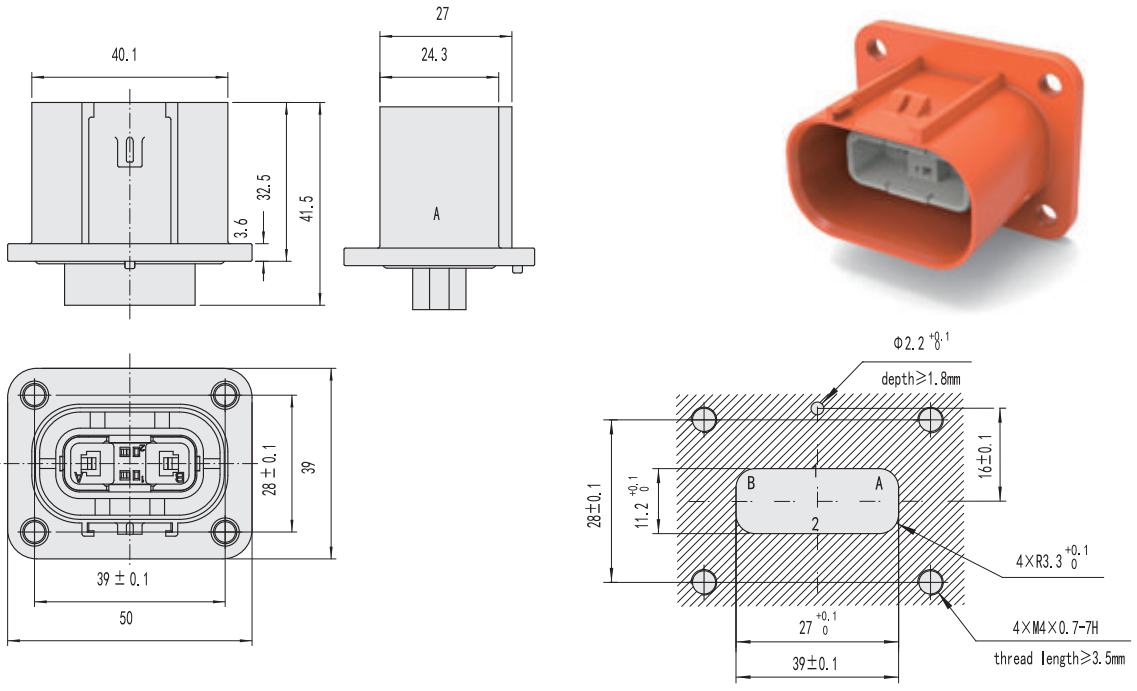
Recommended panel cut-out dimensions (Receptacle HVIL-F4P(16A)-00A-1)

[2-core 40A product]

[Plug HVIL-M2S(40A)-00A]



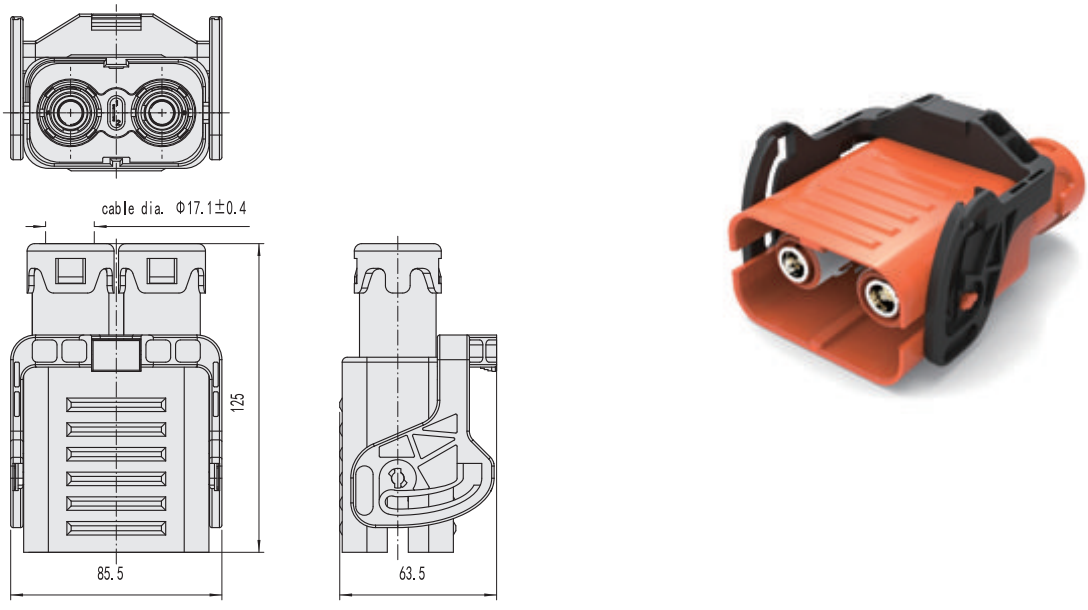
[Receptacle HVIL-F2P(40A)-A]



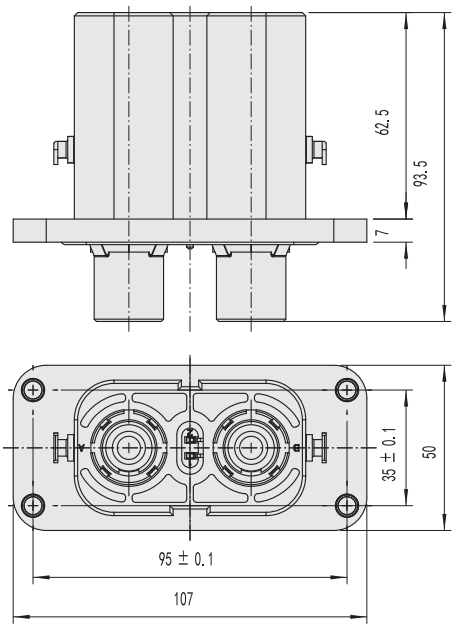
Recommended panel cut-out dimensions

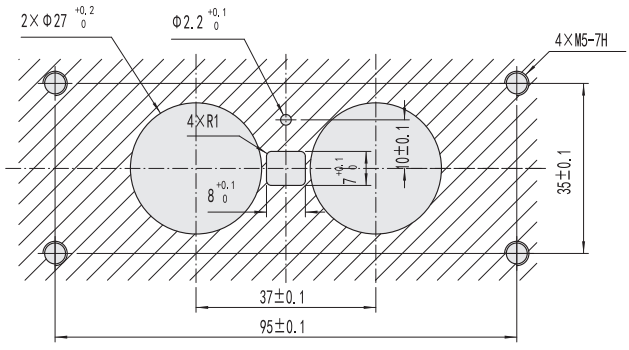
[2-core 200A product]

[Plug HVIL-M2S(200A)-00]



[Square flange receptacle HVIL-F2P(200A)]

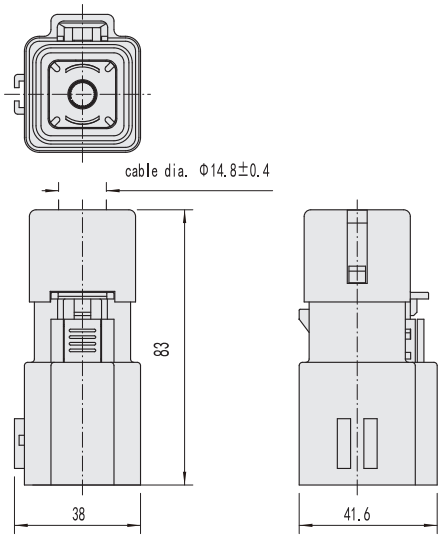




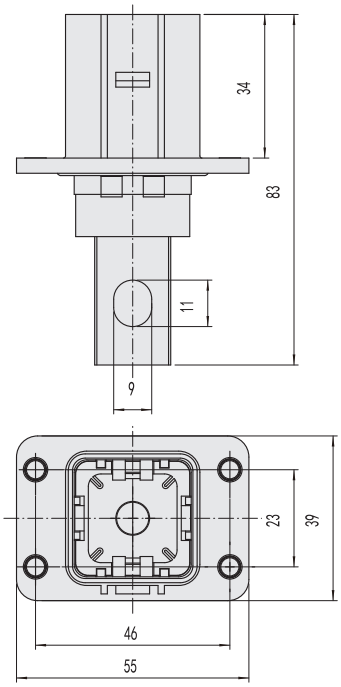
Recommended panel cut-out dimensions

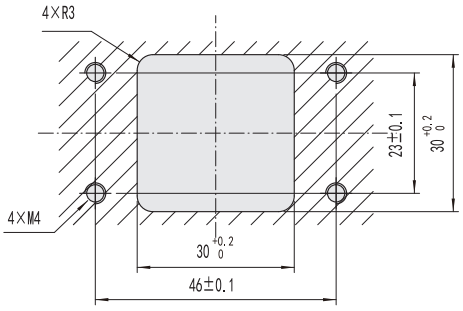
[1-core 150A product (non interlock signal)]

[Plug HV-M1S(150A)-00]



[Square flange receptacle HVIL-F1P(150A)]

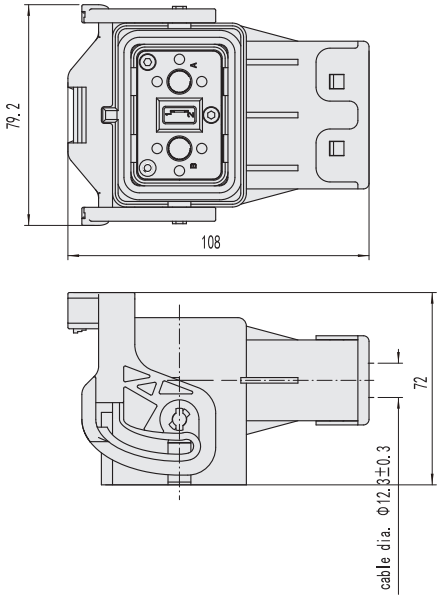




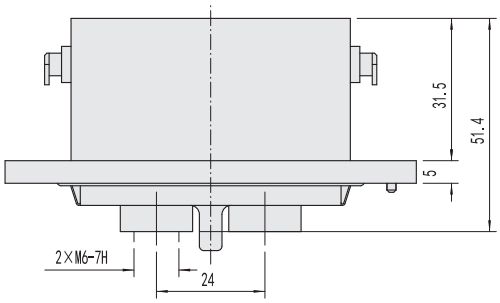
Recommended panel cut-out dimensions

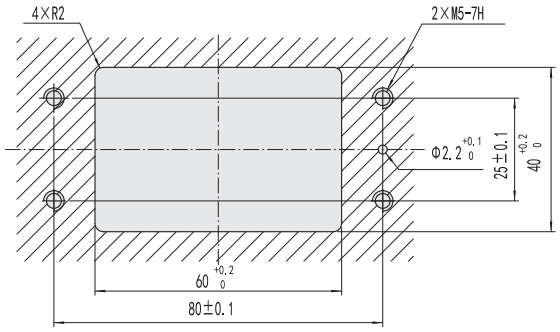
[2-core 150A product (elbow entry)]

[Plug HVIL-M2S(150A)-90]



[Square flange receptacle HVIL-F2P(150A)]

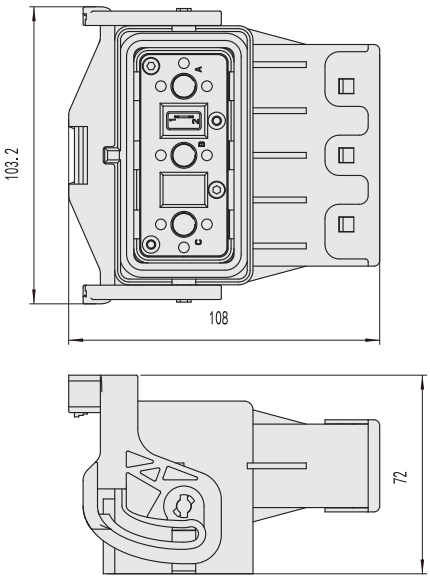




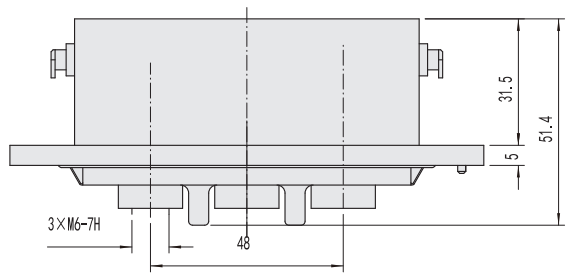
Recommended panel cut-out dimensions

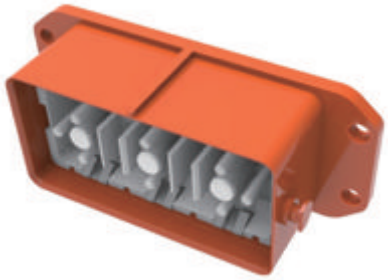
[3-core 150A product (elbow entry)]

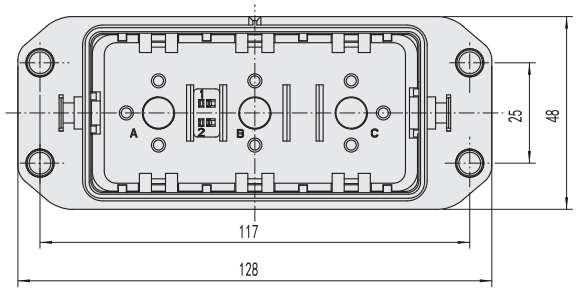
[Plug HVIL-M3S(150A)-90]

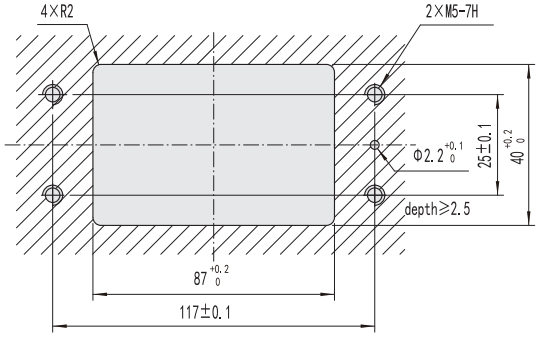


[Square flange receptacle HVIL-F3P(150A)]





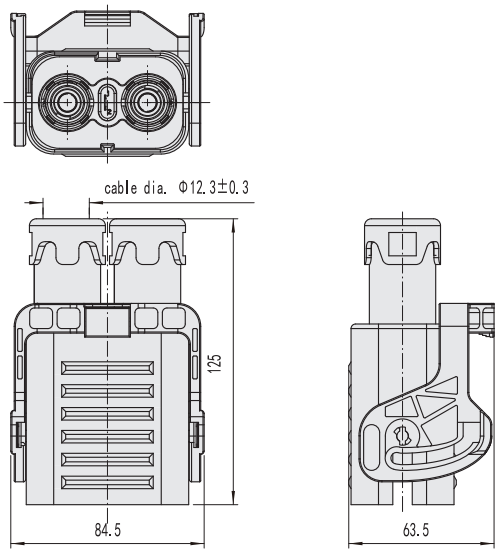




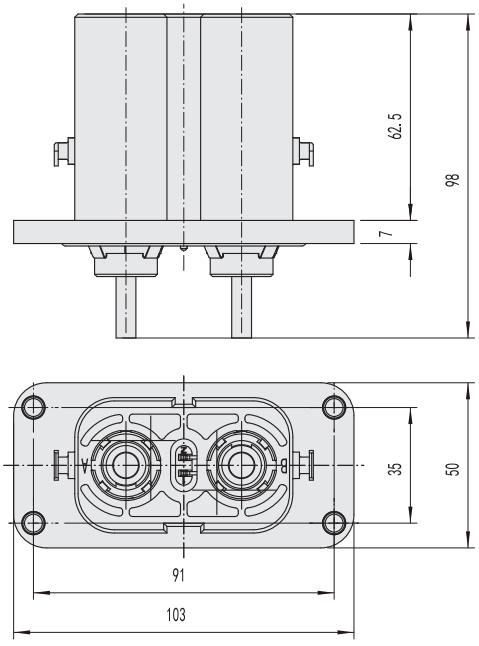
Recommended panel cut-out dimensions

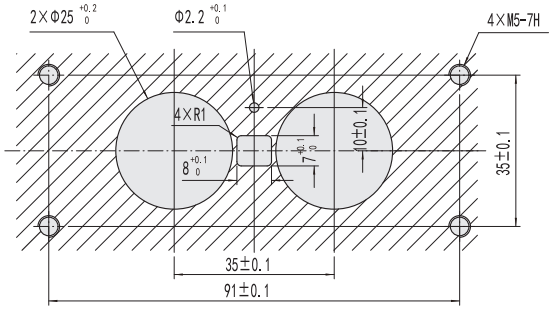
[2-core 150A product]

[Plug HVIL-M2S(150A)-00B]



[Receptacle HVIL-F2P(150A)-B]

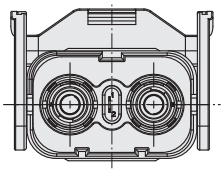


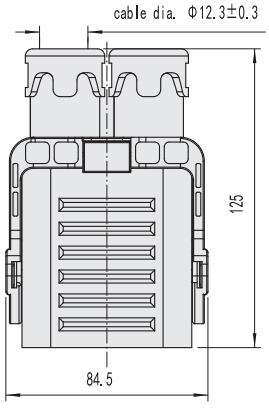


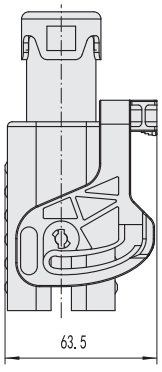
Recommended panel cut-out dimensions

[2-core 150A product]

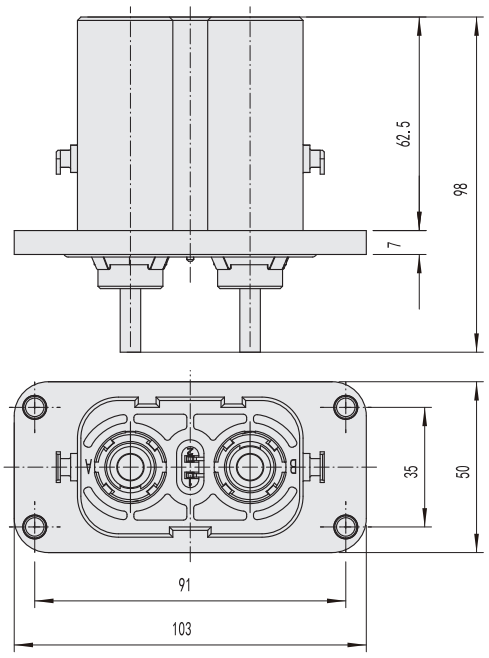
[Plug HVIL-M2S(150A)-00B-1]

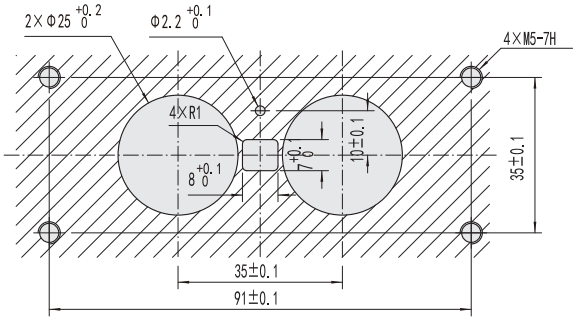






[Receptacle HVIL-F2P(150A)-B-1]





Recommended panel cut-out dimensions

BPC10/BPC50 trunk battery connector

Brief introduction

- Termination type: signal and auxiliary: crimping; power and grounding: thread coupling
- Enterprise standard: Q/21E1660

Application

The product is push-pull in-line connector without locking function which is achieved by the locking mechanism between equipments. This series is used in the current transmission between battery box and vehicle side, battery wire and charging side.

Operating environment

The product is applied in vibration environment in EV driving process.

Main technical characteristics

[Mechanical]

——Shell: PBT, flame retardant rating: UL94-V0
——Insulator: PBT, flame retardant rating: UL94-V0
——Contact: copper alloy, gold plating
——Vibration: 10～500Hz
——Endurance: 10000 cycles

[Environmental]

——Operating temperature: -40℃～+80℃
——Salt spray: 240 hours

[Electeical]

——Rating current:
Signal 2A, auxiliary 20A, power 400A, grounding 250A
——Contact resistance:
Signal and auxiliary ≤0.75 mΩ, power and grounding ≤0.2 mΩ
——Insulation resistance:
≥100MΩ (normal temperature, after grounding)
——Withstanding voltage:
between power and grounding 3000V AC
Between signal cavities: 500VAC

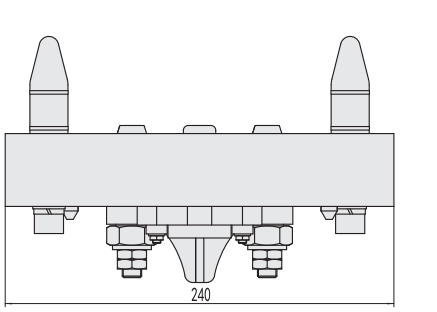
Note: BPC10 series are developed for Xuchang Relay Company, not for promotion.

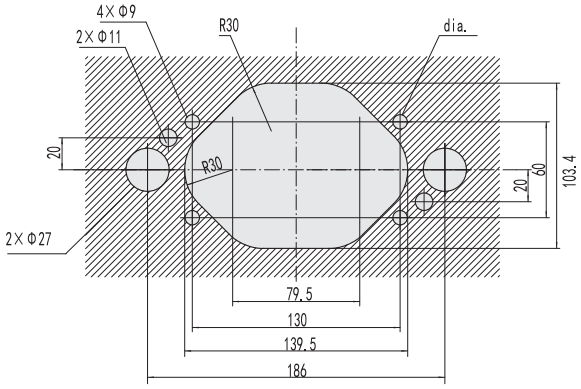
Ordering information

Basic series		BPC	50/10	-S-	400A	/	750V
Connector type	10						
Contact type	S-socket P-pin						
Rating current	400A						
Separator	/						
Rating voltage	750V						

Outline dimensions

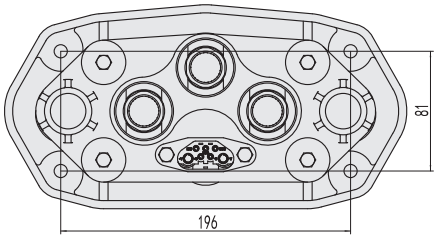
[BPC10-P-400A/750V (plug)]

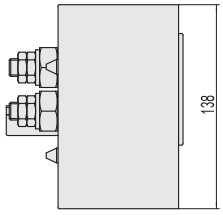


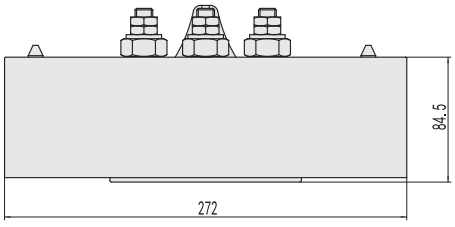


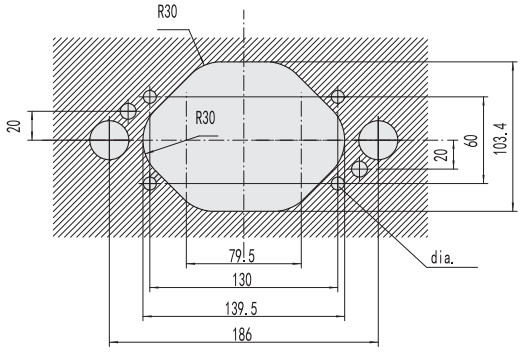
Recommended panel cut-out dimensions

[BPC10-S-400A/750V (receptacle)]



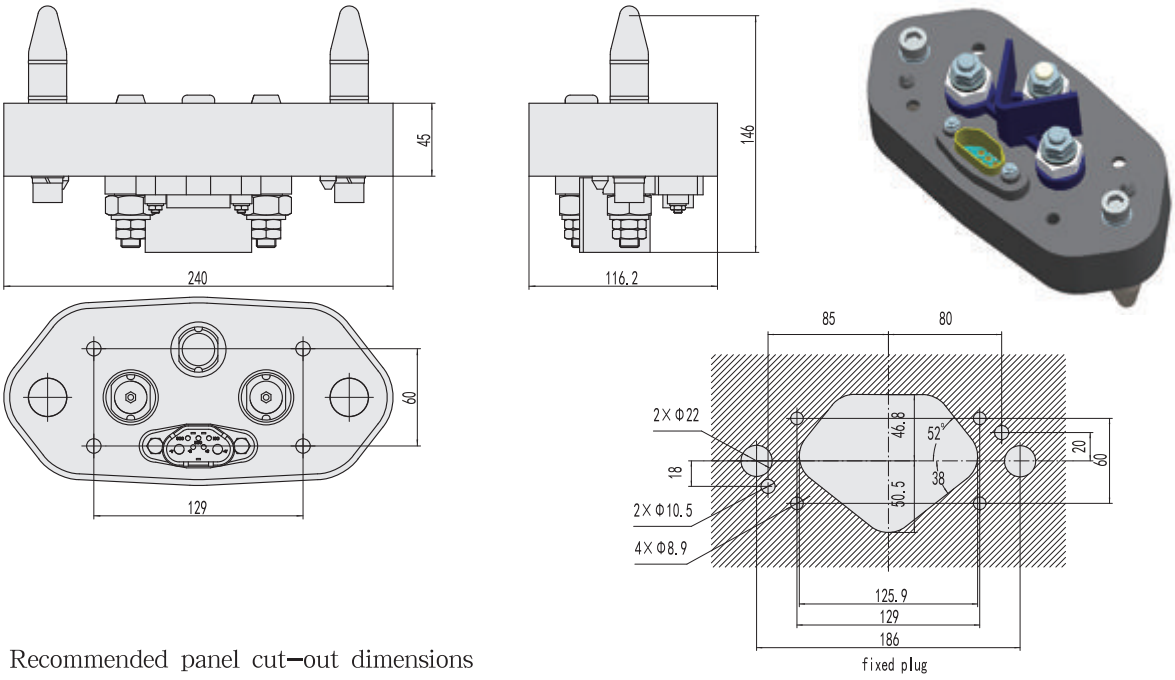






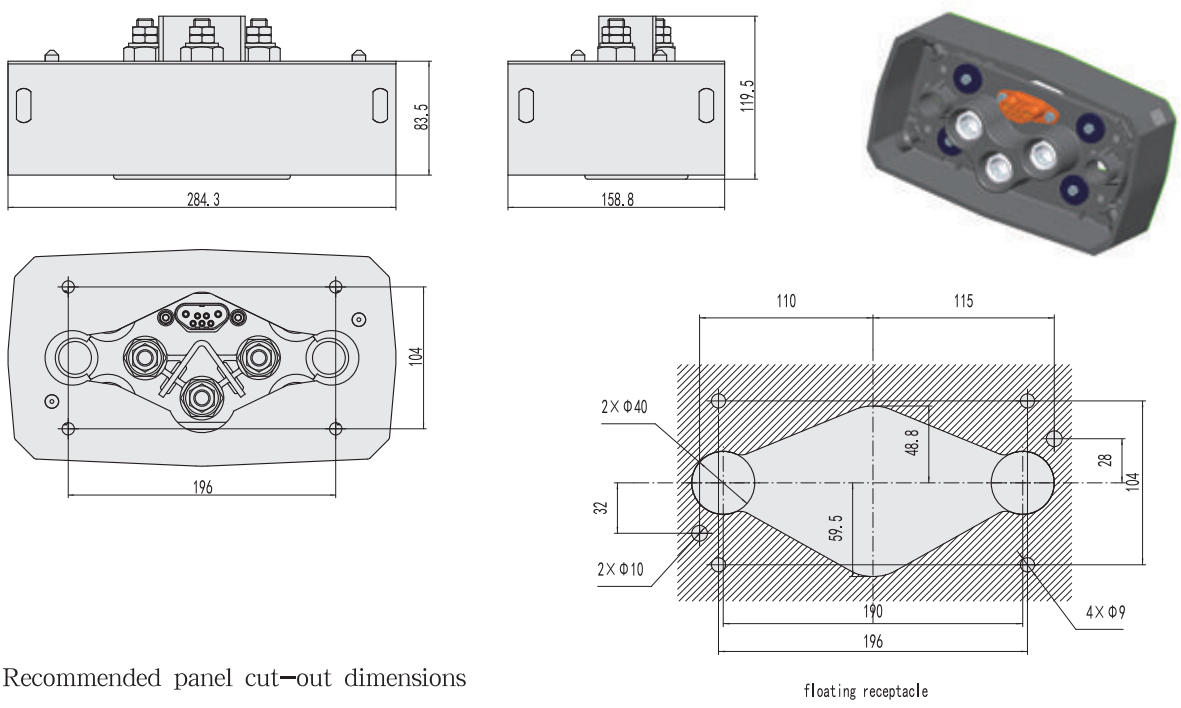
Recommended panel cut-out dimensions

[BPC50–P–400A/750V（plug）]



Recommended panel cut–out dimensions

[BPC50–S–400A/750V（receptacle）]



Recommended panel cut–out dimensions

BPC20 trunk battery connector

Brief introduction

- Crimping termination
- Enterprise standard: Q/21E1660

Application

The product is push-pull in-line connector without locking function which is achieved by the locking mechanism between equipments. This series is used in the current transmission between battery box and vehicle side, battery wire and charging side.

Operating environment

The product is applied in vibration environment in EV driving process.

Main technical characteristics

[Mechanical]

——Shell: PBT, flame retardant rating: UL94-V0
——Insulator: PBT, flame retardant rating: UL94-V0
——Contact: copper alloy, gold plating
——Vibration: 10～500Hz
——Endurance: 10000 cycles

[Environmental]

——Operating temperature: -40℃～+80℃
——Salt spray: 240 hours

[Electrical]

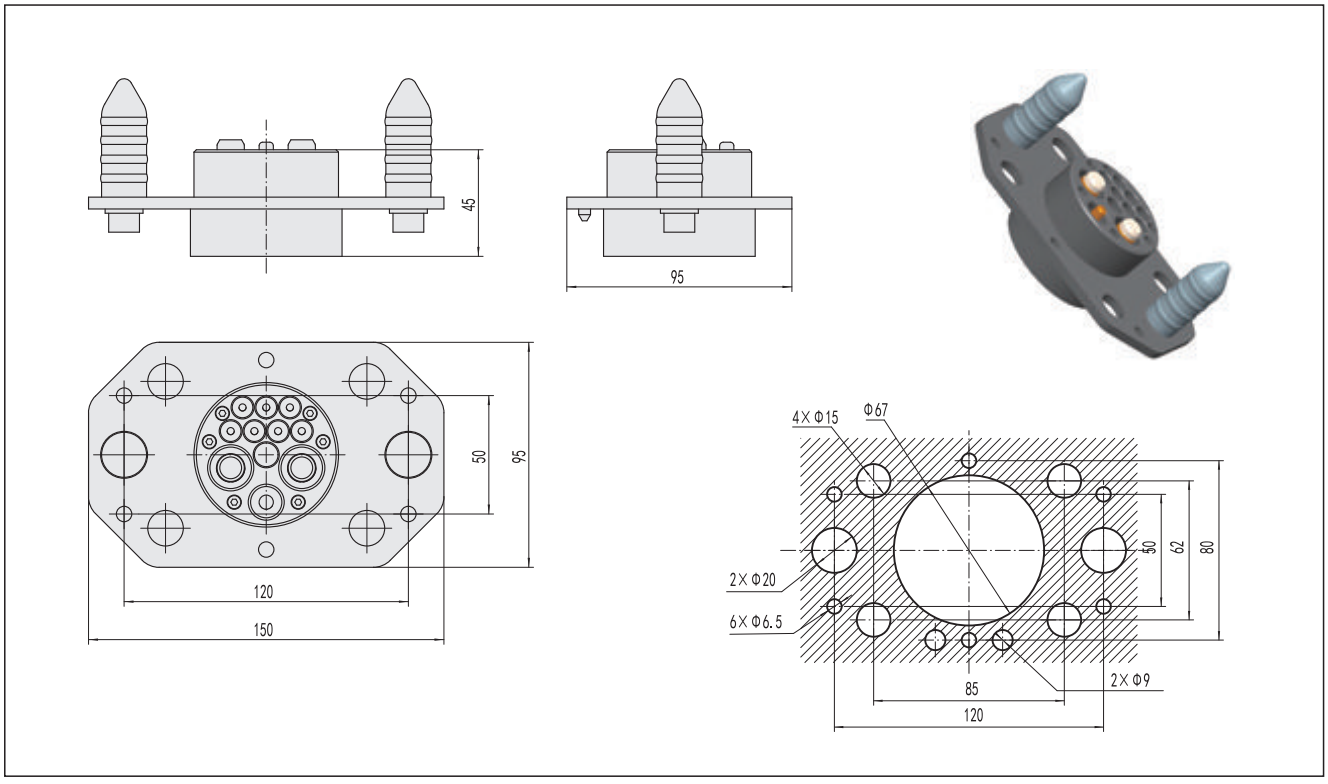
——Rating current:
Signal 2A, auxiliary 20A, power 200A, grounding 80A
——Contact resistance:
Signal and auxiliary≤0.75 mΩ,
power and grounding ≤0.5 mΩ
——Insulation resistance:
≥100MΩ(normal temperature, after wiring)
——Withstanding voltage:
between power and grounding 3000V AC
Between signal cavities: 500VAC

Ordering information

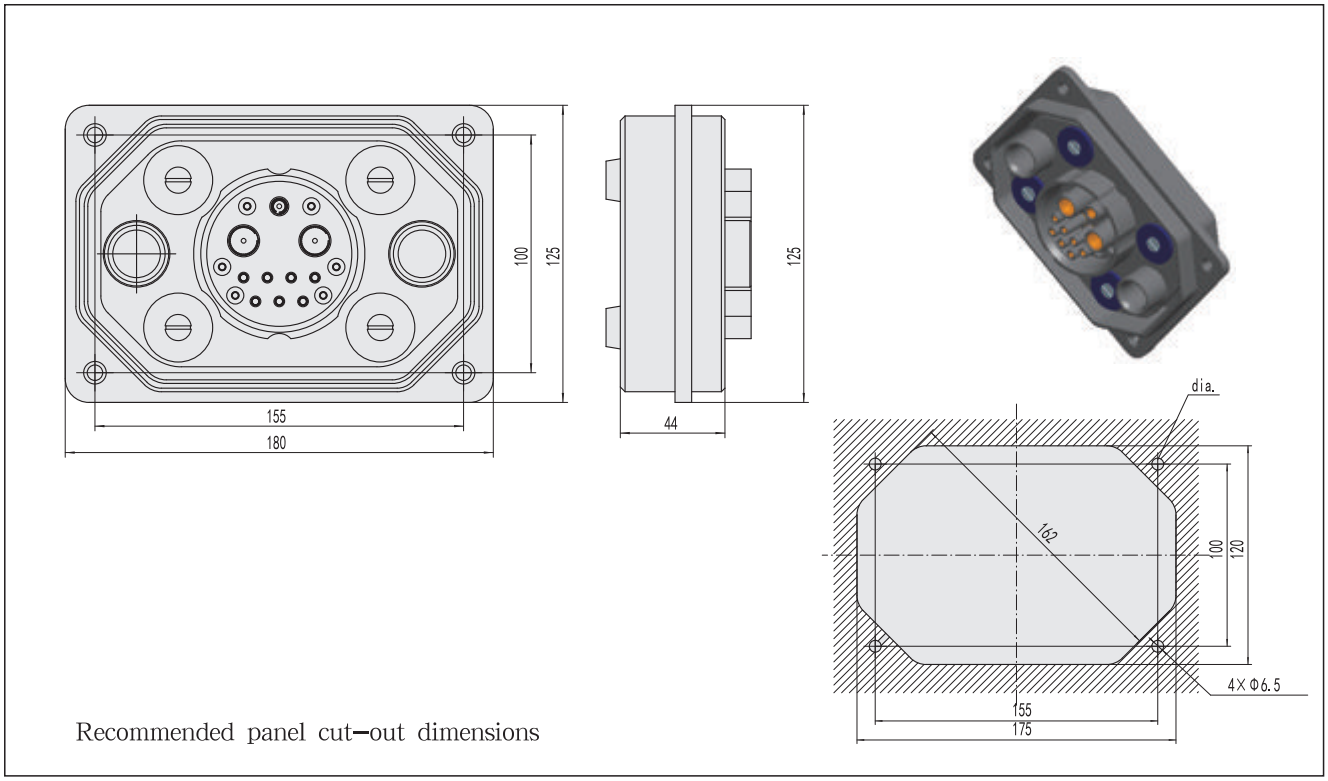
Basic series		BPC	20	-S-	200A	/	750V
Connector type	20						
Contact type	S-socket P-pin						
Rating current	200A						
Separator	/						
Rating voltage	750V						

Outline dimensions

[BPC20–P–200A/750V（plug）]



[BPC20–S–200A/750V（receptacle）]



Recommended panel cut–out dimensions

BPC30 undercarriage battery connector

Brief introduction

- Crimping termination, vehicle mounting receptacle is pin & socket type
- Enterprise standard: Q/21E1660

Application

The product is push-pull in-line connector without locking function which is achieved by the locking mechanism between equipments. This series is used in the current transmission between battery box and vehicle side, battery wire and charging side.

Operating environment

The product is applied in vibration environment in EV driving process.

Main technical characteristics

[Mechanical]

——Shell: aluminum substrate, nickel plating
——Insulator: PBT, flame retardant rating: UL94-V0
——Contact: copper alloy, gold plating
——Vibration: 10～500Hz
——Endurance: 10000 cycles

[Environmental]

——Operating temperature: -40℃～+80℃
——Salt spray: 96 hours

[Electrical]

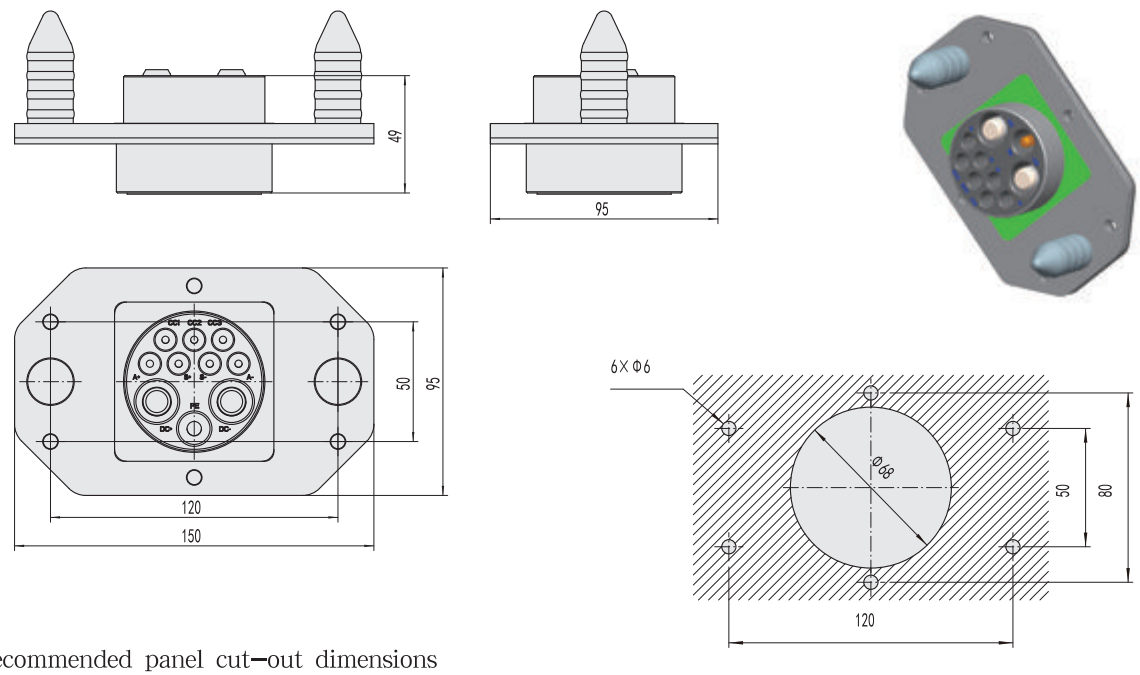
——Rating current:
Signal 2A, auxiliary 20A, power 250A, grounding 80A
——Contact resistance:
Signal and auxiliary≤0.75 mΩ,
power and grounding≤0.5 mΩ
——Insulation resistance:
≥100MΩ(normal temperature, after wiring)
——Withstanding voltage:
between power and grounding 3000V AC
Between signal cavities: 500VAC

Ordering information

Basic series	BPC	30	-S-	250A	/	750V
Connector type						
Contact type S-socket P-pin						
Rating current						
Separator						
Rating voltage						

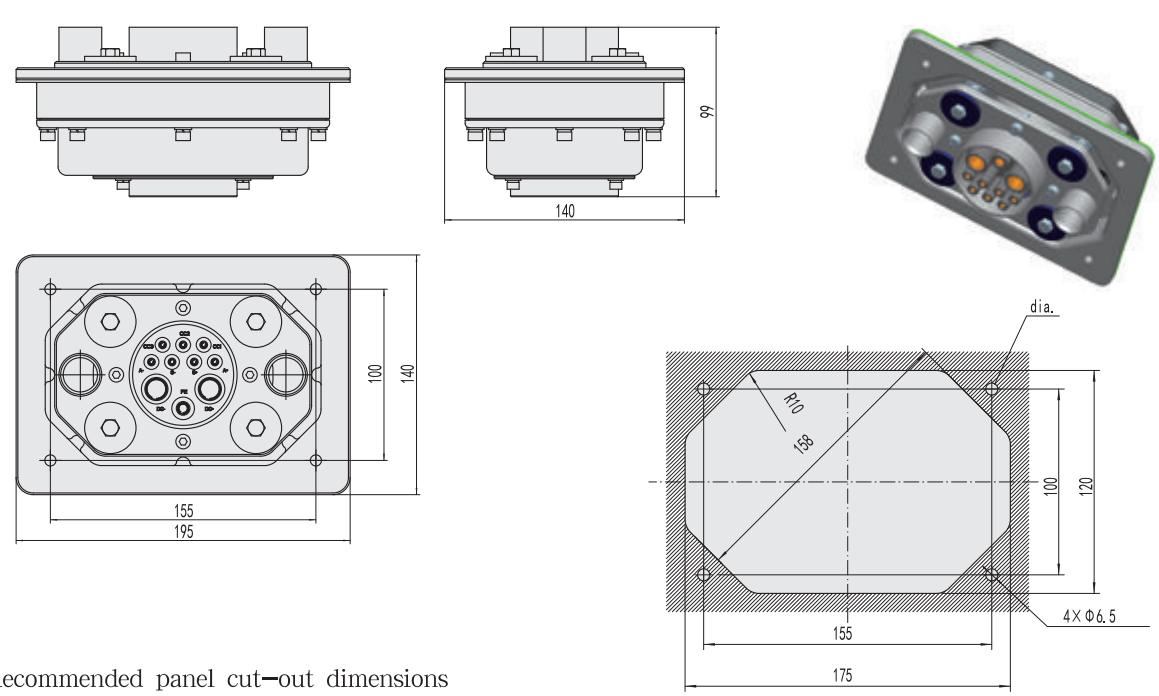
Outline dimensions

[BPC30–P–250A/750V（Battery box plug）]



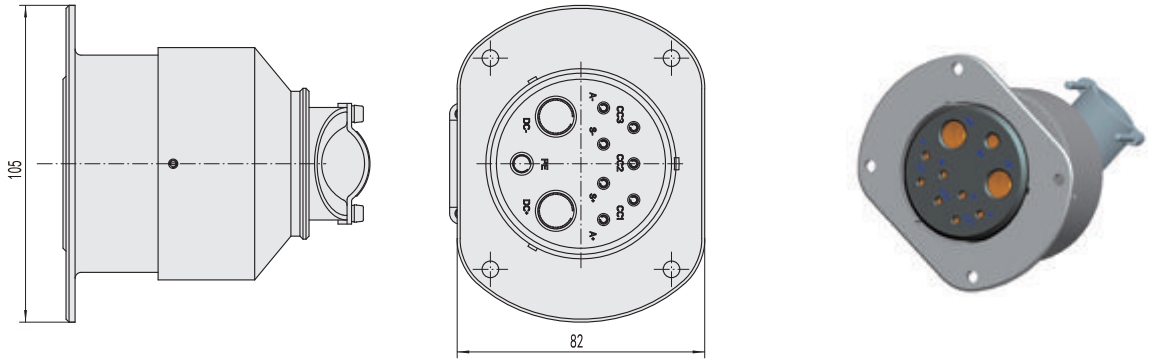
Recommended panel cut–out dimensions

[BPC30–S–250A/750V–CR（bracket carrier receptacle）]

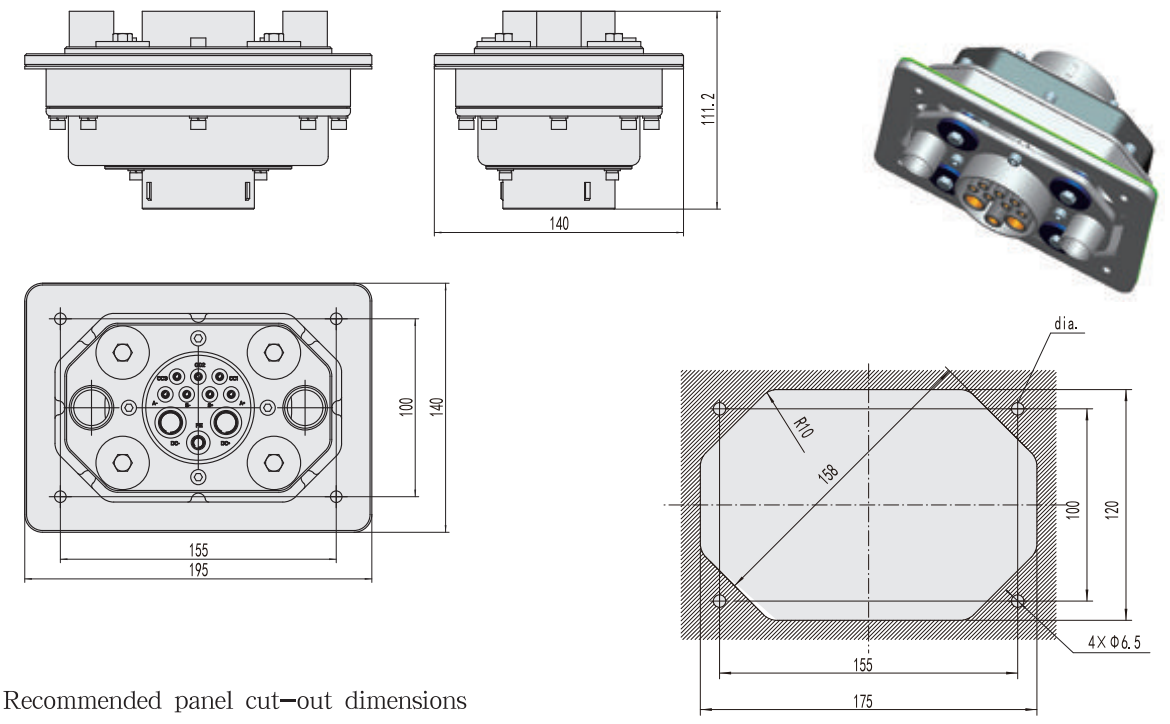


Recommended panel cut–out dimensions

[BPC30-P-250A/750V-EV (vehicle mounting adapter)]



[BPC30-S-250A/750V-EV (vehicle mounting receptacle)]



Recommended panel cut-out dimensions

BPA20 trunk battery connector

Brief introduction

- Crimping termination
- Enterprise standard：Q/21E1660

Application

The product is push-pull in-line connector without locking function which is achieved by the locking mechanism between equipments. This series is used in the current transmission between battery box and vehicle side, battery wire and charging side.

Operating environment

The product is applied in vibration environment in EV driving process.

Main technical characteristics

[Mechanical]

——Shell：black painting on aluminum base metal
——Insulator：PT-610, flame retardant rating：UL94-V0
——Contact：copper alloy, gold plating
——Vibration：10～500Hz
——Endurance：10000 cycles

[Environmental]

——Operating temperature：-40℃～+80℃
——Salt spray：96 hours

[Electrical]

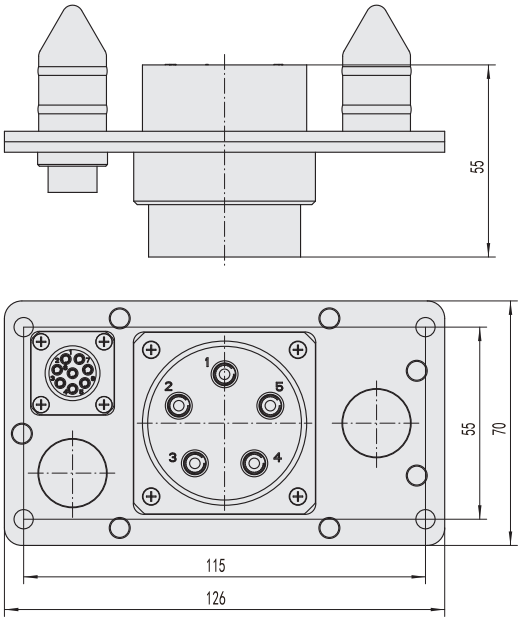
——Rating current：signal 2A, power 80A
——Contact resistance：
Signal and auxiliary≤0.4 mΩ,
power and grounding ≤5 mΩ
——Insulation resistance：
≥100MΩ (normal temperature, after wiring)
——Withstanding voltage：
between power supplies 3000V AC
Between signal cavities：400VAC

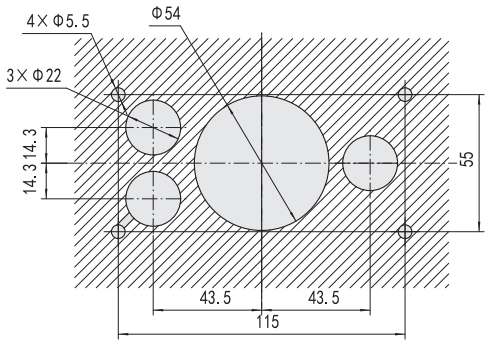
Ordering information

Basic series		BPA	20	-S-	160A	/	750V
Connector type							
Contact type	S-socket P-pin						
Rating current							
Separator							
Rating voltage							

Outline dimensions

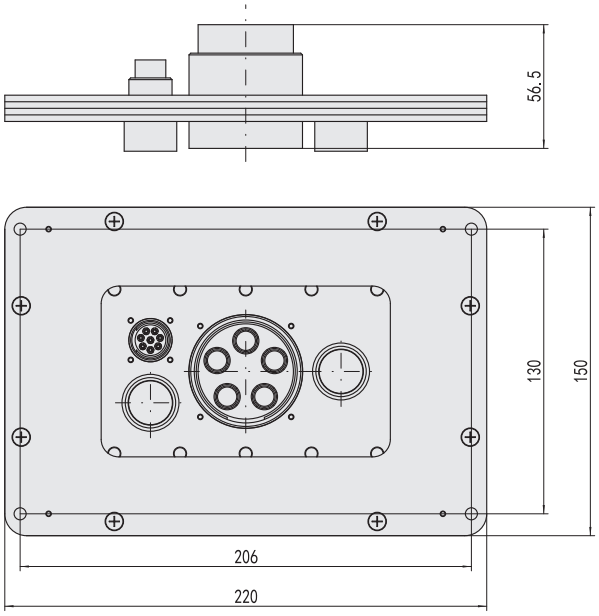
[Plug BPA20-P-160A/750V]

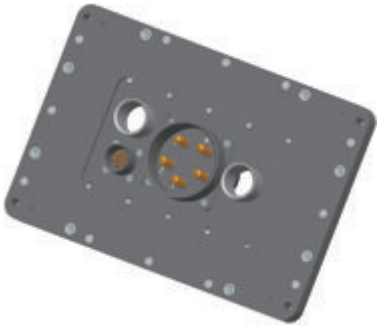


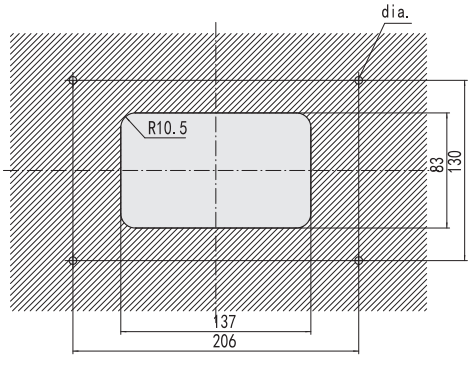


Recommended panel cut-out dimensions

[BPA20-S-160A/750V (receptacle)]







Recommended panel cut-out dimensions

Energy storage wire harness and receptacle

Brief introduction

- The product is consisted of sealed socket wire harness and circular flange receptacle. It is applied in series parallel connection in battery box in energy storage project.
- Protection degree: IP54

Application

The battery inlet receptacle should be mounted on the battery box panel through jam nut mounting. It transmits signals through wire connection in moulds and cable mating in battery group.

Operating environment

This product is not suitable for the environment that has strong shock and vibration. The sealed socket can not be mated and removed frequently.

Main technical characteristics

——Operating temperature: −40℃ ~ +85℃,

——Sealed socket can be crimped with 25~50mm² cables.

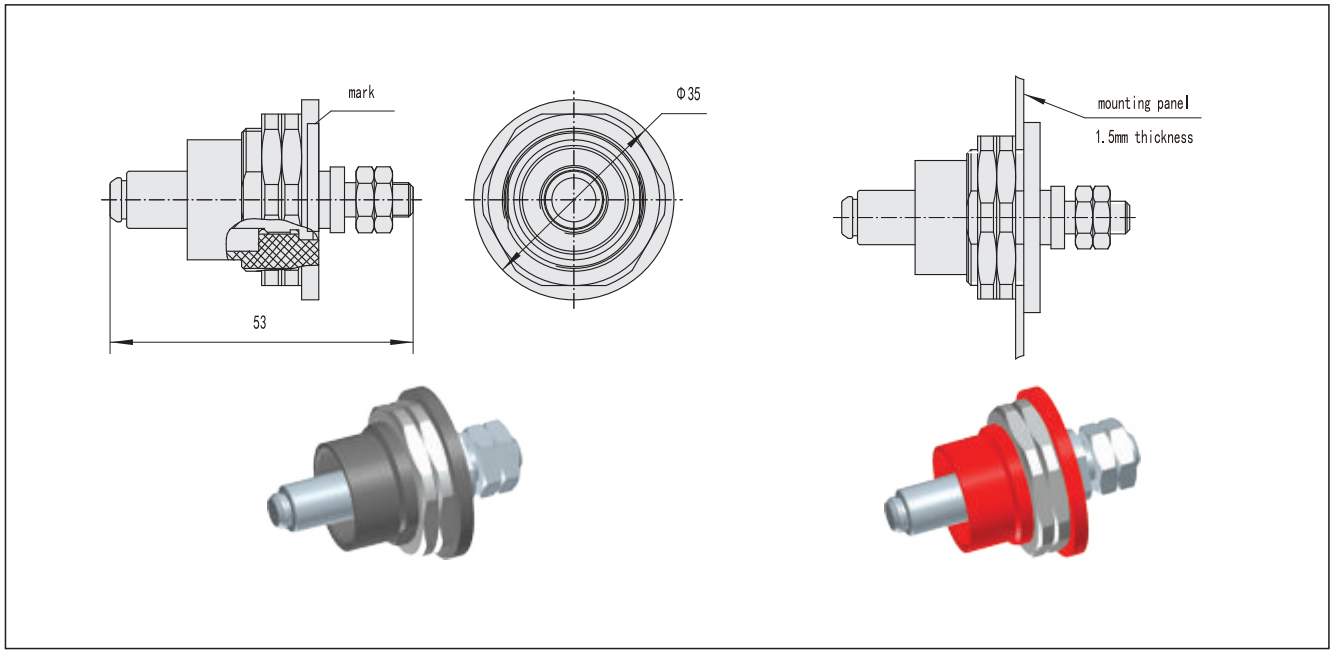
——Current: 100A~200A; circular flange receptacle has two colors: red and black, the different color of two poles makes the product anti mis−mating.

Outline dimensions

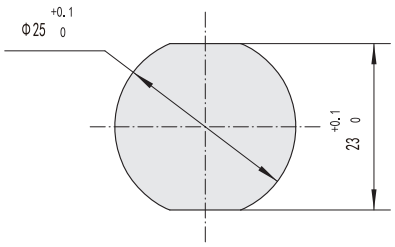
[Circular flange receptacle]

CT50B−2501L1J1M8(black/negative pole)

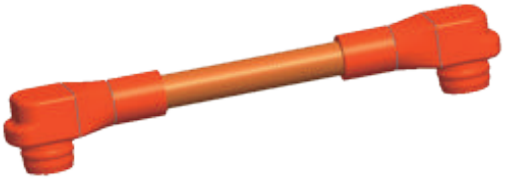
CT50B−2501L1J2M8(red/positive pole)



[Recommended panel cut-out dimensions]



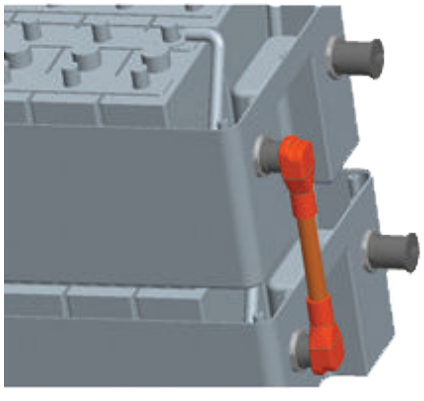
[Connection wire harness in moulds]



[Positive/negative wire harness in battery group]

[Part number example]

This battery inlet receptacle should be mounted on the battery box panel through jam nut mounting. It transmits signals through wire connection in moulds and cable mating in battery group. See below picture:



Wire harness for vehicle mounting battery group (sealed terminal wire harness)

Brief introduction

- The product crimps the cable with the terminals and then seals it; the sealing elastomer has two colors: red and black.
- The positive pole and the negative pole both have anti mis-mating function.

Application

Applicable for series parallel connection in battery group of EV.

Main technical characteristics

——Operating temperature: −40℃ ~ +85℃

——The terminals can be crimped with 25~50mm² cables, current: 100A~200A

CT34E series push & pull heavy current connector

Brief introduction

- Plug termination: crimping; receptacle termination: threaded coupling, copper bar coupling, crimping
- Five colors for identification, loaded with pin or socket for anti mis-mating
- Reliable crown ribbon socket for soft mating and unmating, low contact resistance
- Straight push & pull structure, quick coupling
- Standard: Q/21EJ1032-2009
- Protection degree: the receptacle mounting side and mating surface meet IP67

Application

Applicable for current transmission in high voltage part of electrical vehicle.

Operating environment

The product is applied for electrical connection in damp environment within EV and rainy environment.

Main technical characteristics

[Mechanical]

——Shell: aluminum alloy, oxidized, nickel plating
——Insulator: PBT
——Grommet and seal: silicon rubber
——Contact: power contact, silver plating
——Vibration: frequency: 10～2000Hz, acceleration: 196m/s²
——Shock: acceleration 980m/s²
——Endurance: 500 cycles

[Environmental]

——Operating temperature: −55℃ ～ +110℃
——Relative humidity: 95% at 40℃
——Protection degree: IP67 (this is secured by customers during installation)
——Salt spray: 48 hours

[Electrical]

——Rating voltage, withstanding voltage (V) and insulator resistance (MΩ):

Operating environment	Rating voltage	Withstanding voltage	Insulator resistance
Normal temperature	600AC	2500 AC	⩾5000

——Contact resistance and rating current:

Contact size mm	Contact resistance mΩ	Rating current A	Wire section mm²
ϕ8.0	0.2	80	20
		130	35

Power system connector

Ordering information

Basic series	CT34	E	—1	Z	J	(BK)	—01
Power system	E—130A series						
Contact number	1 contact						
Connector type	T — plug Z — receptacle						
Contact type	J - male K - female						
Shell color	(BK)—black (GR)—green (BL)— blue (RE)—red (YE)— yellow						
Alternative code	basic type—omit 5 keyway type—01						

Part number	Color for identification	Mechanism for identification	Reversed installation of pin & socket	Modified code
CT34E basic type	Yes	No	Yes	A001、A002 · · · ·
CT34E—01 basic type	Yes	Yes	Yes	A、B、C、D · · ·

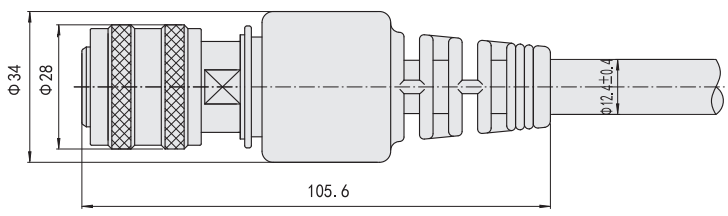
[Part number example]

CT34E—1TJ(BK)

CT34E series push & pull plug, one contact, filled with pin, black shell.

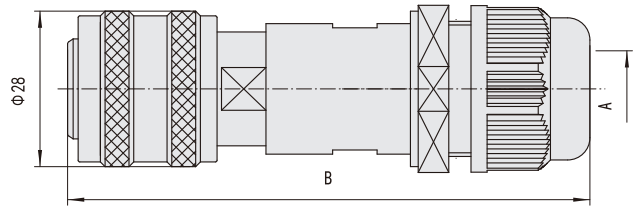
Ordering information

[Straight sealing plug (cable diameter and length are customized)]



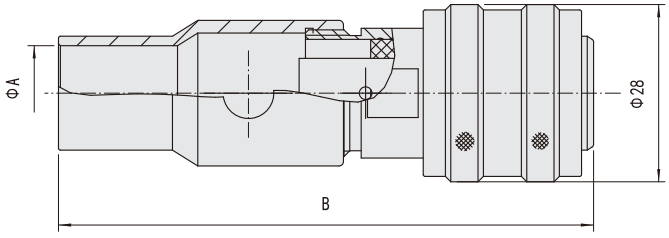
Part number	Applicable wire	Anti mis—mating	Remarks
CT34E—1TJ/K(XX)A001	25	Color	Contact the engineer for cable harness type
CT34E—1TJ/K(XX)A002	35	Color	Contact the engineer for cable harness type
CT34E—1TJ/K(XX)—01	35	Color, keyway	Contact the engineer for cable harness type

[Straight plug CT34E-1TK/J(XX)A00X]



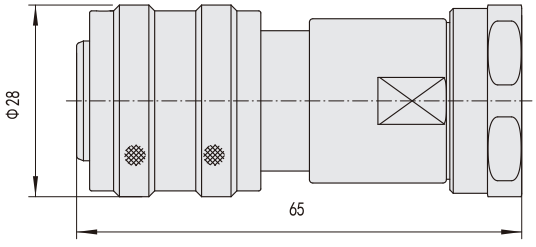
Part number	Lead-out dia. A	B	Crimp bucket dia.	Anti mis-mating
CT34E-1TK/J(XX)A003	φ8.5~φ14	94	φ8.6	Color
CT34E-1TK/J(XX)A009	φ6~φ12	83.4	φ6.5	Color

[Straight plug CT34E-1TK(XX)A010]



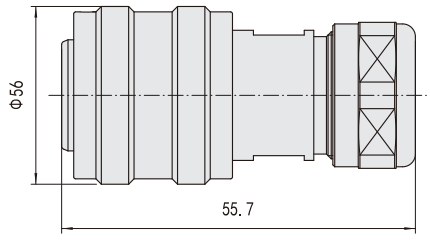
Part number	Lead-out dia.	B	Crimp bucket dia.	Anti mis-mating
CT34E-1TK(XX)A010	φ15	84.5	φ8.6	Color
CT34E-1TK(XX)-01U	φ13	71	φ8.6	Color, keyway

[Straight plug CT34E-1TK/J(XX)-01M]



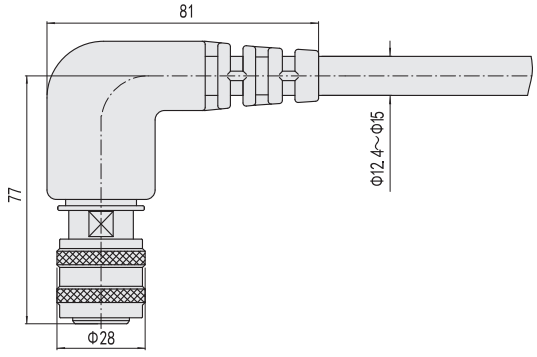
Part number	Lead-out dia.	Crimp bucket dia.	Anti mis-mating
CT34E-1TK/J(XX)-01M	φ14~φ15.5	φ8.6	Color, keyway

[Straight plug CT34E-1TK/J(XX)-01U]



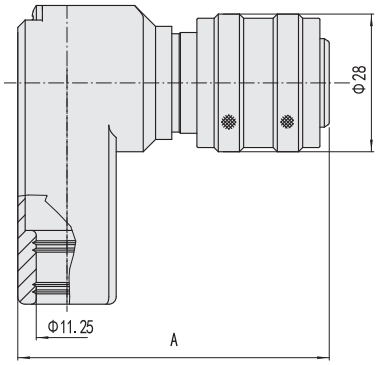
Part number	Lead-out dia.	Crimp bucket dia.	Anti mis-mating
CT34E-1TK/J(XX)-01U	ϕ10	ϕ6	Color, keyway

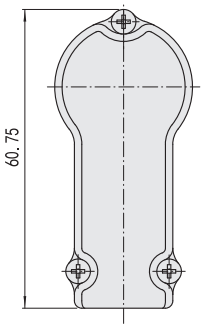
[Right-angle sealing plug]



Part number	Applicable wire	Anti mis-mating	Notes
CT34E-1TJ/K(XX)A001	25	Color	Contact the engineer for cable type
CT34E-1TJ/K(XX)A002	35	Color	Contact the engineer for cable type

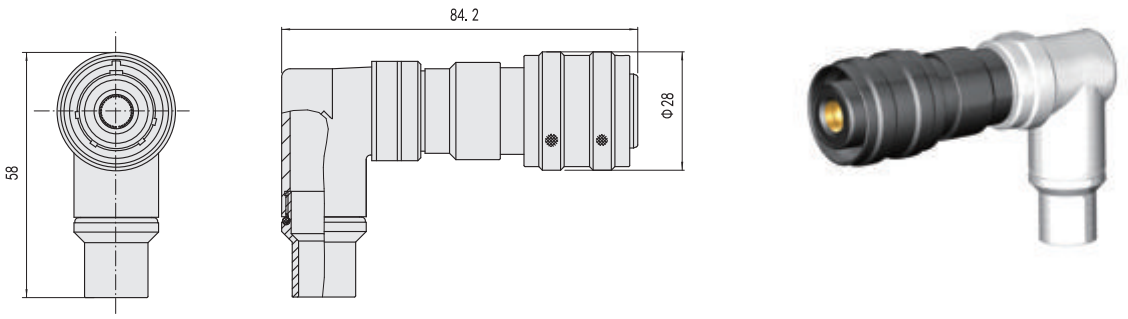
[Right-angle plug]





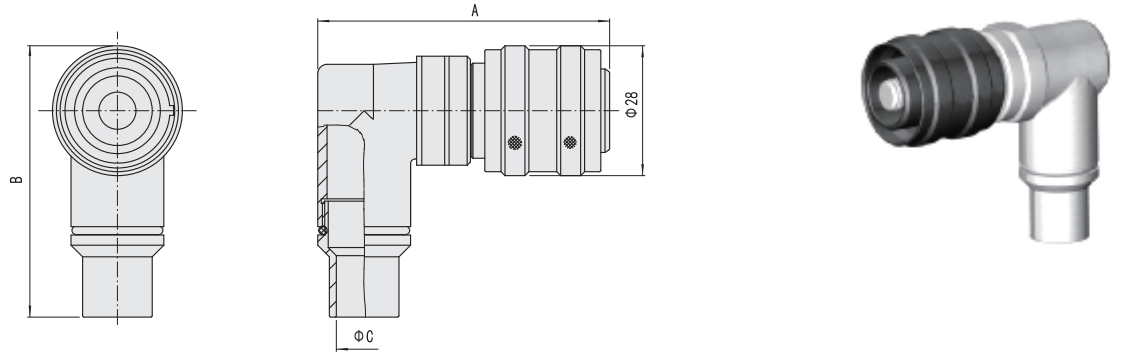
Part number	A	Crimp bucket dia.	Anti mis-mating
CT34E-1TK(XX)A006	63.3	ϕ8.6	Color
CT34E-1TK(XX)-01A	58.3	ϕ8.6	Color, 5 keyway

[Right-angle plug]



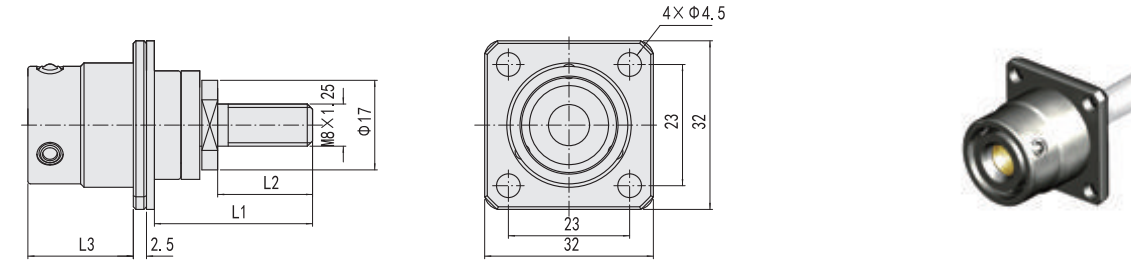
Part number	Crimp bucket dia.	Anti mis-mating
CT34E-1TK(XX)-01F	ϕ8.6	Color, 5 keyway

[Right-angle plug]



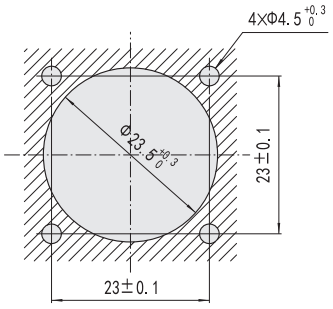
Part number	A	B	C	Crimp bucket dia.	Anti mis-mating
CT34E-1TK(XX)-01D	62.9	58	12	ϕ8.6	Color, 5 keyway
CT34E-1TJ(XX)-01D	62.9	58	12	ϕ7.5	Color, 5 keyway
CT34E-1TK(XX)-01G	62.9	58	16	ϕ8.6	Color, 5 keyway
CT34E-1TK(XX) A011	62.9	58.5	14	ϕ8.6	Color
CT34E-1TJ(XX) A011	62.9	58.5	12	ϕ7.5	Color
CT34E-1TJ(XX) A016	62.9	58.5	12	ϕ5.3	Color

[Square flange receptacle]

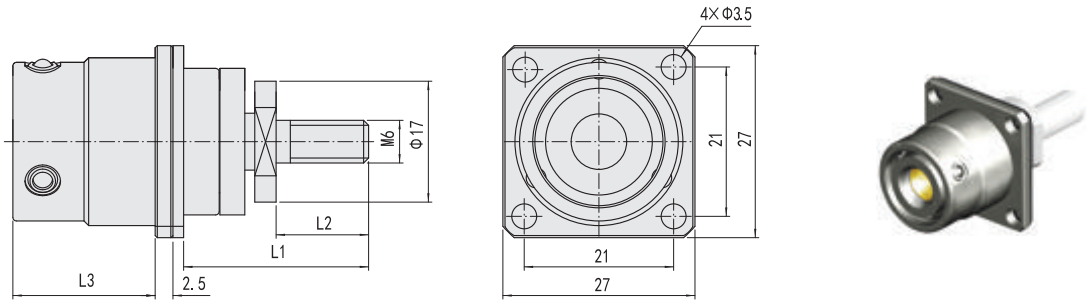


Part number	L1	L2	L3	A	Anti mis-mating
CT34E-1ZJ/K(XX)	30	18	20	21	Color
CT34E-1ZJ(XX)-01B	30.5	16.5	19	23.5	Color, 5 keyways

[Recommended panel cut-out dimensions]

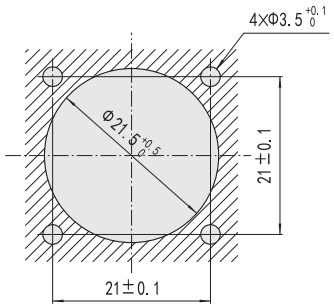


[Square flange receptacle]

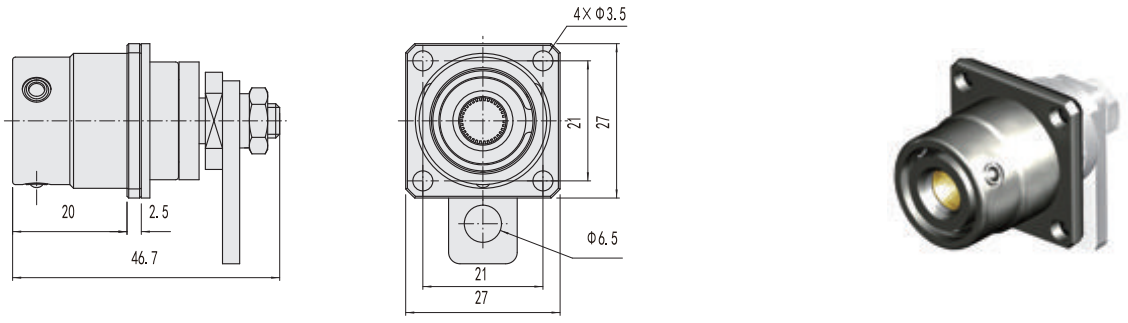


Part number	L1	L2	L3	Anti mis-mating
CT34E-1ZJ/K(XX) A001	26	13	20	Color
CT34E-1ZJ/K(XX) A003	22.7	10	20	Color
CT34E-1ZJ/K(XX) A004	30	12	20	Color
CT34E-1ZJ(XX) A006	25.7	13	20.3	Color
CT34E-1ZJ/K(XX)-01	30	12	15	Color, 5 keyways
CT34E-1ZJ(XX)-01A	25.7	13	20.3	Color, 5 keyways

[Recommended panel cut-out dimensions]

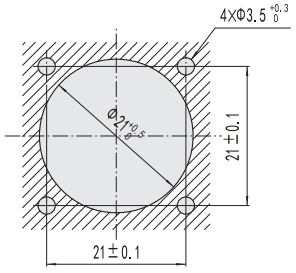


[Square flange receptacle]

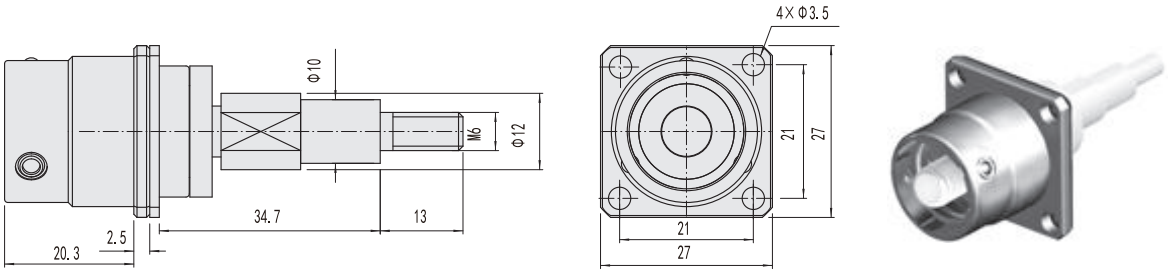


Part number	Anti mis-mating
CT34E-1ZK(XX) A005	Color

[Recommended panel cut-out dimensions]

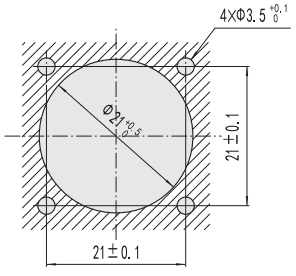


[Square flange receptacle]

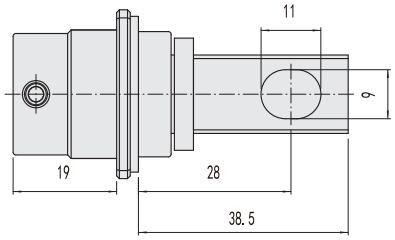


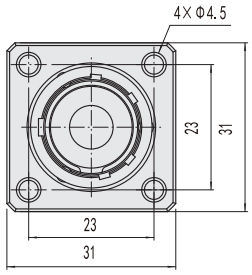
Part number	Anti mis-mating
CT34E-1ZJ(XX) A008	Color
CT34E-1ZJ(XX)-01C	Color, 5 keyways

[Recommended panel cut-out dimensions]



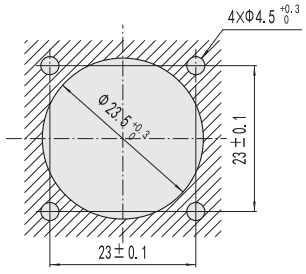
[Square flange receptacle]



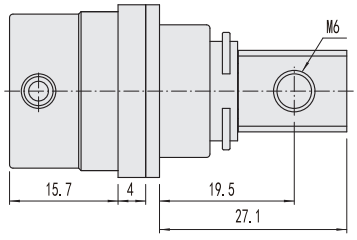


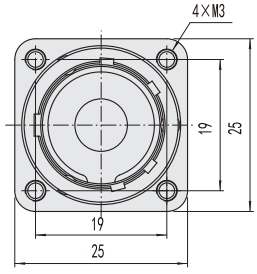
Part number	Anti mis-mating
CT34E-1ZJ/K(XX)-01G	Color, 5 keyways

[Recommended panel cut-out dimensions]



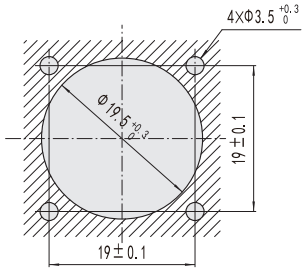
[Square flange receptacle]



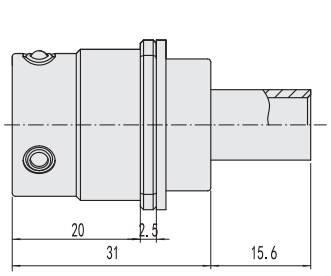


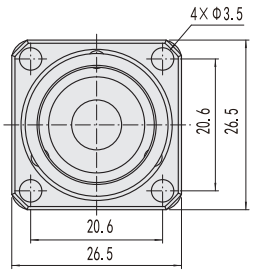
Part number	Anti mis-mating
CT34E-1ZJ/K(XX)-01F	Color, 5 keyways

[Recommended panel cut-out dimensions]



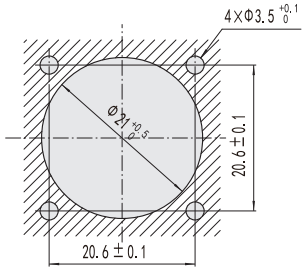
[Square flange receptacle]



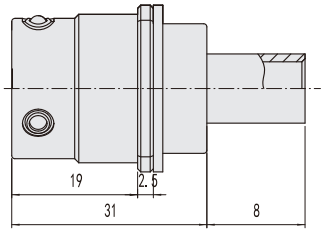


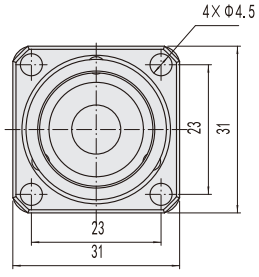
Part number	A	Anti mis-mating
CT34E-1ZJ (XX) A002	8.5	Color
CT34E-1ZJ (XX) -A009	6.5	Color

[Recommended panel cut-out dimensions]



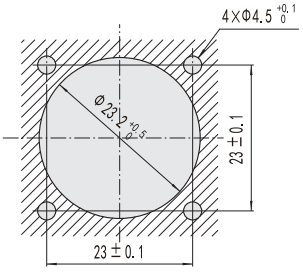
[Square flange receptacle]



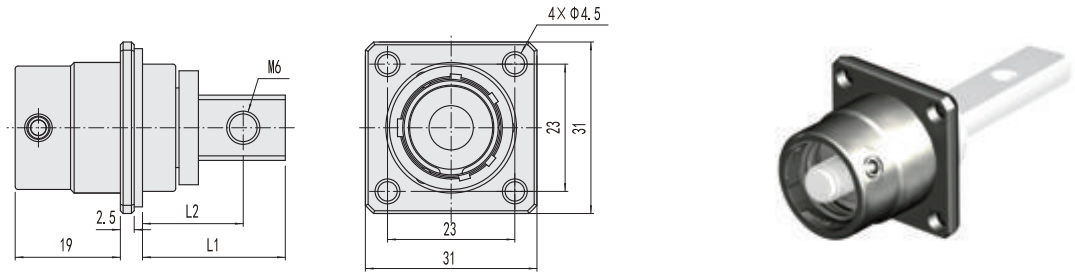


Part number	A	Anti mis-mating
CT34E-1ZJ/K(XX)-01H	7.5	Color, 5 keyways

[Recommended panel cut-out dimensions]

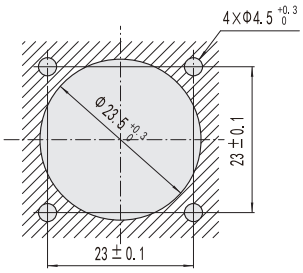


[Square flange receptacle]

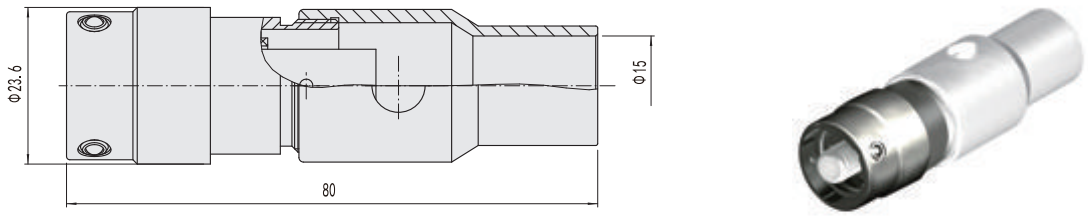


Part number	L1	L2	Anti mis-mating
CT34E-1ZJ/K(XX)-01D	25.8	18.2	Color, 5 keyways
CT34E-1ZJ/K(XX)-01E	37.2	28.5	Color, 5 keyways
CT34E-1ZJ(XX)-01J	56.1	39.1	Color, 5 keyways

[Recommended panel cut-out dimensions]

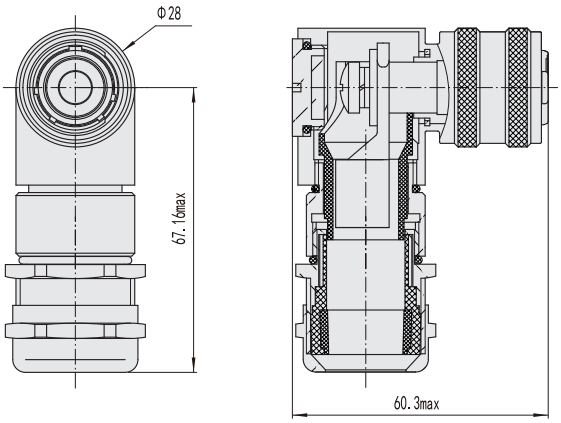


[Circular flange receptacle]



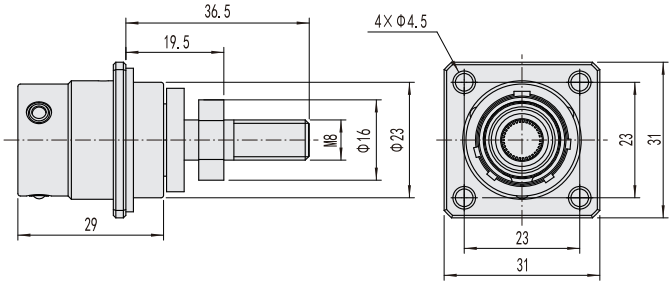
Part number	Crimp bucket dia.	Anti mis-mating
CT34E-1ZJ(XX)A010	ϕ8.6	Color

[Modified right-angle plug CT34E-1TJ(XX)-01T]



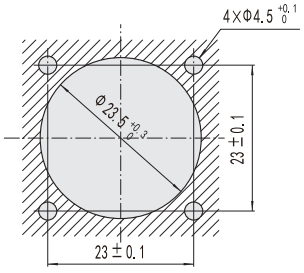
(Remarks: can only be mated withCt34E-1ZK(XX)-01T receptacle)

[Modified receptacle CT34E-1ZK(XX)-01T]



(Remarks: can be mated with CT34E-1TJ(XX)-01T plug)

[Recommended panel cut-out dimensions]



CT34D series bayonet connector

Brief introduction

- Applied to high current transmission in damp environment within EV and rainy environment.
- Plug termination: crimping; receptacle termination: threaded coupling, copper bar coupling, crimping
- Two shell types: shielding and non-shielding
- Reliable crown band socket for soft mating and unmating, low contact resistance
- Quick bayonet coupling
- Enterprise standard: Q/21EJ874
- Protection degree: IP66

Application

Applicable to current transmission of EV.

Operating environment

The product is applied to EV circuit.

Main technical characteristics

[Mechanical]

——Shell: shielding product: nickel plating,
Non-shielding product: black painting
——Insulator: PA66
——Grommet and seal: silicon rubber
——Contact: copper alloy, silver plating
——Vibration: frequency: 10～2000Hz,
acceleration: 196m/s²
——Shock: acceleration 490m/s²
——Constant acceleration: 490m/s²
——Endurance: 500 cycles

[Environmental]

——Operating temperature: −40℃～+105℃
——Relative humidity: 95% at 40℃
——Protection degree:
IP66 (this is secured by customers during installation)
——Salt spray: 48 hours

[Electrical]

——Rating voltage, withstanding voltage (V) and insulator resistance (MΩ):

Operating environment	Rating voltage	Withstanding voltage	Insulator resistance
Normaltemperature	600 AC	3000 AC	⩾5000

——Contact resistance and rating current:

Contact size mm	Contact resistance mΩ	Rating current A	Wire section mm²
ϕ14	0.25	300	70
ϕ11	0.5	200	50
ϕ10	0.5	200	50

Ordering information

Basic series	CT34	D	300	-1	T	J	N	(XX)	-01
Power series	D DA DB								
Rating current	300—300A 200—200A								
Contact number	1 core								
Connector type	T—plug Z—receptacle								
Contact type	J—pin K—socket								
Polarization	N W X / A B C D E								
Shell color	RE—red BL—blue YE—yellow GR—green BK—black								
Alternative code	-XX different receptacle mounting type and plug lead-out dia., for example: -01 -A00X different receptacle mounting type and plug lead-out dia., for example: -A001								

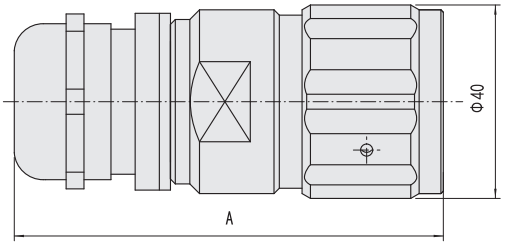
[Part number example]

CT34D300-1TJN

CT34D series bayonet plug, rating current 300A, 1 contact, filled with pin, N polarization.

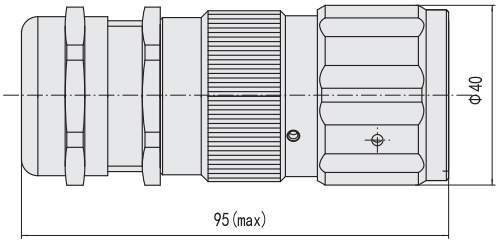
Outline dimensions

[Straight plug]



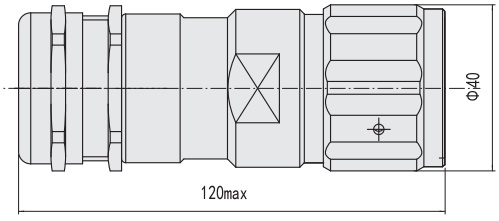
Part number	A	Crimp bucket dia.	Lead-out dia.	Shielding	Anti mis-mating
CT34D200-1TJ/KN	86.4	ϕ9.4	ϕ12～ϕ16	No	Keyway
CT34D300-1TJ/KN	86.4	ϕ11.4	ϕ13～ϕ18	No	Keyway
CT34D300-1TJN A002	88.7	ϕ11.4	ϕ15～ϕ22	No	Keyway
CT34D300-1TJ/KN-07	96.4	ϕ11.4	ϕ13～ϕ18	Yes	Keyway
CT34D300-1TJ(XX)-15	105.4	ϕ11.4	ϕ14～ϕ18	Yes	Color
CT34D300-1TJ/K(XX)-16	96.4	ϕ11.4	ϕ13～ϕ18	Yes	Color, keyway
CT34D300-1TJ/KA	96.4	ϕ11.4	ϕ13～ϕ18	Yes	Keyway

[Straight plug]



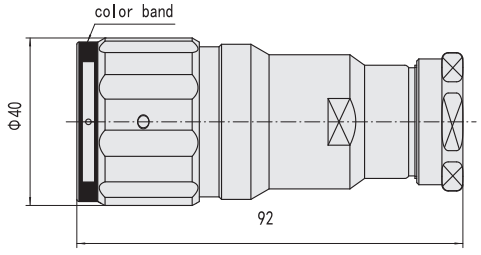
Part number	Crimp bucket dia.	Lead-out dia.	Shielding	Anti mis-mating
CT34D300-1TJN A003	ϕ11.4	ϕ15~ϕ22	No	Keyway

[Straight plug]



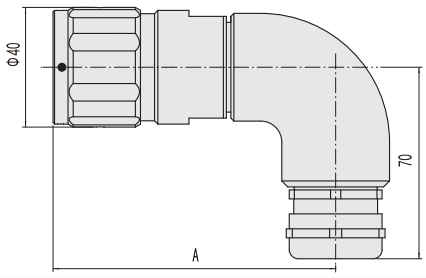
Part number	Crimp bucket dia.	Lead-out dia.	Shielding	Anti mis-mating
CT34D300-1TJN-03 A003	ϕ11.4	ϕ18~ϕ22	Yes	Keyway

[Straight plug]



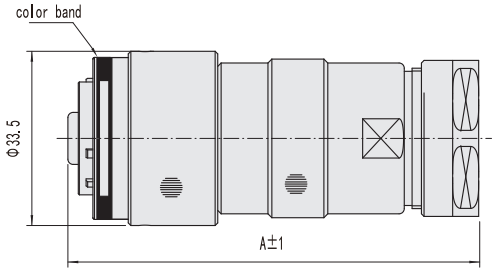
Part number	Crimp bucket dia.	Lead-out dia.	Shielding	Anti mis-mating
CT34D300-1TJN(XX)-17	ϕ11.4	ϕ18	Yes	Color, keyway

[Right-angle plug]



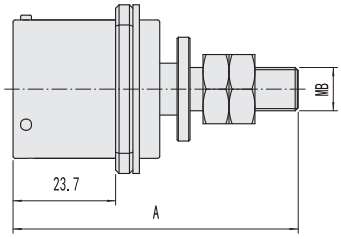
Part number	A	Crimp bucket dia.	Shielding	Lead-out dia.	Anti mis-mating
CT34D200-1TJ/KN-04	84.4	ϕ9.4	Yes	ϕ15~ϕ16	Keyway
CT34D200-1TJ/KN-05	76.4	ϕ9.4	Yes	ϕ15~ϕ16	Keyway
CT34D300-1TJN-04	84.4	ϕ11.4	Yes	ϕ13~ϕ18	Keyway
CT34D300-1TJN(XX)-04	84.4	ϕ11.4	Yes	ϕ13~ϕ18	Color, keyway
CT34D300-1TJN-05	73.4	ϕ11.4	No	ϕ13~ϕ18	Keyway
CT34D300-1TJ/K(XX)-05	73.4	ϕ11.4	No	ϕ14~ϕ18	Color
CT34D300-1TJN(XX)-05	73.4	ϕ11.4	No	ϕ13~ϕ18	Color, keyway

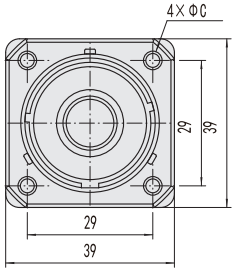
[Short straight plug]

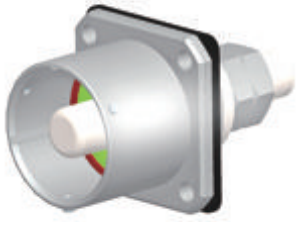


Part number	A	Crimp bucket dia.	Shielding	Lead-out dia.	Anti mis-mating
CT34DA200-1TJN-01	79.15	ϕ11.5	Yes	ϕ18	Keyway,color
CT34DB200-1TJ (XX)	78.5	ϕ11.5	Yes	ϕ18	Color

[Square flange receptacle]

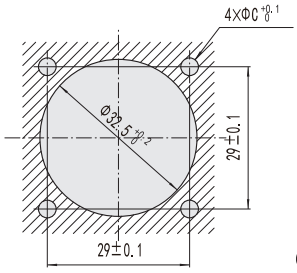






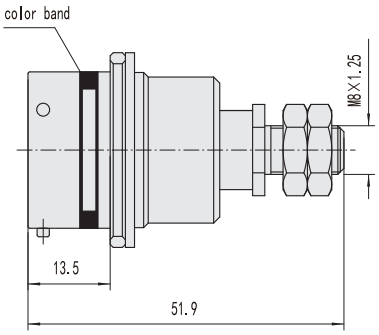
Part number	A	B	C	Shielding	Anti mis-mating
CT34D200-1ZJN-05	65.9	10	3.2	Yes	Keyway
CT34D300-1ZK/JN(XX)-05	62	8	4.3	Yes	Color, keyway
CT34D300-1ZK/JN-07	61.9	8	4.3	Yes	Keyway

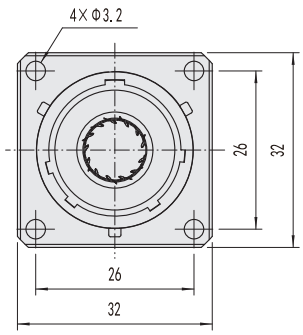
[Recommended panel cut–out dimensions]



C is the dimension in the above drawing.

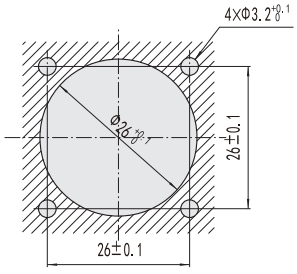
[Square flange receptacle]



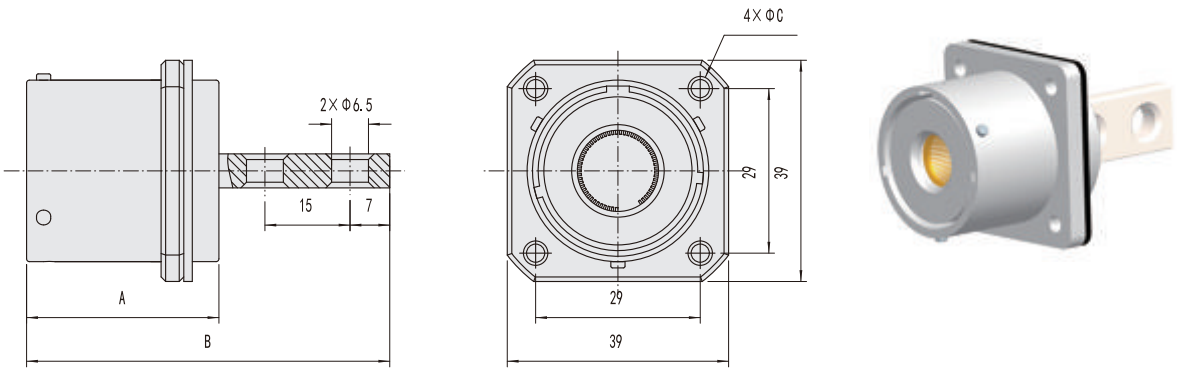


Part number	Shielding	Anti mis–mating
CT34DA200–1ZKN	Yes	Color, keyway

[Recommended panel cut–out dimensions]

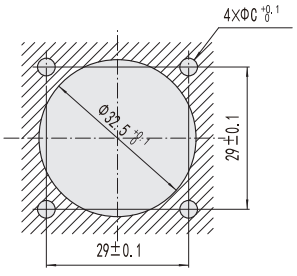


[Square flange receptacle]



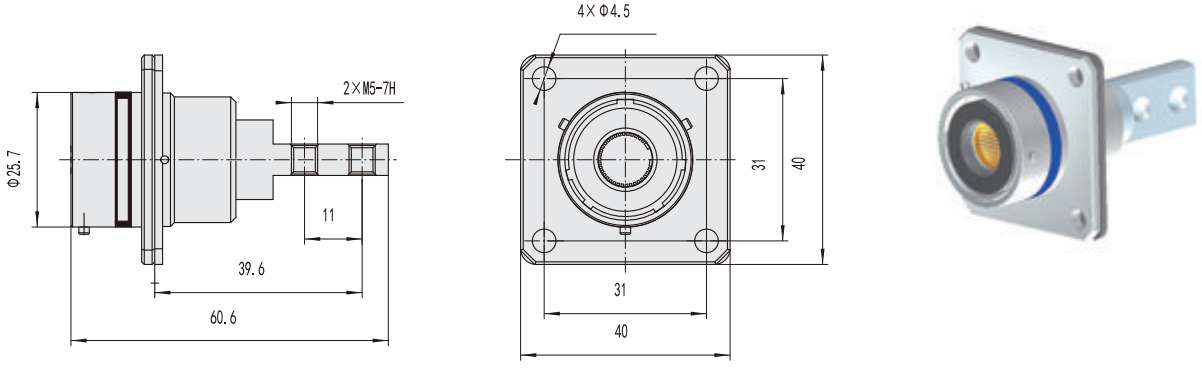
Part number	A	B	C	Shielding	Anti mis-mating
CT34D200-1ZK/JN	33.9	64	3.6	No	Keyway
CT34D300-1ZK/JN	33.9	64	3.6	No	Keyway
CT34D300-1ZKN(XX)	35.5	65.6	3.6	Yes	Color, keyway
CT34D300-1ZJ/K A001	33.9	67	4.3	No	Keyway
CT34D300-1ZJN-03	33.9	64	4.3	Yes	Keyway
CT34D300-1ZJ/KN-03 A001	33.9	67	4.3	Yes	Keyway

[Recommended panel cut-out dimensions]



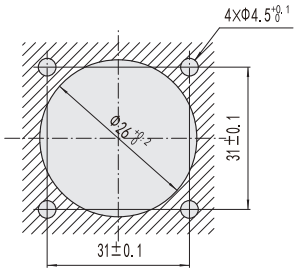
C is the dimension in the above drawing.

[Square flange shielding receptacle]

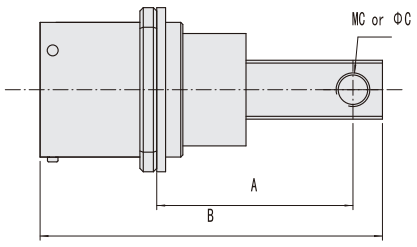


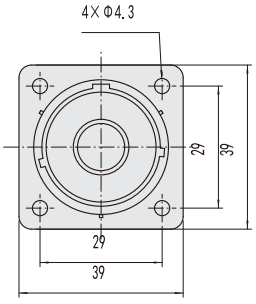
Part number	Shielding	Anti mis-mating
CT34DA200-1ZKN-04	Yes	Color, keyway

[Recommended panel cut-out dimensions]



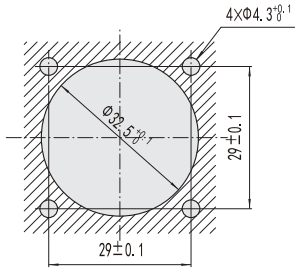
[Square flange receptacle]



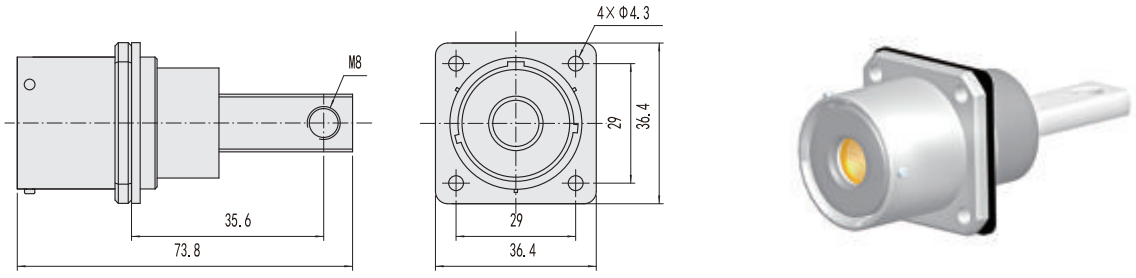


Part number	A	B	C	Shielding	Anti mis-mating
CT34D200-1ZKN-03	48.9	85.3	M8	Yes	Keyway
CT34D200-1ZKN(XX)-03	90.3	55.3	M8	Yes	Color, keyway
CT34D200-1ZKN-04	68.6	39.4	Φ8.5	Yes	Keyway
CT34D300-1ZKN-03	50.6	85.3	M8	Yes	Keyway
CT34D300-1ZKN-08	53	95.3	Φ8.5	Yes	Keyway
CT34D300-1ZKN(XX)-03	90.3	55.3	M8	Yes	Color, keyway
CT34D300-1ZJ/KN(XX)-16	50.6	85.3	M8	Yes	Color, keyway

[Recommended panel cut-out dimensions]

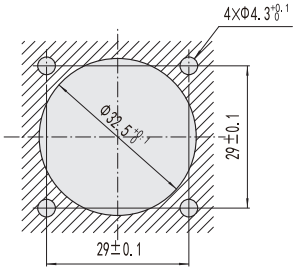


[Square flange receptacle]

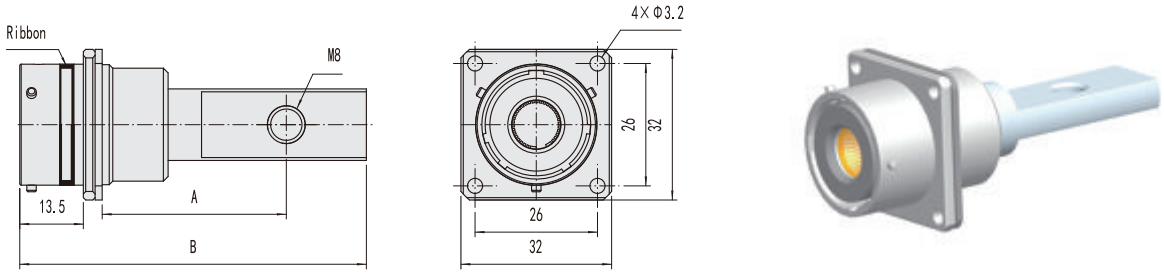


Part number	Shielding	Anti mis-mating
CT34D300-1ZJ/KA-01	Yes	Keyway

[Recommended panel cut-out dimensions]

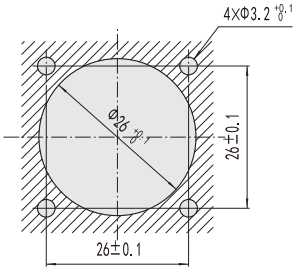


[Square flange receptacle]

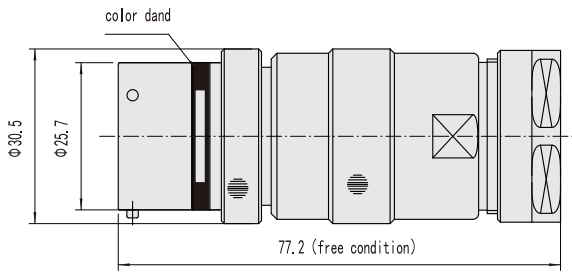


Part number	A	B	Shielding	Anti mis-mating
CT34DA200-1ZKN-02	39.1	73.6	Yes	Color, keyway
CT34DA200-1ZK/J(XX)	50.6	75.1	Yes	Color
CT34DA200-1ZJ(XX)-06	50.6	75.1	Yes	Color

[Recommended panel cut-out dimensions]

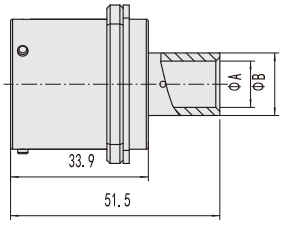


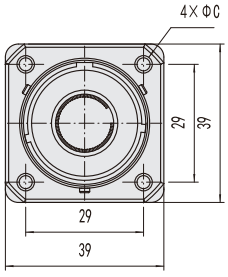
[Receptacle]



Part number	Shielding	Crimp bucket dia.	Lead-out dia.	Anti mis-mating
CT34DA200-1ZKN-01	Yes	ϕ11.5	ϕ18	Color, keyway
CT34DB200-1ZK(XX)	Yes	ϕ11.5	ϕ18	Color

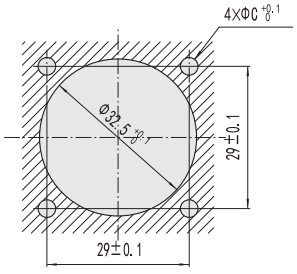
[Square flange receptacle]





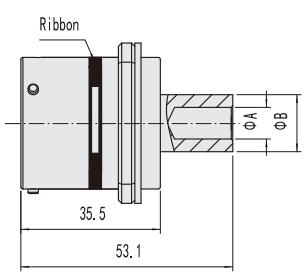
Part number	Shielding	A	B	C	Anti mis-mating
CT34D200-1ZJ/KN-07	Yes	9.4	15.4	4.3	Keyway
CT34D200-1ZJ/KN-08	No	9.4	15.4	3.6	Keyway
CT34D300-1ZK/JN-01	No	11.4	15.4	3.6	Keyway
CT34D300-1ZK/J(XX)-01	No	11.4	15.4	3.6	Color
CT34D300-1ZKN-09	Yes	11.4	15.4	4.3	Keyway

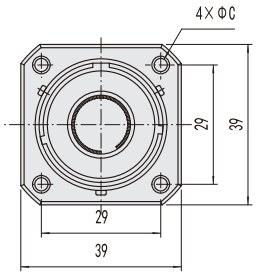
[Recommended panel cut-out dimensions]



C is the dimension in the above drawing.

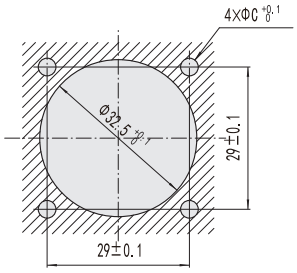
[Square flange receptacle]





Part number	Shielding	A	B	C	Anti mis-mating
CT34D300-1ZKN(XX)-01	Yes	11.4	15.4	3.6	Color, keyway
CT34D300-1ZKN(XX)-10	Yes	10	14	4.3	Color, keyway

[Recommended panel cut-out dimensions]



C is the dimension in the above drawing.

CT34T series push & pull heavy current connector

Brief introduction

- Plug termination: crimping; receptacle termination: crimping, copper bar coupling, threaded coupling
- Reliable open-ended socket for soft mating and unmating, low contact resistance
- Push & pull structure, quick coupling
- Two polarization types for mis-mating: 90° , 180°
- Company standard: Q/21EJ1326

Application

Applicable to high current transmission.

Operating environment

The product is applied to high current transmission in damp environment within EV and rainy environment.

Main technical characteristics

[Mechanical]

——Shell: shielding products, nickel plating
——Insulator: PBT
——Grommet and seal: silicon rubber
——Contact: copper alloy, silver plating
——Vibration: frequency: 10～2000Hz,
acceleration: 147m/s^2
——Shock: acceleration 490m/s^2
——Constant acceleration: 490m/s^2
——Endurance: 500 cycles

[Environmental]

——Operating temperature: −55℃～+125℃
——Relative humidity: 95% at 40℃
——Protection degree: IP67
——Salt spray: 96 hours

[Electrical]

——Rating voltage, withstanding voltage (V) and insulator resistance (MΩ):

Operating environment	Rating voltage	Withstanding voltage	Insulator resistance
Normal temperature	1000 AC	3000 AC	⩾5000

——Contact resistance and rating current:

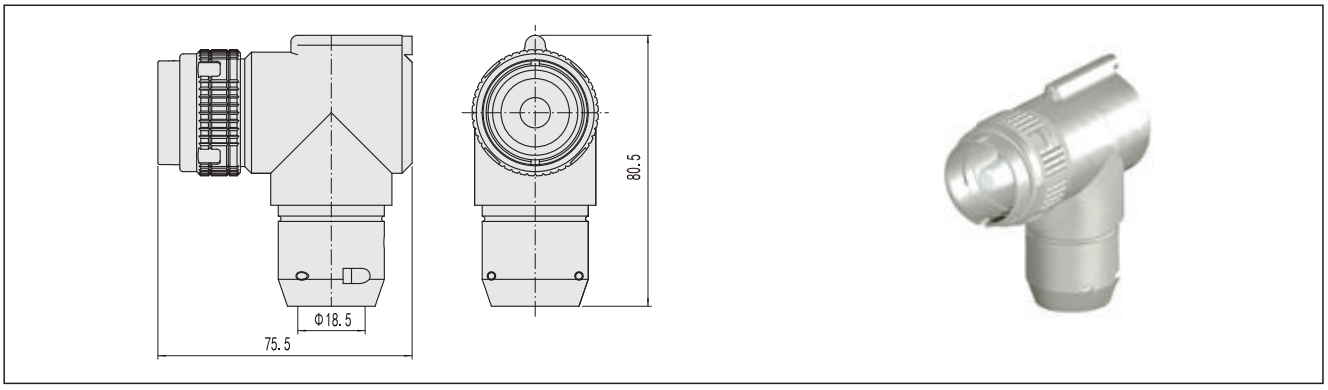
Contact size mm	Contact resistance mΩ	Rating current A	Wire section mm^2
ϕ10	⩽0.30	300	70

Ordering information

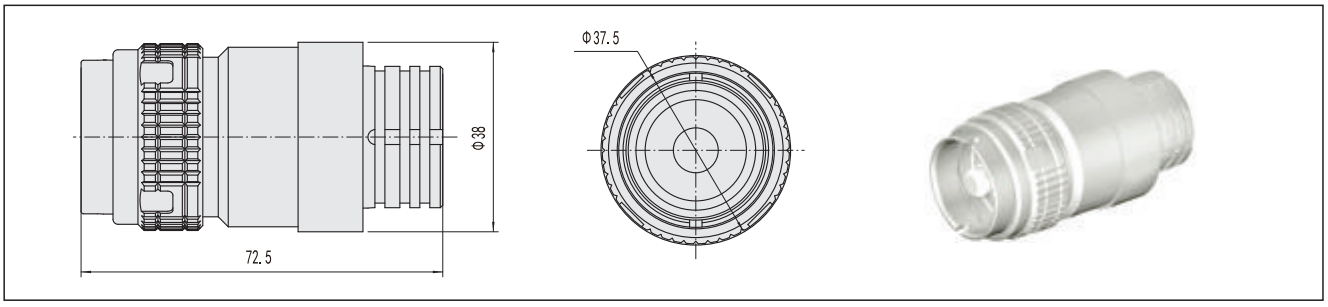
Basic series	CT34	T	300	-1	T	J	180	-01
Push & pull structure								
Current	300A							
Contact number	1 contact							
Connector type	T - plug Z - receptacle							
Contact type	J - male K - female							
Shell polarization degree	180 90							
Alternative code	Basic type -01 -02 -03							

Outline dimensions

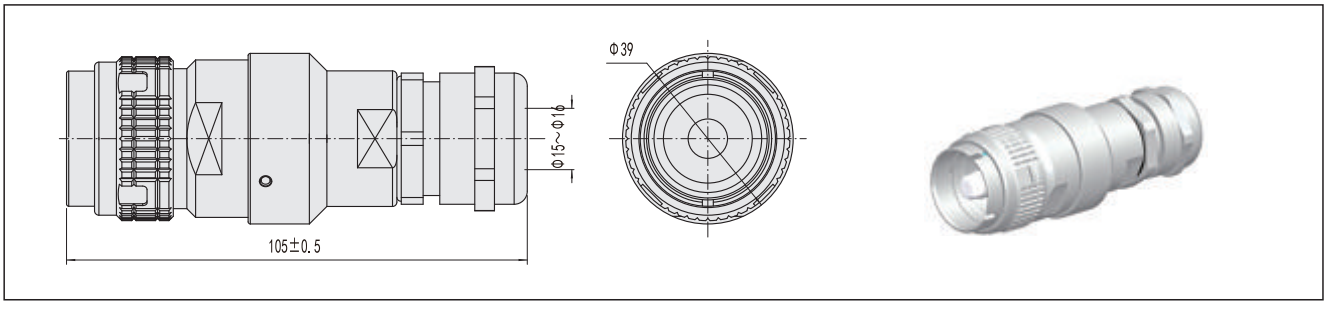
[Right-angle plug CT34T300-1TJ180(90)]



[Plug CT34T300-1TJ180-02]

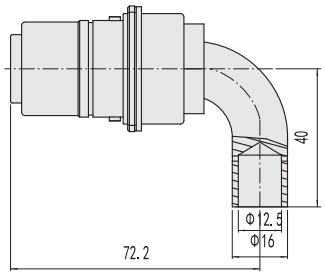


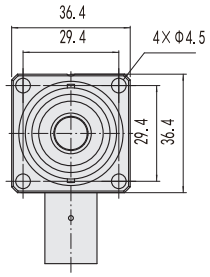
[Plug CT34T300-1TJ180-03]



300A receptacle

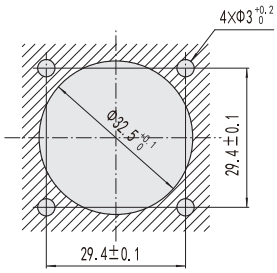
[Square flange receptacle]



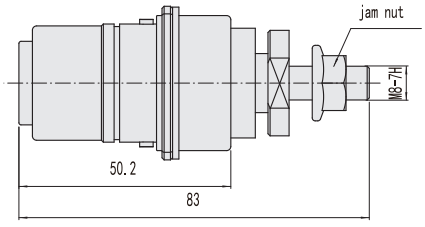


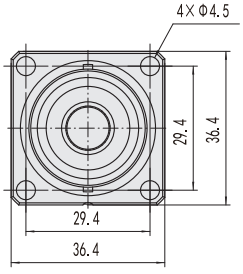
Part number	Shielding	Anti mis-mating
CT34T300-1ZK180 A001	Yes	Keyway

[Recommended panel cut-out dimensions]



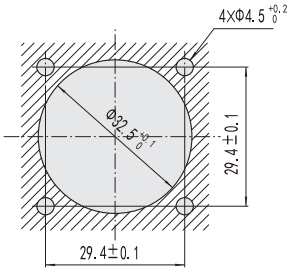
[Square flange receptacle]





Part number	Shielding	Anti mis-mating
CT34T300-1ZK180-02G001	Yes	Keyway

[Recommended panel cut-out dimensions]



GYH series high voltage interlock connector

Brief introduction

- Shielding function
- Reliable crown band socket for soft mating and unmating, low contact resistance, withstand vibration
- Straight push & pull structure, quick coupling
- Protection degree: IP67

Application

Applicable for heavy current transmission in motor, battery and inverter of EV.

Operating environment

The product complies with QC/T413 vibration standard. It is applied for electrical connection in shock and vibration environment within EV and rainy environment.

Main technical characteristics

[Mechanical]

——Shell: aluminum base metal, nickel plating
——Insulator: PA66
——Grommet and seal: silicon rubber
——Contact: copper alloy, gold or silver plating
——Vibration: frequency: 10-2000Hz,
acceleration: 196m/s^2
——Shock: acceleration 490m/s^2
——Endurance: 500 cycles

[Environmental]

——Operating temperature: -40℃ ~ +120℃
——Relative humidity: 95% at 40℃
——Protection degree: IP67 (this is secured by customers during installation)
——Salt spray: 48 hours

——Contact resistance and rating current:

Contact size mm	Contact resistance mΩ	Rating current A	Wire section mm2
ϕ10	0.5	150~200	35、50
ϕ3	0.75	40	2.5~4
16#	2.5	5	0.5
20#	5	5	0.5

——Rating voltage, withstanding voltage (V) and insulation resistance (MΩ):

Operating environment	Rating voltage	Withstanding voltage	Insulation resistance
Normal	500 AC	2000 AC	⩾5000

GYHA Ordering information

Basic series	GYH	A	−3	−200	T	−01
Connector structure	A					
Contact number	3					
Rating current	200A					
Connector type	T − plug Z − receptacle					
Alternative code	−01, −02, −03… −01 termination type, wire diameter, see the outline dimension drawing for details.					

GYHB ordering information

Basic series	GYH	B	−2	−150	T	G001
Connector structure	B					
Contact number	2, 3, 4…					
Rating current	40A、150A、200A……					
Connector type	T − plug Z − receptacle					
Alternative code	G001, G002, G003… G001 termination type, wire diameter, see the outline dimension drawing for details.					

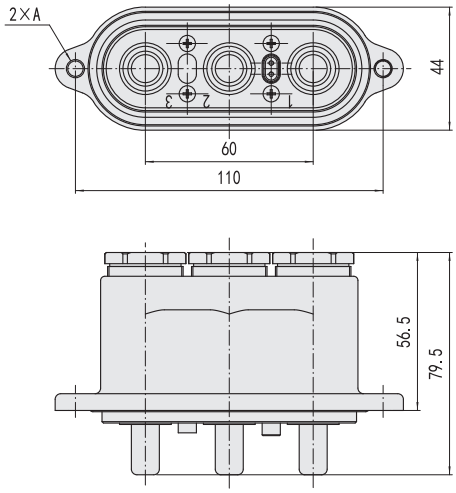
[Part number example]

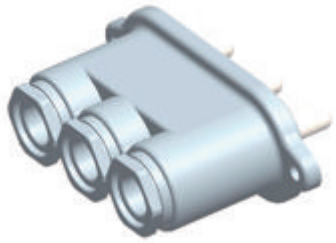
GYHA−3−200T

GYHA series plug, 3 contacts, rating current 200A.

Outline dimensions

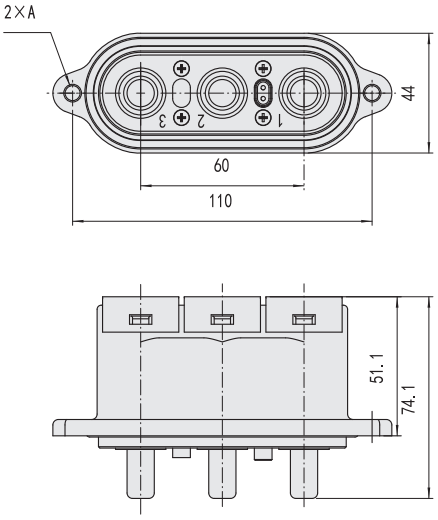
[Jam nut plug]





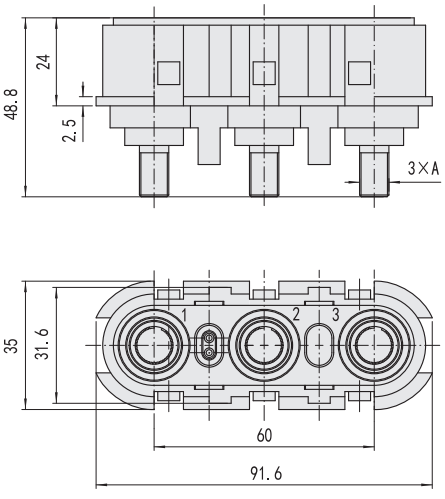
Part number	A	Applicable wire
GYHA−3−200T	ϕ5.5	25
GYHA−3−200T−01	ϕ5.5	50
GYHA−3−200T−02	M6	25

[Plug]



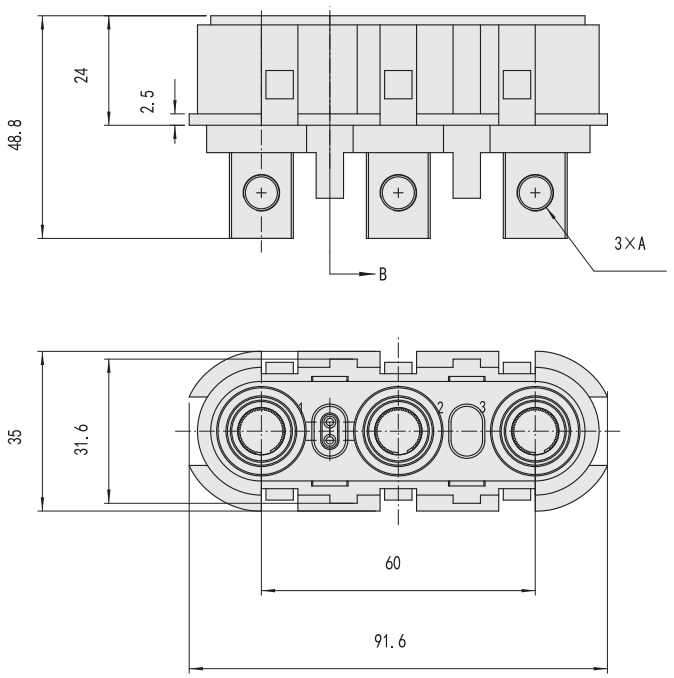
Part number	A	Applicable wire
GYHA-3-200T-03	ϕ5.5	35

Receptacle



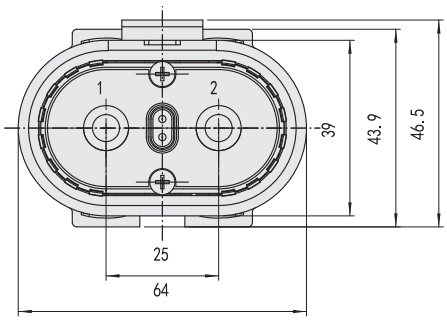
Part number	A
GYHA-3-200Z	M8
GYHA-3-200Z-01	M6

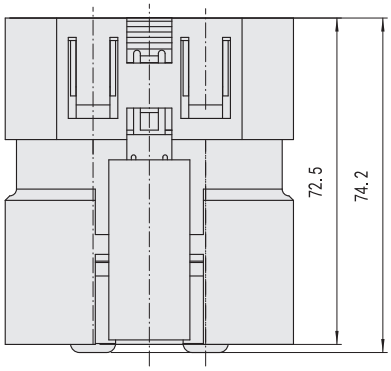
[Receptacle]

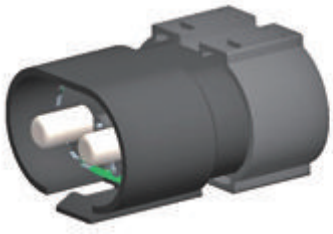


Part number	A
GYHA-3-200Z-02	M8

[Plug]

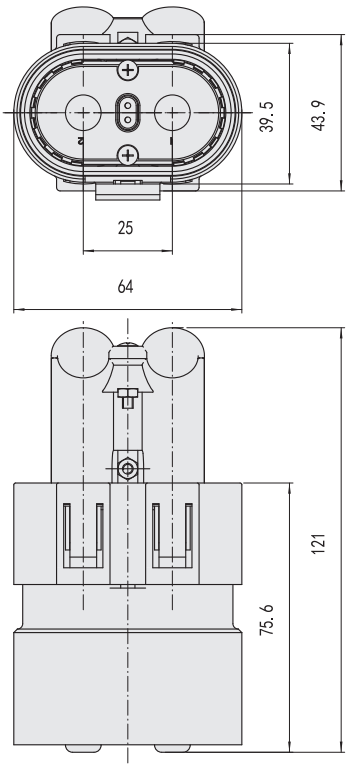






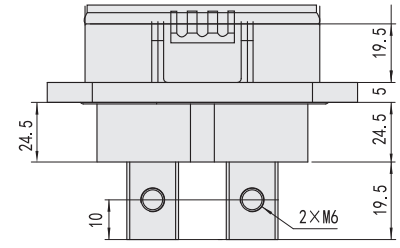
Part number	Applicable wire
GYHB-2-150T G001	35

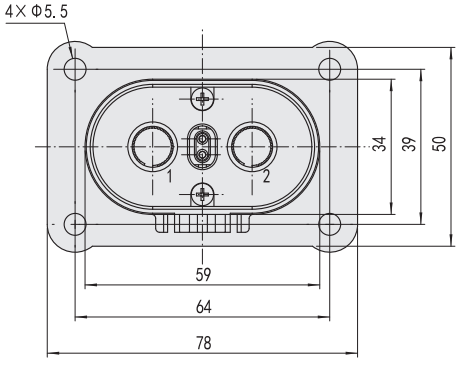
[Plug]



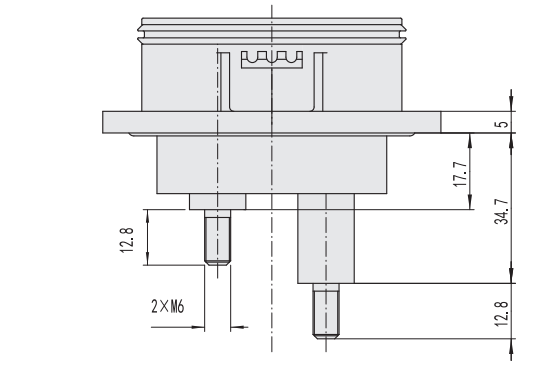
Part number	Applicable wire
GYHB-2-150T G002	25

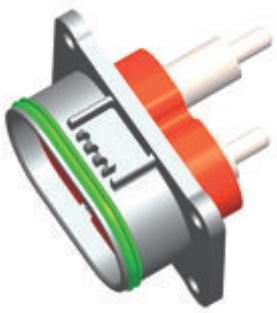
[Receptacle GYHB-2-150Z G001]

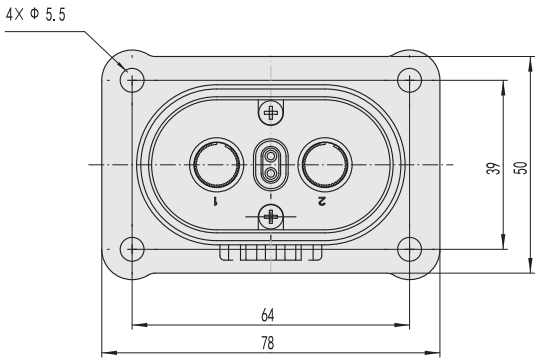




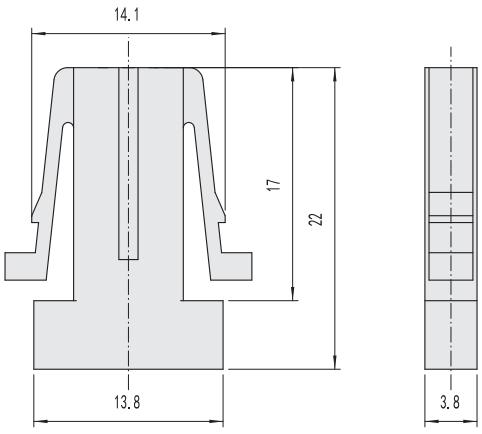
[Receptacle GYHB-2-150Z G002]







[Interlock plug GYHT-2T]



DY3 series bayonet water-proof crimping connector

Brief introduction

- Applied in electrical connection in damp environment within EV and rainy environment
- Quick bayonet coupling
- Five keyway for anti mis-mating
- 360° shielding
- Protection degree: IP68
- Enterprise standard: Q/21EJ62

Main technical characteristics

[Mechanical]

——Shell: aluminum alloy, nickel plating
——Insulator: PET
——Contact: silver plating
——Vibration: frequency: 10～500Hz
acceleration: 100m/s²
——Shock: acceleration 490 m/s²
——Endurance: 500 cycles

[Environmental]

——Operating temperature: -40℃～+105℃
——Relative humidity: 95% at 40℃
——Protection degree: IP68 (protection degree of mating interface is ensured by customer)
——Salt spray: 48 hours

[Electrical]

——Contact resistance and rating current:

Contact size mm	Contact resistance mΩ	Rating current A	Applicable wire
16#	≤2.5	13	See the figure
ϕ2	≤3	20	14AWG
12#	≤1.5	30	12AWG

——Rating voltage, withstanding voltage (V) and insulation resistance (MΩ):

Operating environment	Rating voltage	Withstanding voltage	Insulation resistance
Normal	220 AC	3050 AC	≥5000

GYHA Ordering information

Basic series	DY3	F	14	02	P	N	F	01
Connector type	F(square flange receptacle), T (plug), Y(circular flange receptacle)							
Shell size	10, 12, 14							
Contact number	02、03、04							
Contact	P-pin S-socket							
Polarization	N, A, B, C, D							
Shell material	F aluminum alloy							
Alternative code	-01, -02							

[Part number example]

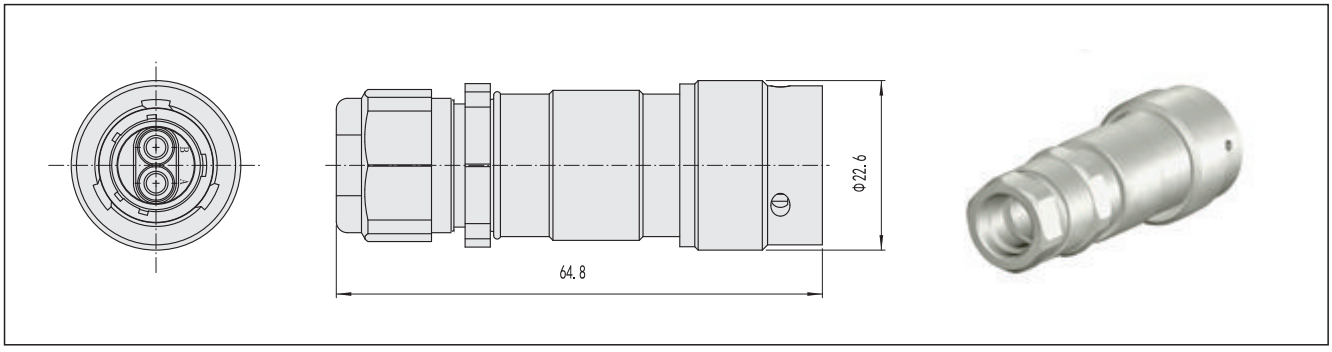
DY3T1002PNF

DY3 series bayonet plug, 10# shell size, 2 contacts, filled with pins, N polarization, aluminum alloy shell.

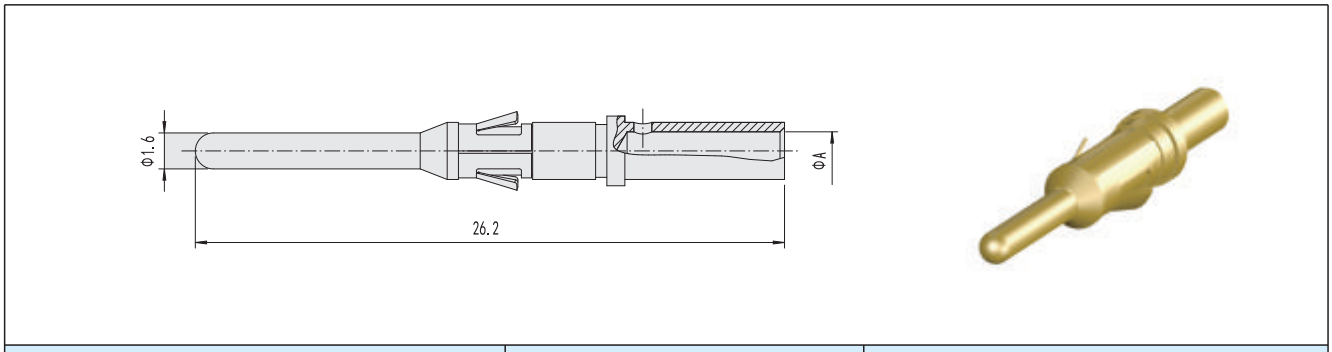
Outline dimensions

2-core 13A product

[Straight plug with accessory DY3T1002PNF]

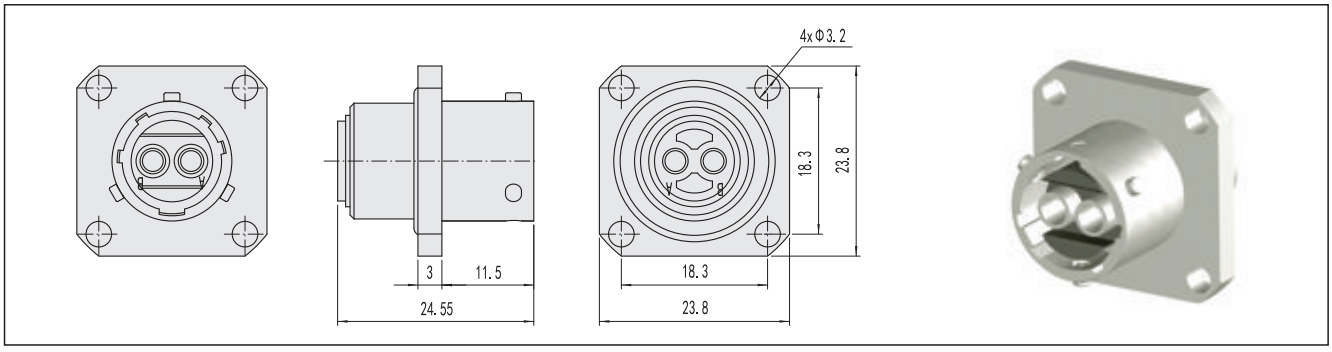


[plug drawing]

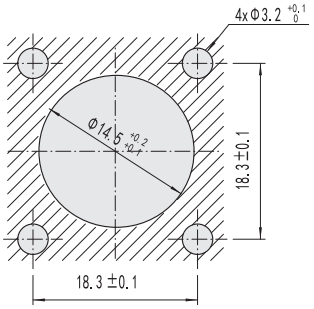


Part number	A	Applicable wire
21E6-570-1100-B1	1.7	10AWG
21E6-570-1101-B1	1.3	20AWG
21E6-570-1318-B1	2.3	14AWG

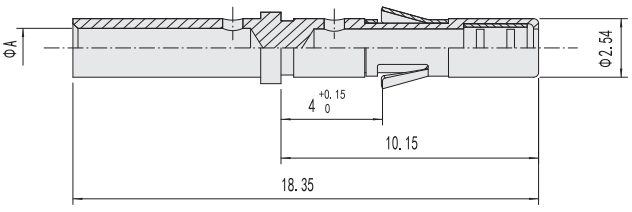
[Receptacle DY3F1002SNF]



[Recommended panel cut-out dimensions]



[Socket drawing]

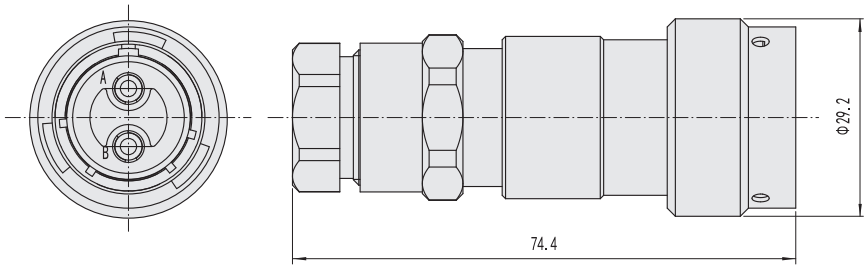


Part number	A	Applicable wire
21E6-571-1996-B1	1.7	16AWG
21E6-571-1997-B1	1.3	20AWG
21E6-571-2328-B1	2.3	14AWG

Notes: Contacts are ordered separately.

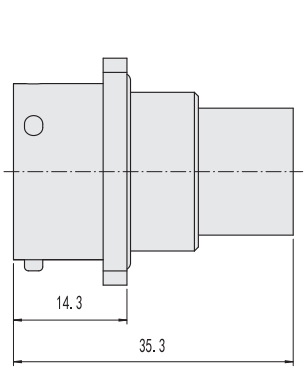
[2-core 30A product]

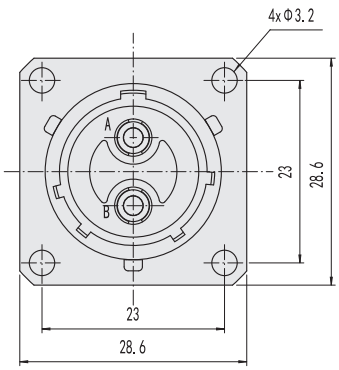
[Straight plug with accessory]



Part number	Crimping bucket dia.
DY3T1402PNF	ϕ2.5

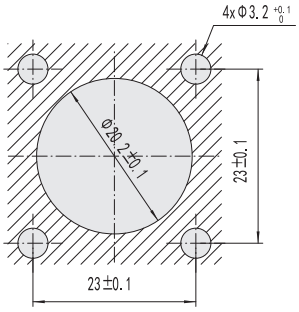
[Square flange receptacle]





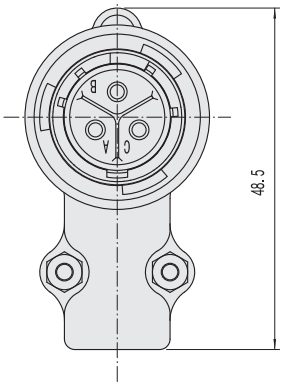
Part number	Crimping bucket dia.
DY3F1402SNF	ϕ2.5

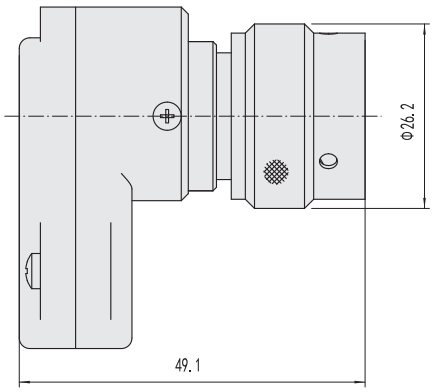
[Recommended panel cut-out dimensions]



3-core 20A product

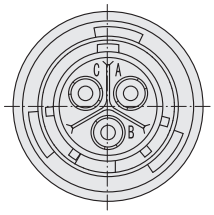
[Right-angle non-shielding plug]

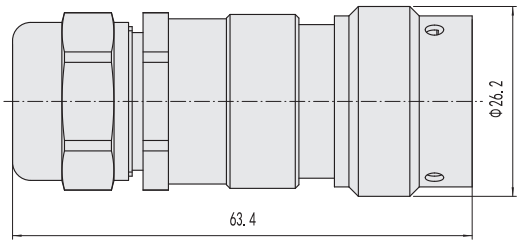




Part number	Crimping bucket dia.
DY3T1203PNF-01	ϕ2.1

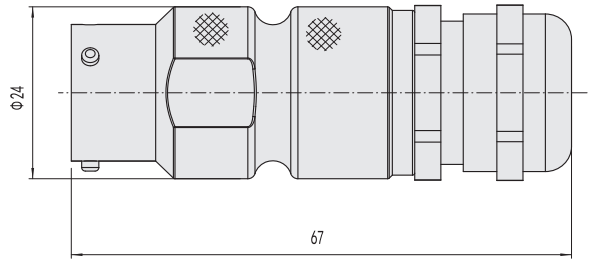
[Straight shielding plug]

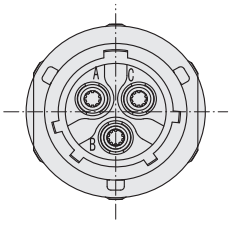




Part number	Crimping bucket dia.
DY3T1203PNF	ϕ2

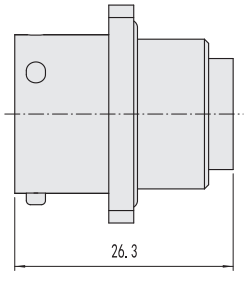
[Circular flange receptacle]

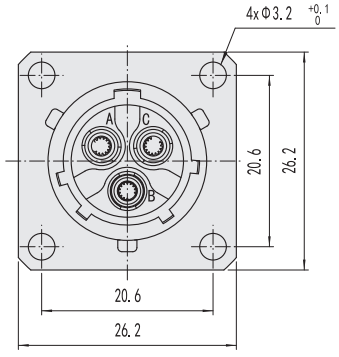




Part number	Crimping bucket dia.
DY3Y1203SNF	ϕ2.5

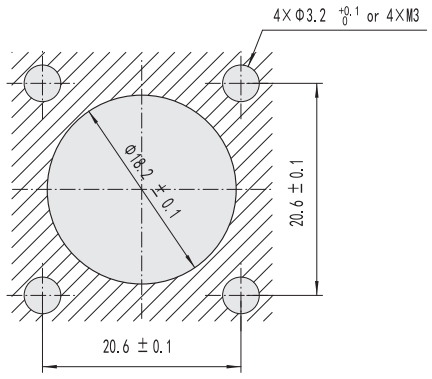
[Square flange receptacle]





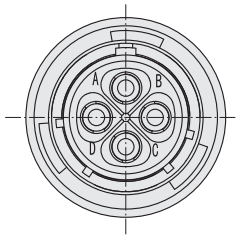
Part number	Crimping bucket dia.
DY3F1203SNF	ϕ2

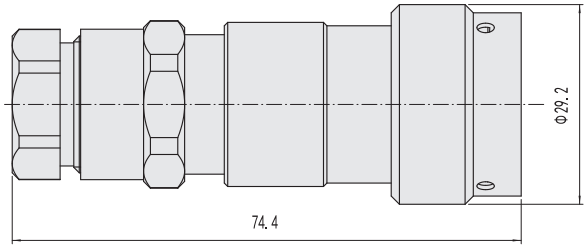
[Recommended panel cut-out dimensions]



4-core 30A product

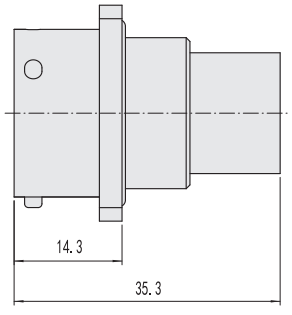
[Straight plug with accessory]

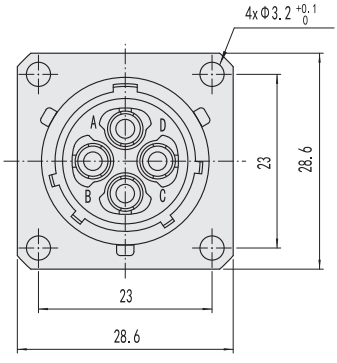




Part number	Crimping bucket dia.
DY3T1404PNF	ϕ2.5

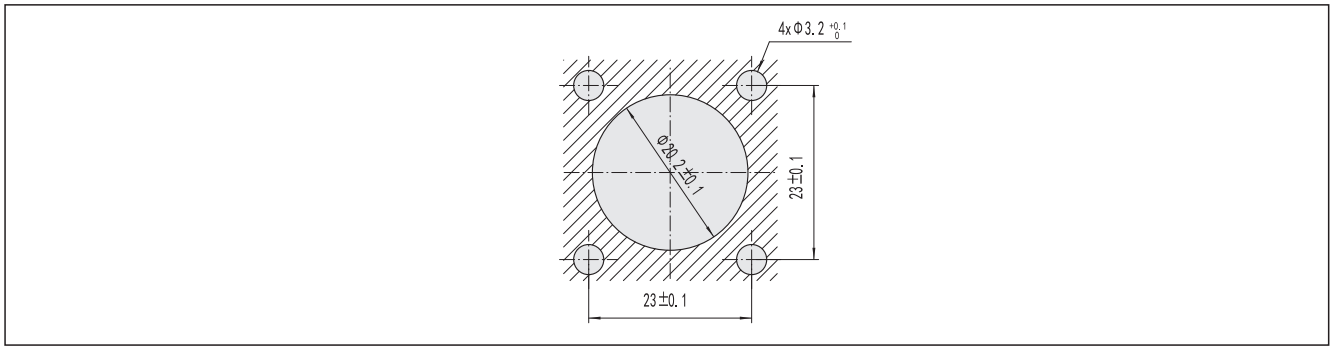
[Square flange receptacle]





Part number	Crimp boot dia.
DY3F1404SNF	ϕ2.5

[Recommended panel cut-out dimensions]



CT63-01 series circular connector

Brief introduction

- Quick bayonet coupling, convenient operation
- Crimping termination
- Single socket sealing
- 3 shell sizes, 3 insert arrangements
- Environmental resistance (water-proof, shielding, salt spray)
- Protection degree: IP67
- RoHS compliant
- Enterprise standard: Q/21EJ623

Application

This series product is used as an inlet of low voltage signal and current. It is applied in EV control box and equipment, usually used in DC controller, charger, etc.

Operating environment

With water-proof, dust-proof, excellent environmental resistance, it can be used outdoors for a long term. It achieves equipment signal lead-in, meets the current and voltage requirement.

Main technical characteristics

[Mechanical]

——Shell: Aluminum alloy, copper alloy
——Insulator: PBT, flame retardant rating:UL94-V0
——Contact: copper alloy, gold plating
——Vibration: 10～500Hz, acceleration: 100m/s^2
——Endurance: 500 cycles

[Electrical]

——Rating current: 13A
——Contact resistance: ⩽3mΩ
——Insulation resistance: ⩾5000MΩ (normal)
——Withstanding voltage: 2000V AC
——EMI shielding: 80dB 1MHz

[Environmental]

——Operating temperature: -40℃～+105℃
——Salt spray: 96 hours
——Protection degree: IP67

Ordering information

Basic series	CT63	-14	12	Z	J	(BK)/N	-01
Shell size	12, 14, 16						
Insert arrangement	see the insert arrangement figure						
Structure	T-plug, Z-square flange receptacle						
Contact	J-pin, K-socket						
Color/polarization	(BK)-black, (GR)-green, (BL)-blue, (RE)-red, (YE)-yellow; 5 kinds of polarization: N/A/B/C/D						
Alternative code	01、02……						

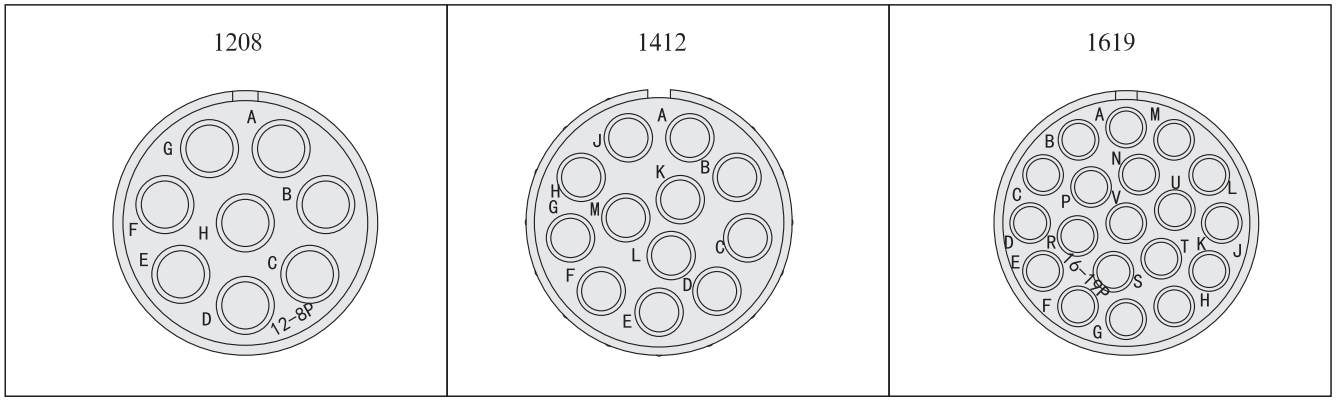
[Part number example]

CT63-01 series, 12# shell size, 08# insert arrangement, receptacle filled with pins, plug filled with sockets, black. Then the receptacle P/N is CT63-1208ZJ (BK) -01, plug P/N is CT63-1208TK (BK) -01.

Ordering information

1、Plug and receptacle are ordered separately, for detailed information please see the above table.
2、The applicable removal tool and crimping tool are also ordered separately.
1) Applicable removal tool P/N: QX-02;
2) Applicable crimping tool P/N: YDXY-02 (Mated positioner: DWQ-35) .

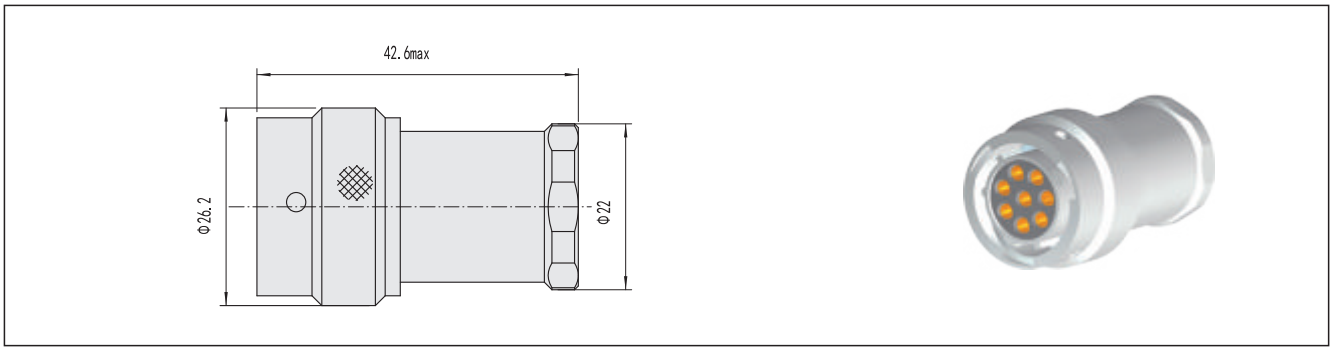
Insert arrangement (mating view of insulator with pin)



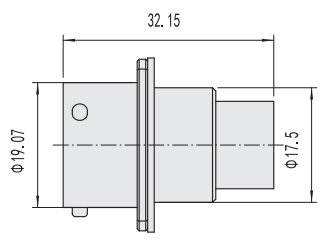
Remarks: CT63 series connector (optional accessories, non single socket sealing connector) has 10 different insert arrangements. If customers need other insert arrangement type, please contact our engineer.

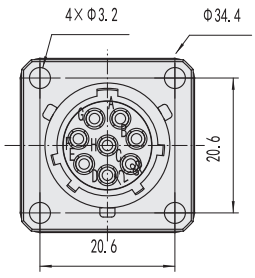
Outline dimensions

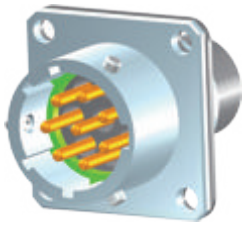
[Plug CT63-1208TK (BK) \(RE)\(GR)\(BL)\(YE)-01]



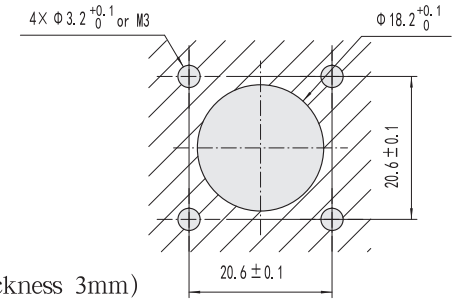
[Receptacle CT63-1208ZJ (BK) \(RE)\(GR)\(BL)\(YE)-01]







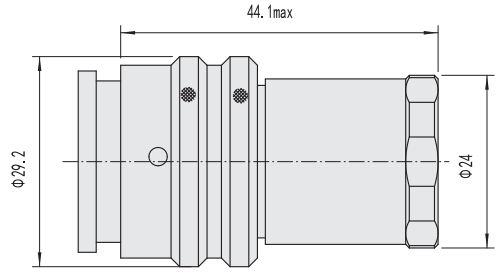
[Recommended panel cut-out dimensions]



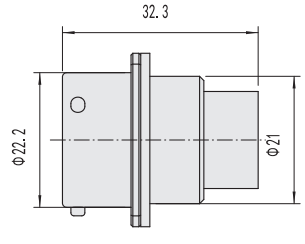
(Recommended panel minimum thickness 3mm)

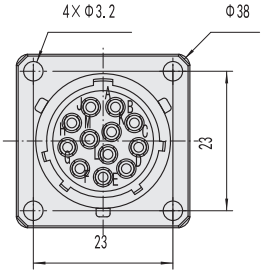
Remarks: The plug is filled with 16# socket; the plug and the sockets are packed separately. Crimped with 20AWG wire. To meet the mounting sealing standard, the wire outer diameter is ϕ1.0mm~ϕ1.5mm. The receptacle is filled with 16# pin, crimping 20 AWG wire, the water-proof degree at square flange is decided by customers. (It can change the receptacle mounting socket into blind thread socket, or add glue after normal screw mounting to ensure the sealing characteristics. The cabinet part, which connects with the cushion, should have rough surface.

[Plug CT63-1412TK (BK) \(RE)\(GR)\(BL)\(YE)-01]

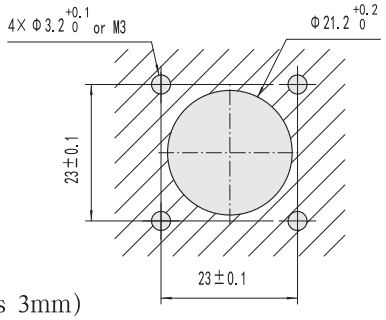


[Receptacle CT63-1412ZJ (BK) \(RE)\(GR)\(BL)\(YE)-01]





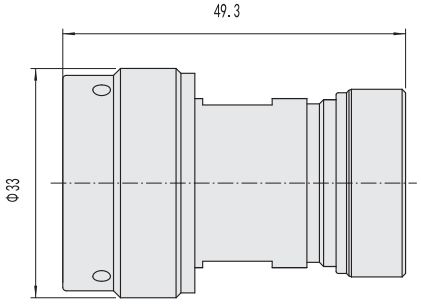
[Recommended panel cut-out dimensions]



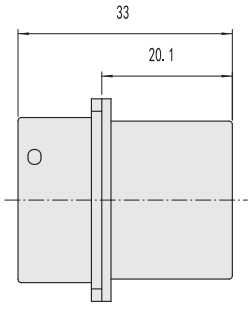
(Recommended panel minimum thickness 3mm)

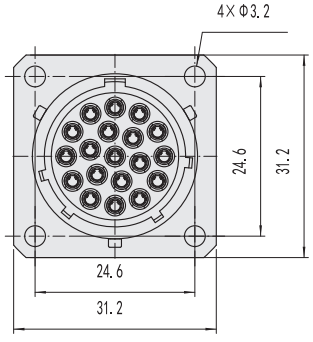
Remarks: The plug is filled with 16# pins; the plug and the pins are packed separately. Crimped with 20AWG wire. To meet the mounting sealing standard, the wire outer diameter is φ1.0mm～φ1.5mm. The receptacle is filled with 16# socket, crimping 20 AWG wire, the water-proof degree at square flange is decided by customers. (It can change the receptacle mounting socket into blind thread socket, or add glue after normal screw mounting to ensure the sealing characteristics. The cabinet part, which connects with the cushion, should have rough surface.

[Plug CT63-1619TJN\A\B\C\D-01]

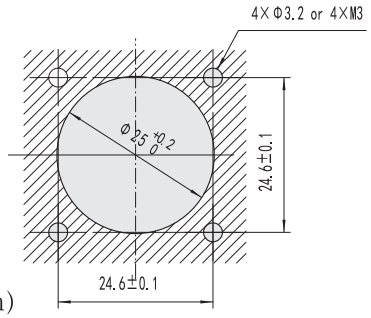


[Receptacle CT63-1619ZKN\A\B\C\D-01]





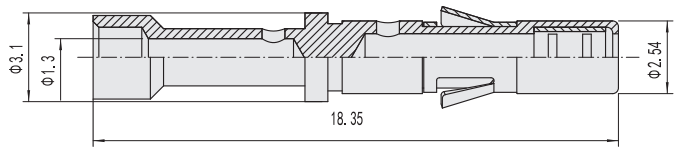
Recommended panel cut-out dimensions

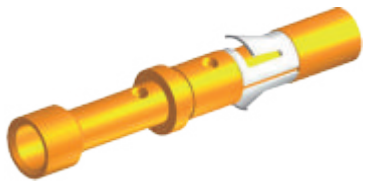


(Recommended panel minimum thickness 3mm)

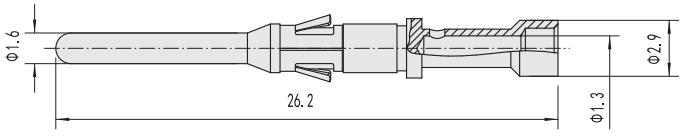
Remarks: The plug is filled with 16# socket; the plug and the sockets are packed separately. Crimped with 20AWG wire. To meet the mounting sealing standard, the wire outer diameter is ϕ1.0mm～ϕ1.5mm. The receptacle is filled with 16# pin, crimping 20 AWG wire, the water-proof degree at square flange is decided by customers. (can change the receptacle mounting socket into blind thread socket, or add glue after normal screw mounting to ensure the sealing characteristics. The cabinet part, which connects with the cushion, should has rough surface.

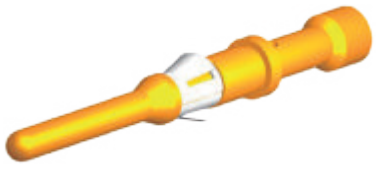
[16# socket] (Part number:21E6-571-1997-B1)





[16# pin] (Part number:21E6-570-1101-B1)





C105 series push & pull signal connectors

Brief introduction

- Crimping termination
- Five keyway available, for anti-mismating
- High reliable hyperboloid socket for soft mating and unmating, low contact resistance
- Straight quick push & pull coupling
- Applied standard: Q/21EJ1032

Application

Applied for current transmission of high voltage system within EV.

Operating environment

The product is applied for electrical connection in damp environment within EV and rainy environment.

Main technical characteristics

[Mechanical]

——Shell: aluminum alloy, oxidized
——Insulator: PBT
——Grommet and seal: Silicon rubber
——Contact: copper alloy, gold plating,
High-current power contact: silver plating
——Vibration: frequency: 10-2000Hz,
acceleration: 196m/s^2
——Shock: acceleration 980m/s^2
——Endurance: 500 cycles

[Environmental]

——Operating temperature: -55℃ ~ 110℃
——Relative humidity: 95% at 40℃
——Protection degree: IP67 (this is secured by customers during installation)
——Salt spray: 48 hours

[Electrical]

——Contact resistance and rating current:

Contact size mm	Contact resistance mΩ	Rating current A	Applicable wire
20#	5	5	0.5 mm^2
16#	3	13	1.3 mm^2
ϕ2.0	1.25	20	12AWG
ϕ3.0	0.75	15	1.3 mm^2
		40	3.3-5.2 mm^2
ϕ8.0	3	130	25 mm^2
ϕ12	0.25	250	50 mm^2

Notes:
the current is decided by applicable wire, for detailed information please see the datasheet.

——Rating voltage, withstanding voltage (V) and insulation resistance (MΩ):

Contact number	Rating voltage (normal)	Withstanding voltage (normal)	Insulation resistance (normal)
1	600 AC	2500 AC	⩾5000
2	600 AC	2500 AC	⩾5000
3	300 AC	2500 AC	⩾5000
4	600 AC	2500 AC	⩾5000
5	390 AC	2500 AC	⩾5000
6	24 AC	2000 AC	⩾5000
7	600 AC	3000 AC	⩾5000
8	600 AC	2000 AC	⩾5000
9	24V AC	1500 AC	⩾5000

Notes:
the above data is the voltage of power contacts; for the data of signal contacts please contact us.

Signal and power connectors

Ordering information

Basic series		C105	14	N	1	−02	−1	−2	G00X
Shell size	14 16 18								
Polarization	N W X Y Z								
Plating	1—nickel plating 2—satin nickel plating 40—stainless steel passive								
Contact number	1～ 9 contacts								
Connector type	−1—normal plug −3—square flange receptacle −4—jam nut receptacle −6—circular flange receptacle								
Contact and plating	−1−pin, gold plating −2−socket, gold plating								
Alternative code	G00X means different rear side lead−out or different crimp bucket diameter X stands for numbers 1, 2, 3…								

Notes: 250A product is with silver plating; the above information is ordering instructions, for further questions please contact us.

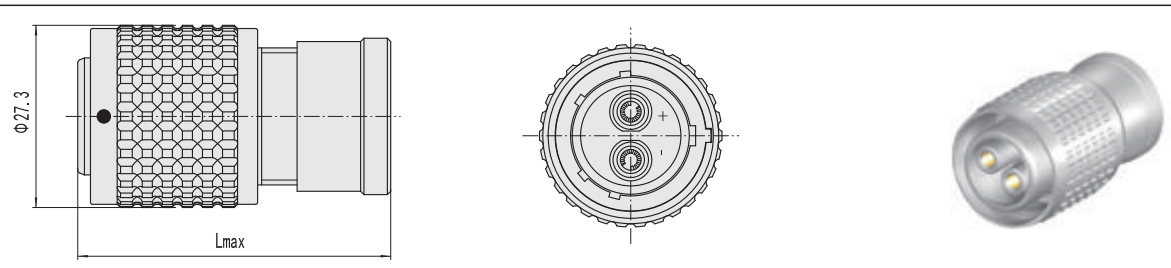
[Part number example]

C10514N1−02−1−2 G001

C105 series push & pull plug, shell size 14#, N polarization, nickel plating, 2 contacts, gold plated sockets.

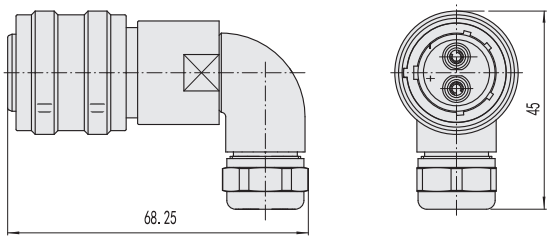
Outline dimensions

[Straight plug]



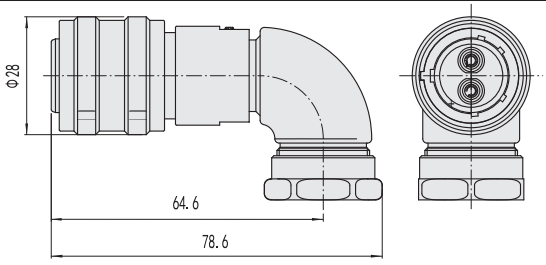
Part number	L	crimp boot dia.	Grommet lead−out dia.	Sealing type
C10514N1−02−1−2	44.8	φ3.6	φ2.3～φ3.9	Single wire
C10514N1−02−1−2 G001	46.8	φ1.8	φ2.3～φ3.9	Single wire
C10514N1−02−1−2 G002	44.9	φ3.6	φ5.5	Single wire
C10514N1−02−1−2 G003	44.9	φ3.6	φ6.5	Single wire
C10514N1−02−1−2 G004	46.8	φ3.6	φ5.5	Single wire
C10514N1−02−1−2 G009	48.9	φ3.6	φ8.0～φ10.0	Finished cable
C10514N1−02−1−2 G017	44.8	φ3.6	φ2.3～φ3.9	Single wire
Notes: C10514N1−02−1−2 G017 is added with color band mark.				

[Right-angle plug]



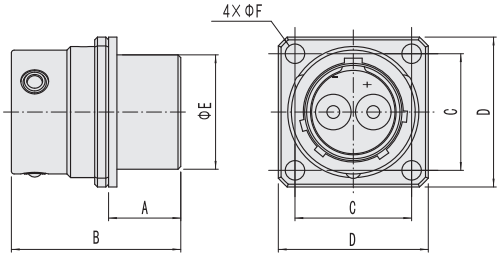
Part number	Crimp bucket dia.	Grommet lead-out dia.	Sealing type
C10514N1-02-1-2 G010	ϕ3.6	ϕ8.0~ ϕ10.0	Finished cable
C10514N1-02-1-2 G014	ϕ3.6	ϕ2.5~ ϕ4.5	Single wire

[Right-angle plug]



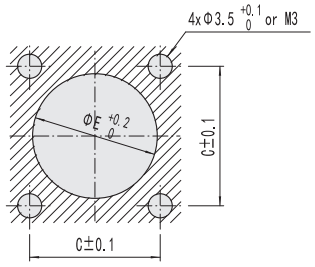
Part number	Crimp bucket dia.	Grommet lead-out dia.	Sealing type
C10514N1-02-1-2 G013	ϕ3.6	ϕ10.0~ ϕ12.0	Finished cable
C10514N1-02-1-2 G016	ϕ2.5	ϕ10.0~ ϕ12.0	Finished cable

[Square flange receptacle]

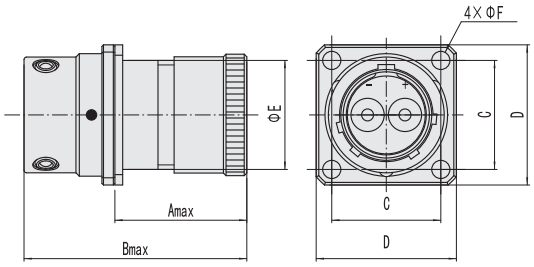


Part number	A	B	C	D	E	F	Crimp bucket dia.
C10514N1-02-3-1 G001	13	30.5	21	27	20.6	3.5	ϕ1.8
C10514N1-02-3-1 G004	13	30.5	21	27	20.6	3.5	ϕ3.4
C10514N1-02-3-1 G012	13	30.5	23	31	20.6	3.5	ϕ3.4
C10514N1-02-3-1 G015	11.5	29	22	29	19.5	3.5	ϕ3.4

[Recommended panel cut-out dimensions]

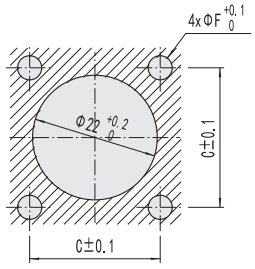


[Square flange receptacle]

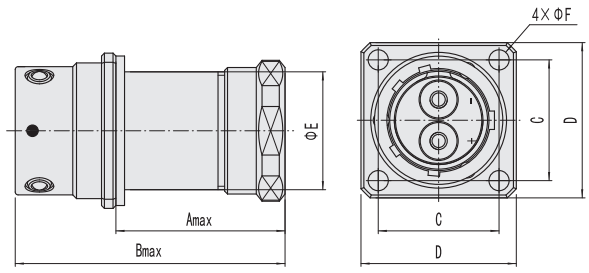


Part number	A	B	C	D	E	F	Crimp bucket dia.	Grommet lead-out dia.	Sealing type
C10514N1-02-3-1	25.4	42.9	21	27	20.6	3.5	ϕ3.4	ϕ2.3~ϕ3.9	Single wire
C10514N1-02-3-1 G002	25.4	42.9	21	27	20.6	3.5	ϕ3.4	ϕ5.5	Single wire
C10514N1-02-3-1 G003	25.4	42.9	21	27	20.6	3.5	ϕ3.4	ϕ6.5	Single wire

[Recommended panel cut-out dimensions]

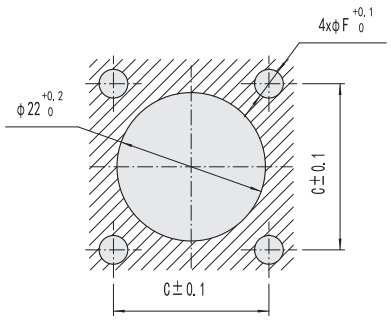


[Square flange receptacle]

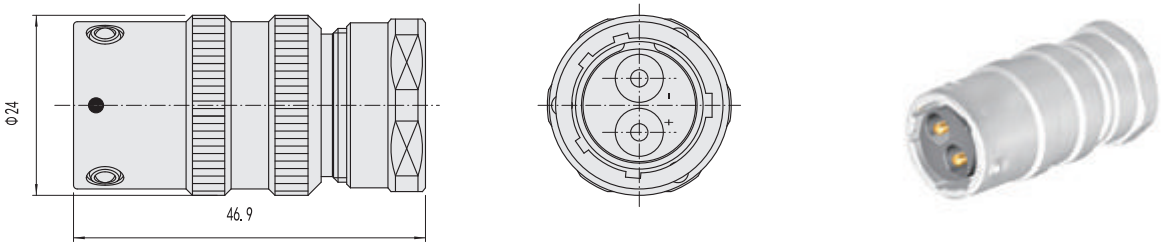


Part number	A	B	C	D	E	F	Crimp bucket dia.	Grommet lead-out dia.	Sealing type
C10514N1-02-3-1 G009	29.4	46.9	21	27	20.6	3.5	ϕ3.4	ϕ10	Finished cable
C10514N1-02-3-1 G014	29.4	46.9	26	35	20.6	4.5	ϕ3.4	ϕ10	Finished cable

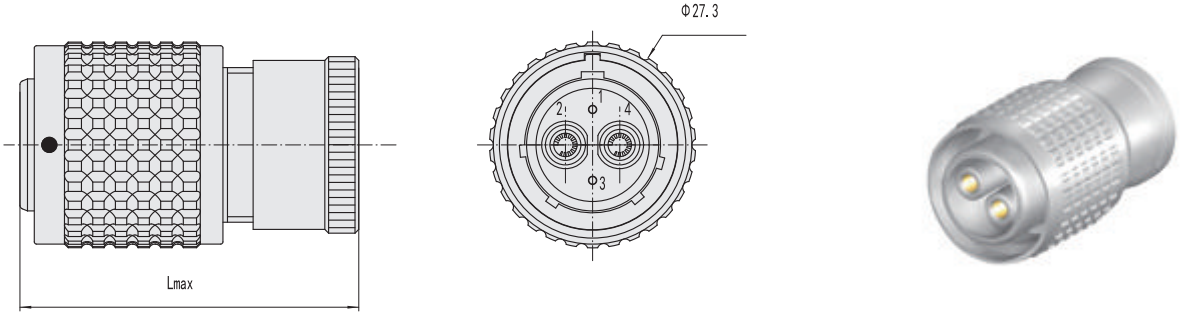
[Recommended panel cut-out dimensions]



[Circular flange receptacle]

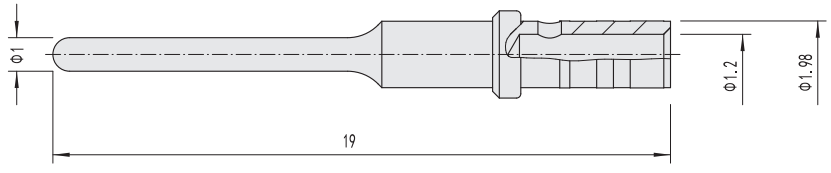


[Straight plug]

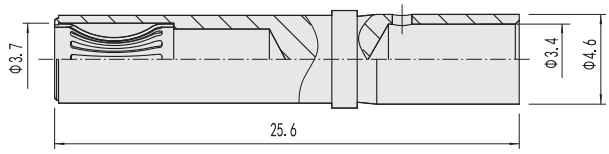


Part number	L	Crimp bucket dia.		Grommet lead-out dia.		Sealing type
C10514N1-04-1-2	44.9	φ3.6	φ1.2	φ2.3~φ3.9	φ1.4~φ2.9	Single wire
C10514N1-04-1-2 G001	46.9	φ3.6	φ1.2	φ3.0~φ5.0	φ1.5~φ3.3	Single wire

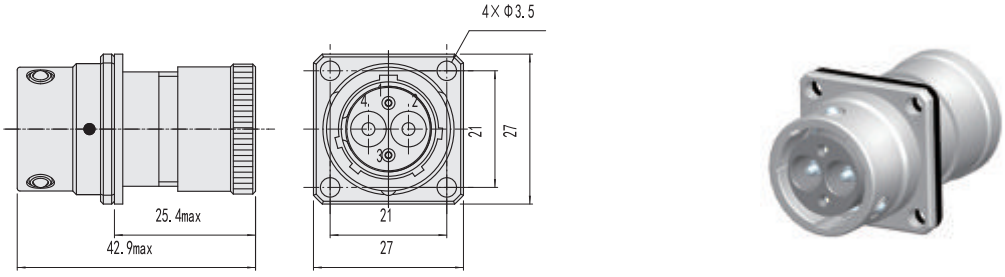
[20# pin]



[ϕ3 socket]

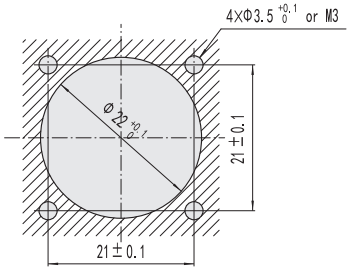


[Square flange receptacle] (C10514N1-04-3-1)

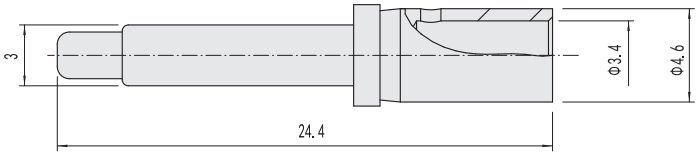


Part number	Crimp bucket dia.		Grommet lead-out dia.		Sealing type
C10514N1-04-3-1	ϕ3.4	ϕ1.2	ϕ2.3~ϕ3.9	ϕ1.4~ϕ2.9	Single wire
C10514N1-04-1-2 G001	ϕ3.4	ϕ1.2	ϕ3.0~ϕ5.0	ϕ1.5~ϕ3.3	Single wire

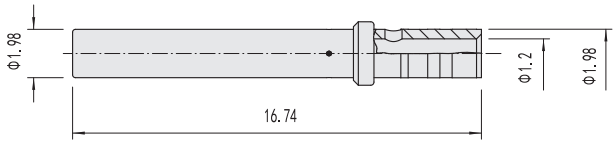
[Recommended panel cut-out dimensions]



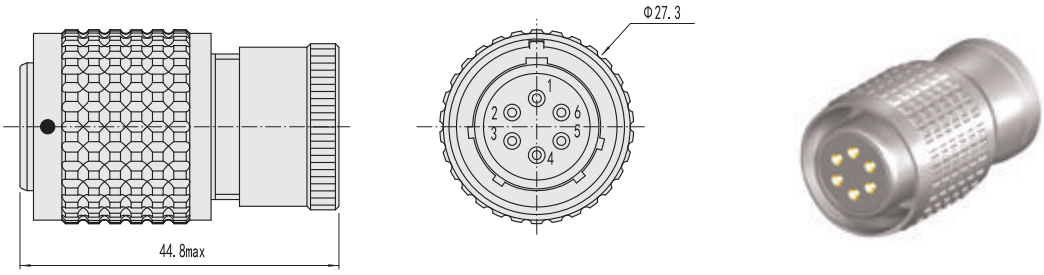
[ϕ3 pin]



[20# socket]

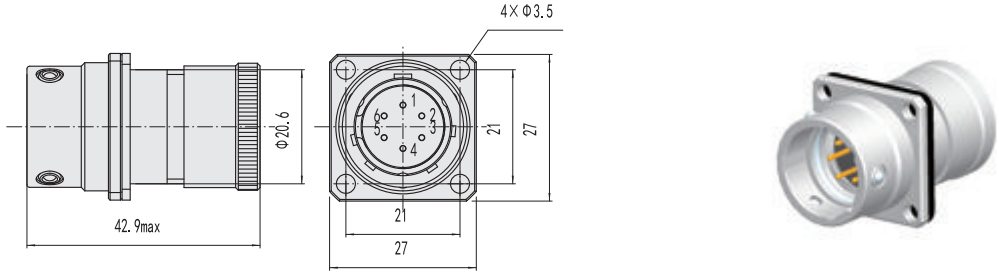


[Straight plug]



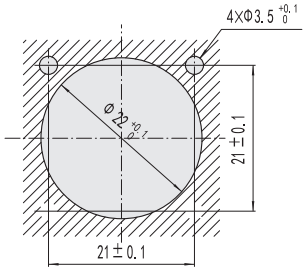
Part number	Crimp bucket dia.	Grommet lead-out dia.	Sealing type
C10514N1-06-1-2	φ1.2	φ1.4～φ2.9	Single wire
C10514N1-06-1-2 G002	φ1.2	φ1.5～φ3.3	Single wire

[Square flange receptacle]

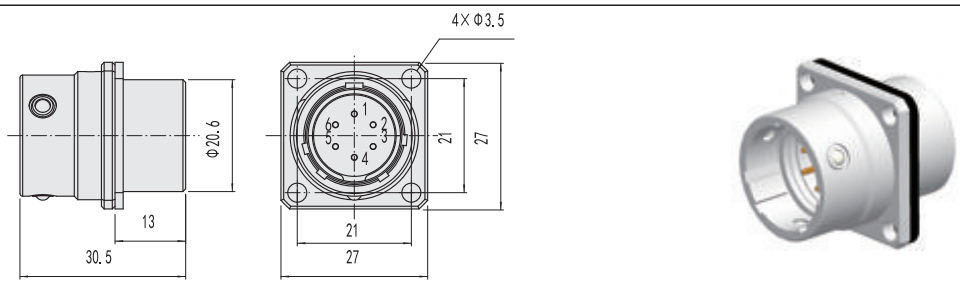


Part number	Crimp bucket dia.	Grommet lead-out dia.	Sealing type
C10514N1-06-3-1	φ1.2	φ1.4～φ2.9	Single wire
C10514N1-06-3-1 G002	φ1.2	φ1.5～φ3.3	Single wire

[Recommended panel cut-out dimensions]

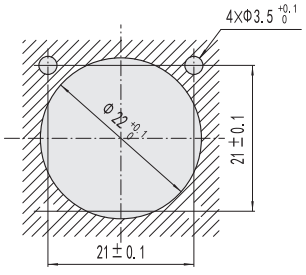


[Square flange receptacle]

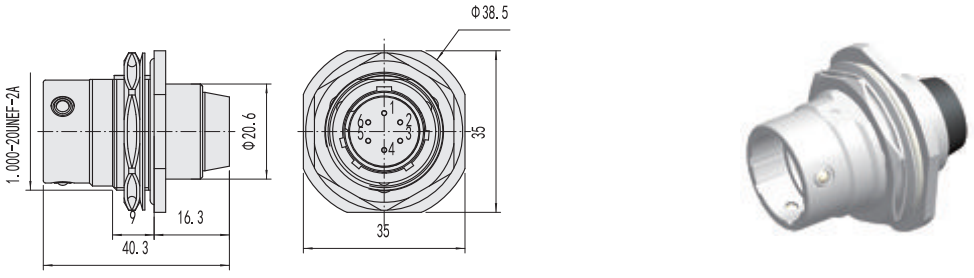


Part number	Crimp bucket dia.
C10514N1-06-3-1 G001	φ1.2

[Recommended panel cut-out dimensions]

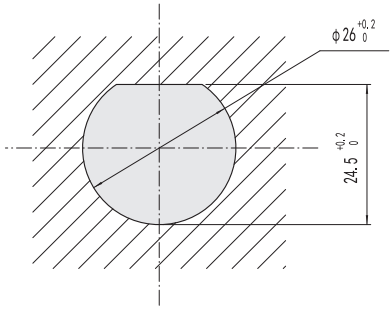


[jam nut receptacle]



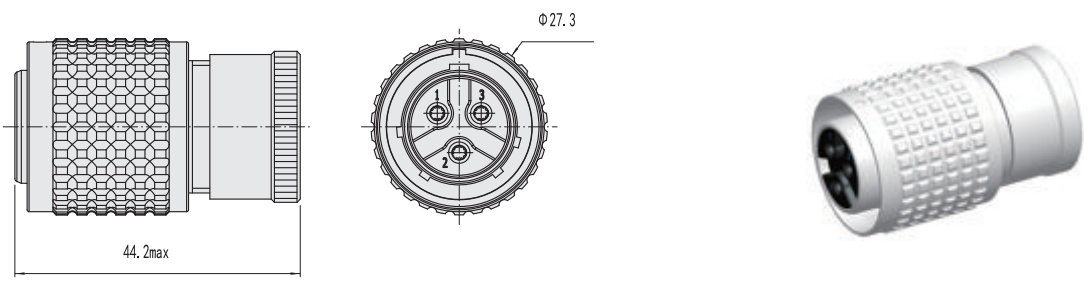
Part number	Crimp bucket dia.
C10514N1-06-4-1 G001	φ1.2

[Recommended panel cut-out dimensions]



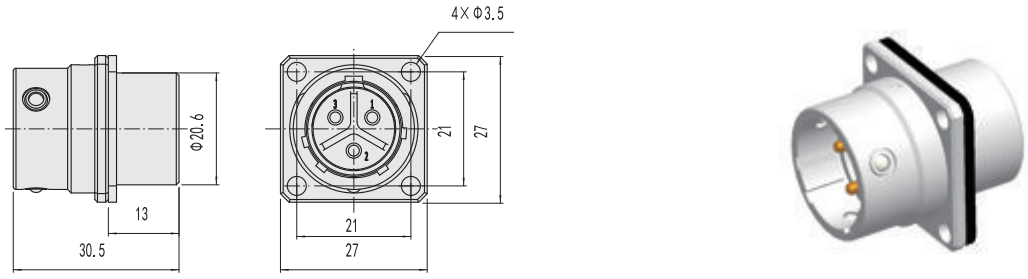
Panel thickness: 0.5mm≤t≤3.5mm

[Straight plug]



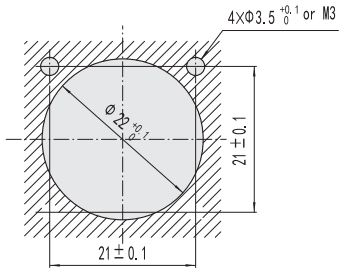
Part number	Crimp bucket dia.	Grommet lead-out dia.	Sealing type
C10514N1-03-1-2	φ2.5	φ3.4~φ4.5	Single wire

[Square flange receptacle]

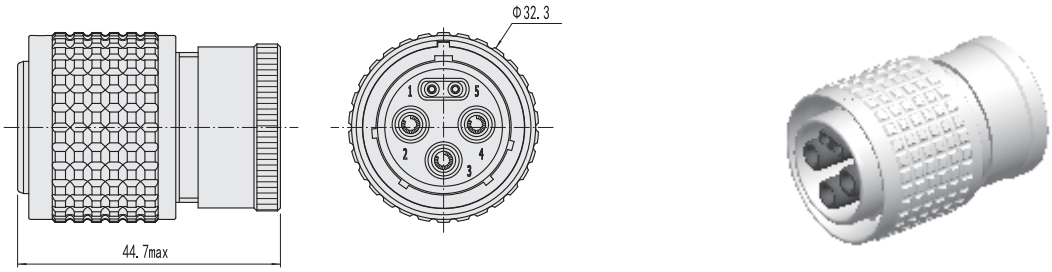


Part number	Crimp bucket dia.
C10514N1-03-3-1	φ2.5

[Recommended panel cut-out dimensions]

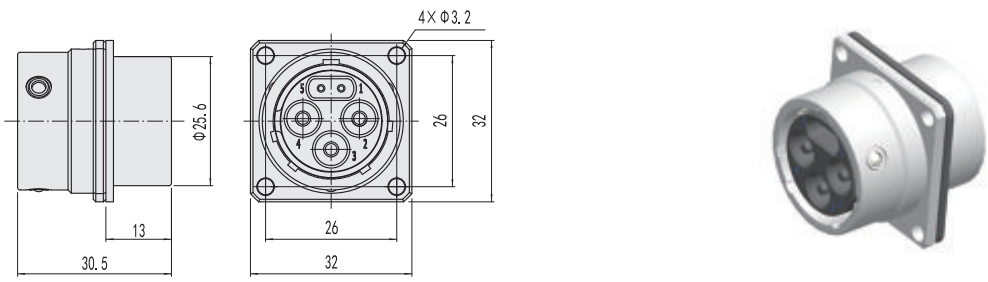


[straight plug]



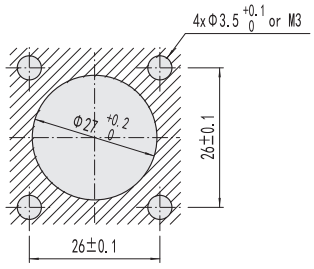
Part number	Crimp bucket dia.		Grommet lead-out dia.		Sealing type
C10518N1-05-1-2	φ3.6	φ1.05	φ3.3~φ4.0	φ2.0~φ2.5	Single wire

[Square flange receptacle]

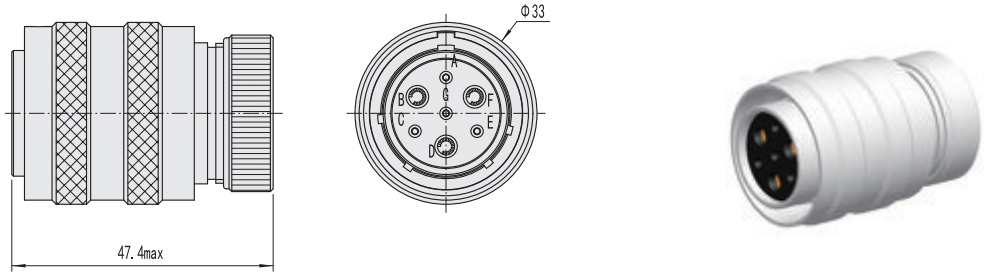


Part number	Crimp bucket dia.	
C10518N1-05-3-1	φ3.4	φ1.05

[Recommended panel cut-out dimensions]

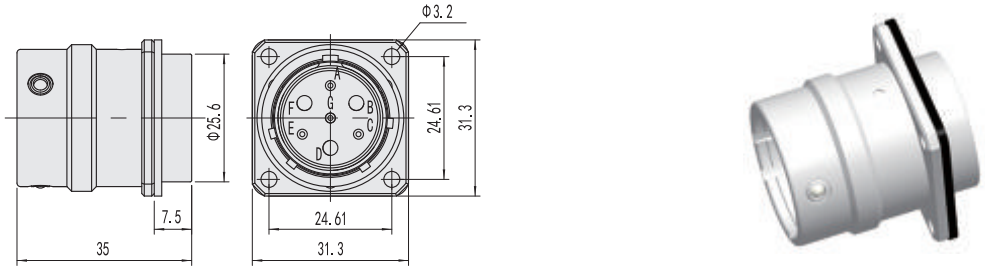


[Straight plug]



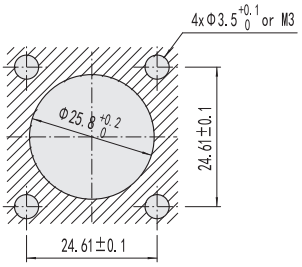
Part number	Crimp bucket dia.		Grommet lead-out dia.		Sealing type
C10516N1-07-1-2	φ3.6	φ1.2	φ3.4~φ5.0	φ1.3~φ2.5	Single wire

[Square flange receptacle]

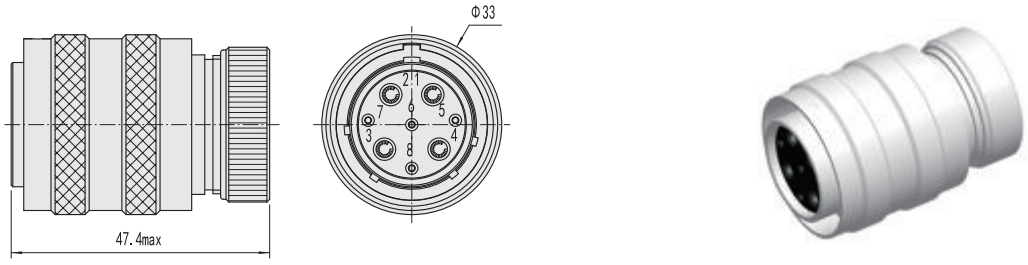


Part number	Crimp bucket dia.	
C10516N1-07-3-1	φ3.4	φ1.2

[Recommended panel cut-out dimensions]

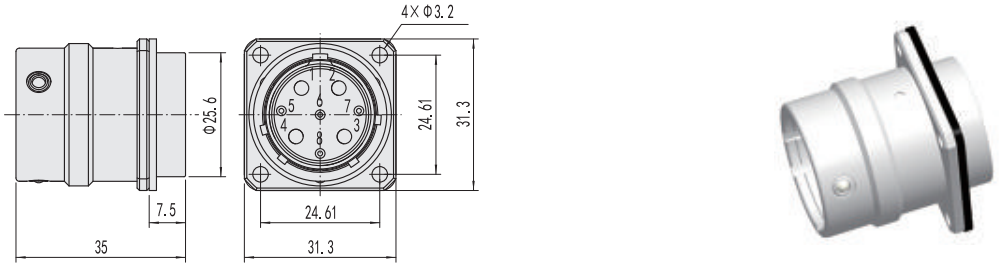


[Straight plug]



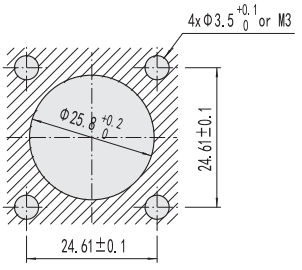
Part number	Crimp bucket dia.		Grommet lead-out dia.		Sealing type
C10516N1-08-1-2	ϕ3.6	ϕ1.2	ϕ3.4~ϕ5.0	ϕ1.2~ϕ2.2	Single wire

[Square flange receptacle]

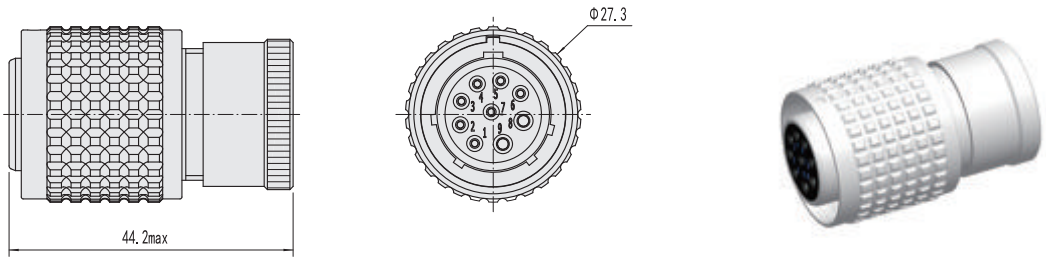


Part number	Crimp bucket dia.	
C10516N1-08-3-1	ϕ3.4	ϕ1.2

[Recommended panel cut-out dimensions]

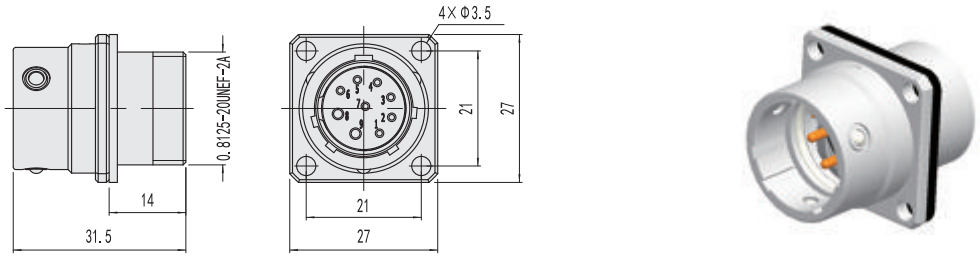


[Straight plug]



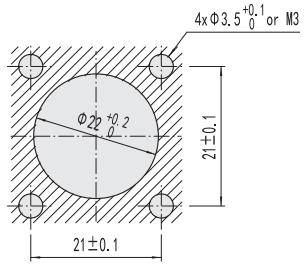
Part number	Crimp bucket dia.		Grommet lead-out dia.		Sealing type
C10514N1-09-1-2	φ1.7	φ1.05	φ2.3~φ3.0	φ2.0~φ2.5	Single wire

[Square flange receptacle]

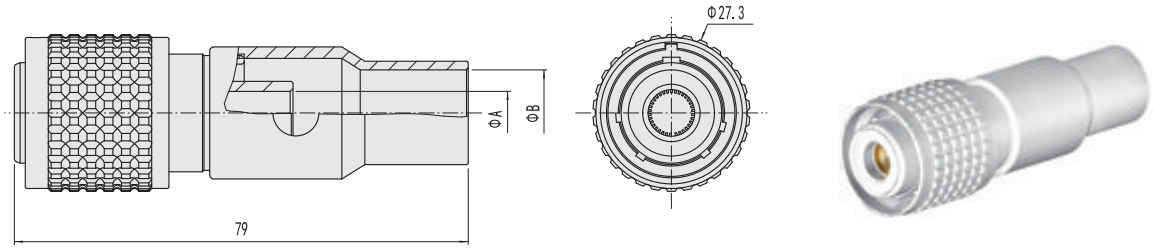


Part number	Crimp bucket dia.	
C10514N1-09-3-1	φ1.7	φ1.05

[Recommended panel cut-out dimensions]

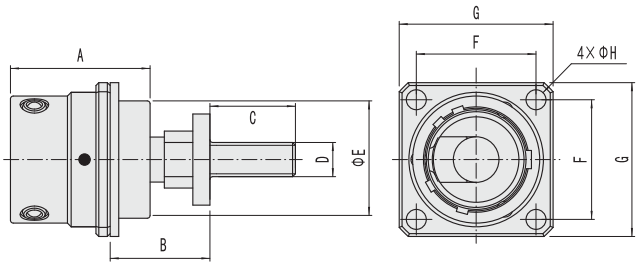


[Straight plug]



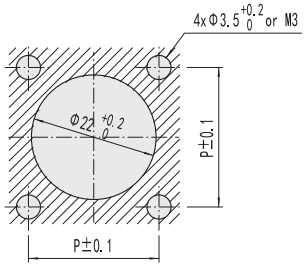
Part number	A	B
C10514N1-01-1-2G005	φ7.5	15
C10514N1-01-1-2G006	φ4.57	15
C10514N1-01-1-2G008	φ8.5	15

[Square flange receptacle]

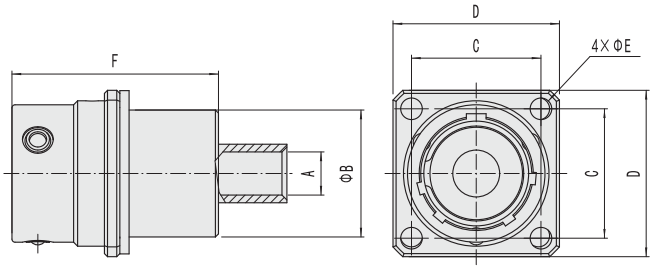


Part number	A	B	C	D	E	F	G	H
C10514N1-01-3-1	24.5	17.5	15	M6	20.6	21	27	3.5
C10514N1-01-3-1G001	24.5	17.5	12	M6	20.6	21	27	3.5
C10514N1-01-3-1G003	24.5	17.5	18	M8	20.6	22.6	28.6	3.5

[Recommended panel cut-out dimensions]

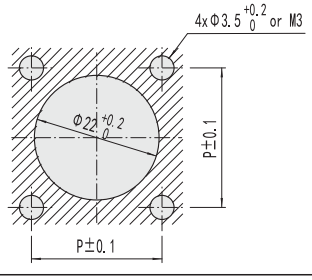


[Square flange receptacle]

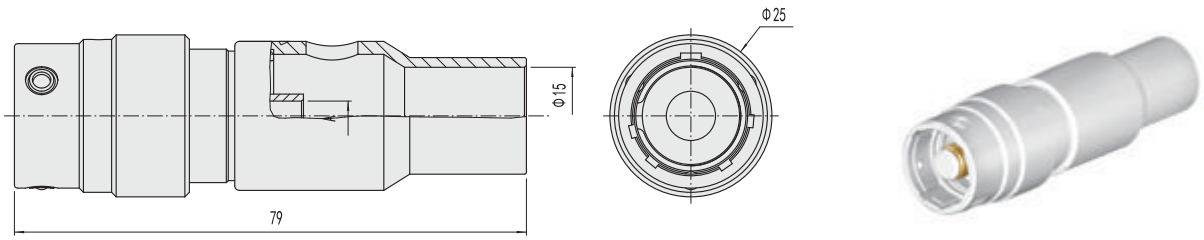


Part number	A	B	C	D	E	F
C10514N1-01-3-1G002	7	20.6	21	27	3.5	33.5
C10514N1-01-3-1G008	8.5	20.6	21	27	3.5	33.5

[Recommended panel cut-out dimensions]

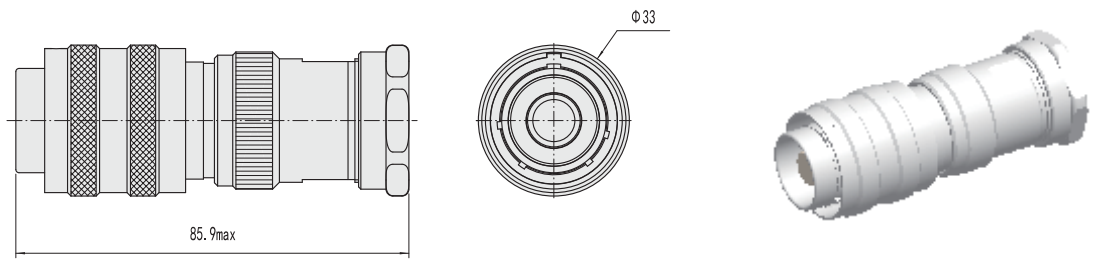


[Circular flange receptacle]



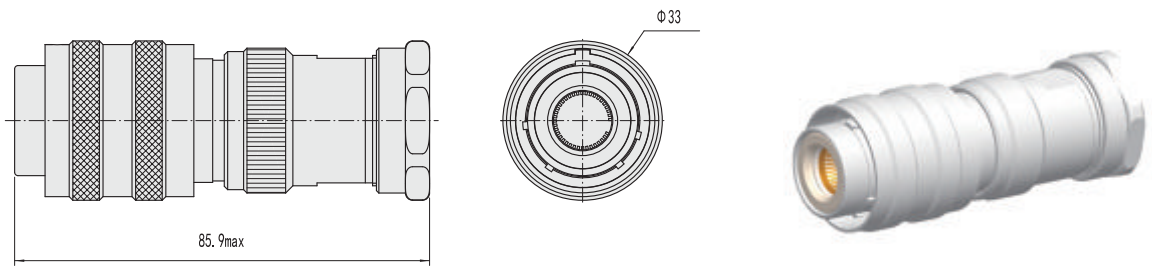
Part number	A
C10514N1-01-6-1G005	ϕ7
C10514N1-01-6-1G006	ϕ4.57
C10514N1-01-6-1G008	ϕ8.5

[Straight plug]



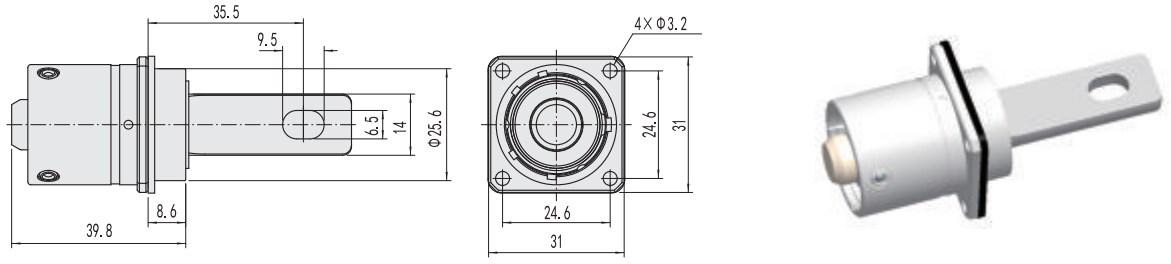
Part number	Crimp bucket dia.	Lead-out dia.
C10516N1-01-1-1	ϕ9.4	ϕ18

[Straight plug]



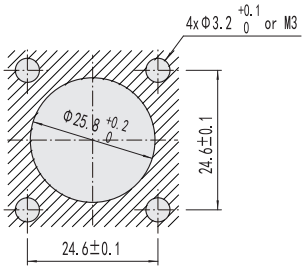
Part number	Crimp bucket dia.	Lead-out dia.
C10516N1-01-1-2	ϕ9.4	ϕ18

[Square flange receptacle]

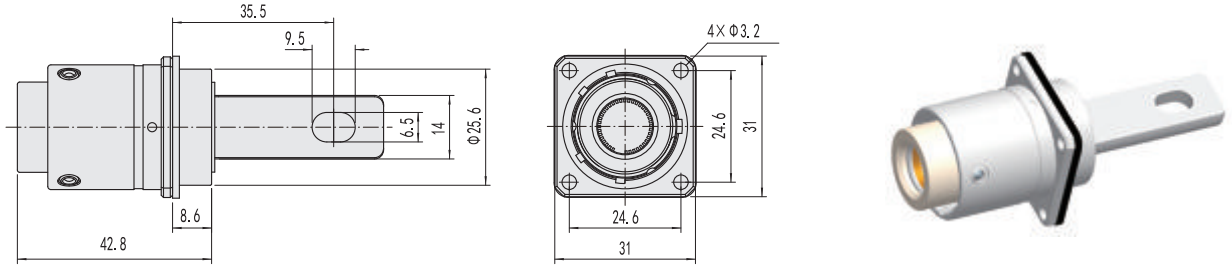


Part number	Applicable screw
C10516N1-01-3-1	M6

[Recommended panel cut-out dimensions]

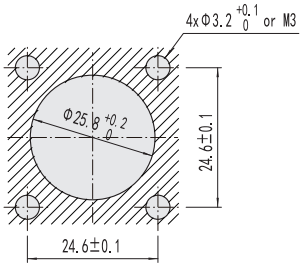


[Square flange receptacle]



Part number	Applicable screw
C10516N1-01-3-2	M6

[Recommended panel cut-out dimensions]



High voltage distribution box (designed according to customers' need and the vehicle type) Power distribution box

Brief introduction

- Distribution box, battery to PTC heater, machine controller, air conditioner, DC/DC power distribution box
- PDU current distribution, short circuit protection and over load protection
- Micro-switch design at the joint of the case cover and the box, the controlling wire is lead out to the vehicle control system, it ensures high voltage protection
- Protection degree: IP66

Application

This product is applied in EV inside environemnt, for current distribution,safty protection, and high voltage interlock.

Operating environment

The product is used under the vehicle front cover.

Product part number

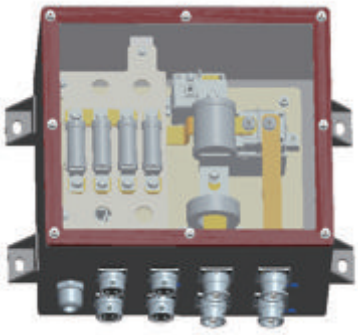
BX1-178 BX-219

Main technical characteristics

——Operating temperature: -40℃～100℃
——Vibration: according to QC/T413-2002
——Frequency: 25～500Hz
——Z direction acceleration 30m/s^2, amplitude 1.2mm
——Y direction acceleration 15m/s^2, amplitude 0.6mm
——X direction acceleration 15m/s^2, amplitude 0.6mm; each direction 8h.
(The box mounting direction is Z direction)
——Salt spray: 48h

High voltage box

Brief introduction



- High voltage control to achieve charging control loop, machine control loop, pre-charging control loop. Each loop has a fuse to ensure safety, and is controlled by high voltage relay. When the vehicle is driving normally, the charging and pre-charging loop relay separates; when the vehicle stops charging, the charging control loop relay keep working. Layered structure, service cover and convenient operation.
- Discharging and charging have interlock function, the power distribution box battery loop has hall current sensor. There is also an insulation detector in the power distribution system(The relay can adopt 750VDC high voltage)

Application

The product is applied in EV high voltage protection and low voltage control high voltage.

Operating environment

The product is mounted under the EV front cover or at the undercarriage.

Product part number

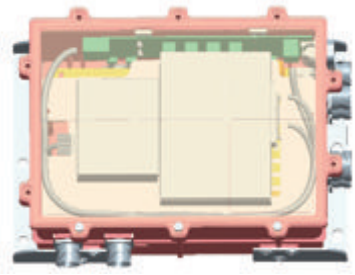
BX1-250 BX1-244

Main technical characteristics

——Protection degree: IP66
——Operating temperature: -40° ~100℃
——Vibration: according to QC/T413-2002
——Frequency: 25~500Hz, Z direction acceleration 30m/s^2, amplitude 1.2mm;
Y direction acceleration 15m/s^2, amplitude 0.6mm;
X direction acceleration 15m/s^2, amplitude 0.6mm; each direction 8h.
(The box mounting direction is Z direction)
——Salt spray: 48h

Control box

Brief introduction



- Weak current controls strong current through relay. The control box protects the battery in charging. When the circuit is over load, the according fuse will be disconnected and protects the EV. Meanwhile, the control box also contains CAN transmission, high voltage sampling, etc.
- Low voltage control integrated product, contains a high voltage control box and BMS box. The low voltage control loop adopts PCB integrated controlling.
- Protection degree: IP66

Application

The product is applied in EV high voltage protection, low voltage control high voltage, integrated BMS box and high voltage box.

Operating environment

The product is mounted under the EV front cover or at the undercarriage.

Product part number

BX1—161

Main technical characteristics

——Operating temperature: −40℃～100℃
——Vibration: according to QC/T413—2002
——Frequency: 25～500Hz, Z direction acceleration 30m/s², amplitude 1.2mm;
Y direction acceleration 15m/s², amplitude 0.6mm
X direction acceleration 15m/s², amplitude 0.6mm; each direction 8h.
(The box mounting direction is Z direction)
——Salt spray: 48h

JX49 Terminals

Brief introduction

- Terminals, convenient operation
- Shielding
- Protection degree: IP66 (JX49-25 meet IP67, consult engineer for more information.)

Application

The product is applied in EV machine control box, instead of the metal shielding plug.

Operating environment

It is applied in EV inside environment. The products meet EV shielding and sealing requirements.

Main technical characteristics

——Operating temperature: -40℃ ~ +125℃
——Salt spray: 144 hours

Ordering information

Basic series		JX49	-50/35/25	-01	A
Applicable cable	50—50mm² single core shielding cable				
	35—35mm² single core shielding cable				
	25—25mm² single core shielding cable				
Alternative code	-01				
Anti mis-mating	A: (Only JX49-35-01 has 3 anti mis-mating polarizations, the part numbers are JX49-35-01A, JX49-35-01B, JX49-35-01C				

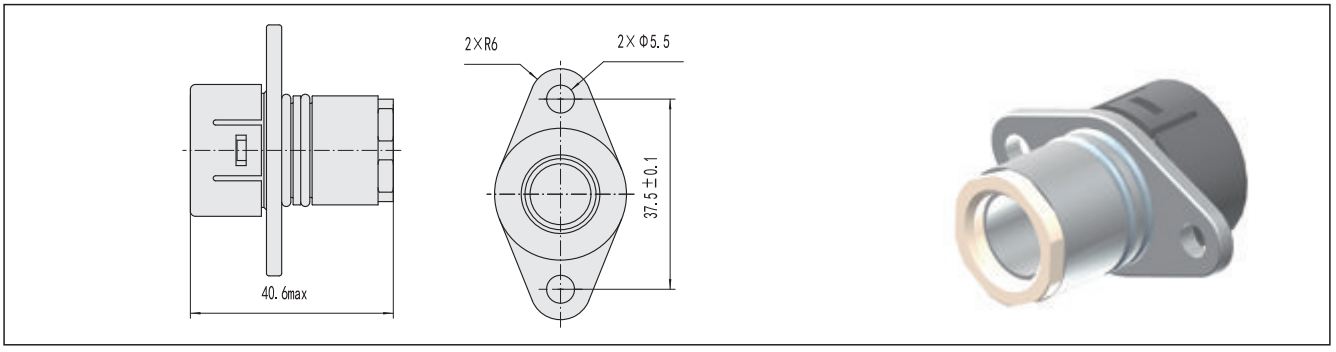
[Part number example]

JX49 series, mated with 1*35mm² single core shielding cable, need anti mis-mating function, the part number is JX49-35-01A, JX49-35-01B or JX49-35-01C.

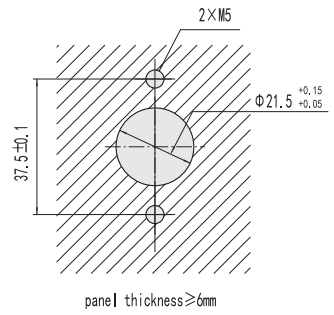
Outline dimensions

[JX49-25, JX49-35]

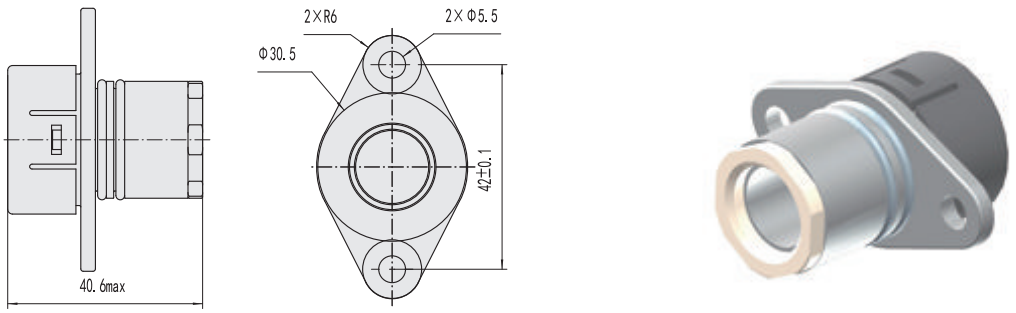
(the two types have the same outline dimension, only the entry sealing rings are of different size)



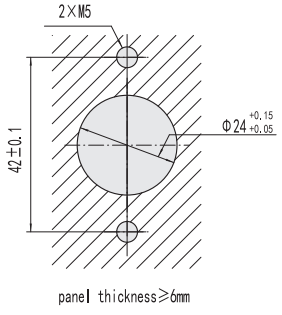
[Recommended panel cut-out dimensions]



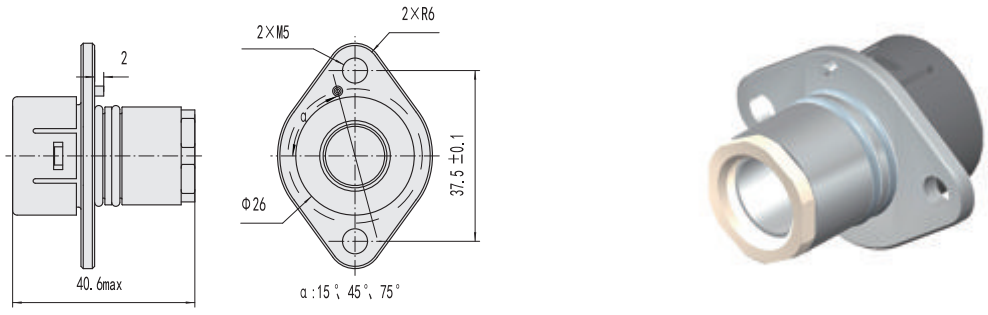
[JX49-50]



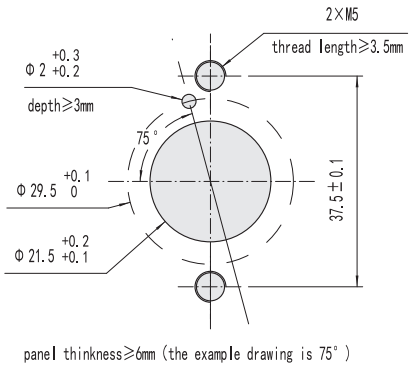
[Recommended panel cut-out dimensions]



[JX49-35-01A/B/C]



Recommended panel cut-out dimensions



panel thinkness≥6mm (the example drawing is 75°)

Cable harness for EV

Brief introduction

In EV system, the transmission of electricity and signal is achieved by cable harness. According to the EV industry requirement, our company developed EV cable harness and power distribution system on the basis of traditional cable harness. EV cable harness has characteristics as below:

- High voltage, heavy current: designed according to the high voltage power connection system of EV; it meets the power transmission requirement.
- Insulation: designed to protect customers from electric shock in using, ensures customers' safety.
- Integrated: designed according to the EV feature. In EV system, high and low current both existed; this design meets different current transmission requirement.
- Reliable: the cable harness is designed with high reliable performance to protect the electric vehicles from faults.
- Environmental performance: the cable harness has a wide range of environmental performance, ensures the electric vehicles be driven in various environment.
- Excellent shielding: as the high current transmission in electric vehicles will cause EMI disturb, the cable harness is designed to reduce the interference to minimum.
- Excellent protection: as the electric vehicles may be driven in various weather and environment, the cable harness is designed with dust proof and water proof features to protect the electric vehicles.

High current cable parameter

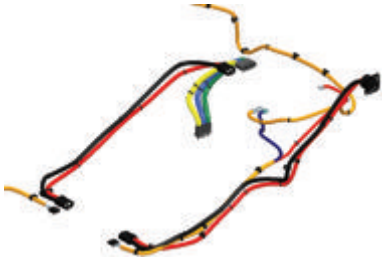
——Our company provide high current cable types as below:

Nominal section mm^2	20℃ max resistance mΩ/m	Insulation cable OD mm	Shielding layer dia.	Sleeve OD mm
15	1.2	8.1	T×0.15	11.2±0.4
20	0.907	9.2	T×0.15	12.4±0.4
25	0.743	9.9	T×0.15	13.1±0.4
35	0.554	11.4	T×0.15	14.8±0.4
50	0.386	13.5	T×0.15	17.1±0.4
70	0.272	15.5	T×0.15	19.2±0.4

Remarks: ①High current cable type can be developed according to customers' need.
②For low current cables, we have a complete range of standard. Not listed here.

Structure

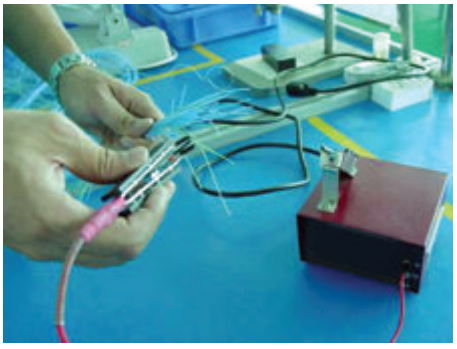
Provide high voltage cable harness, signal type cable harness and EV cable harness connection solutions.

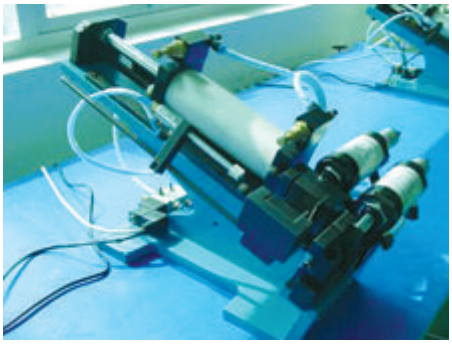
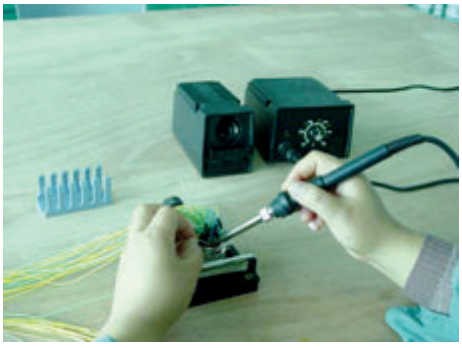


Inter-connect cable harness between high voltage equipment of EV

Charging connection type cable harness

Cable harness processing technology and equipment

Wire cutting and stripping: Use automatic wire stripper, the wire can be cut and stripped into different length.	
For some extreme thin wire, use hot strip clamp. It can strip the thin wire (minimum 0.07mm^2), and doesn't hurt the core.	

For some thick wires or the wires with thick cover (max diameter 300mm^2), use pneumatic wire stripping machine.	
Crimping: Use automatic terminal crimp machine. Work with the according crimp mould, it can crimp different terminal types.	
Soldering: Electric soldering iron Use iron head of different diameter to solder the according wires.	
Fusion welding of wire spring pin: Terminal fusion welding machine. It gives welding treatment of wire spring pin products.	

Cable harness test equipment and technique process

Automatic cable tester: It tests cable's electrical performance, such as withstanding voltage, insulation resistance, on-off, etc. Work with the according junction box, it can do test of different cable types, including multi-ends cable. It can also test the electric characteristics of connectors.	
LCD electronic tensile strength tester: Test the tensile strength of terminals and contacts after crimping or soldering.	
Contact resistance tester: Test the contact resistance of the wire and the contacts.	

Leak current tester: (Insulation resistance tester) Test the insulation resistance between wires, contacts and shells.	
Withstanding voltage tester: Test the withstanding voltage between wires, contacts and shells.	
Coaxial microscope: Examine the welding quality of the wire spring pins and the wire welding spot.	

EV connectors assembly line

Jonhon e-bike Cable Assemblies

Brief introduction

- New Jonhon cable assemblies with waterproof data & power connectors in smallest dimensions can be used in various LEV's, e.g. in modern e-bikes or scooters.The contact system conforms to EPAC Bicycles standard(DIN EN 15194).

Order Information

Product name explanation:

No.	Item	Remark	Mark
1	Series name	e-bike cable assembly	EB
2	Structure character	Max. diameter: Φ5	A
		Max. diameter: Φ7	B
		Max. diameter: Φ10	C
		Max. diameter: Φ5	D
3	Contact number	2 Pin	2
		3 Pin	3
		4 Pin	4
4	Contact style	Male (load pin)	M
		Female (load socket)	F
5	Contact plating	Gold Plated	1
		Silver Plated	2
		Tin Plating	3
6	Diameter of the cable	S+ cable diameter	Sxxx
7	Length of the cable	L=XXX(unit: mm)	L=xxx
8	Variant code		-001、-002、-003…

EB① - ×② - ×××③④⑤ - ×⑥ ×⑦

- ⑦ Cable length
- ⑥ Cable diameter
- ⑤ Contact plating
- ④ Contact style
- ③ Contact number
- ② Structure character
- ① Series name

[Part number example]

EB-A-4M1-S3.6L=500

structure "A" (Max. diameter is Φ5mm), 4 gold plated pins, the cable diameter is Φ3.6mm, the length of cable is 500mm.

Remark

The length of the cable can be changed according to the requirement of the customers.

2 Pin Data connector-A

[Connector Features]

- 2 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter ϕ5mm
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure 2×0.25mm^2 wires
- Insulation PVC(brown/black)
- Jacket TPU black
- Outer diameter ϕ3.6mm

[Applications]

- LEV's /scooters/ e-bikes

[Electrical Performance]

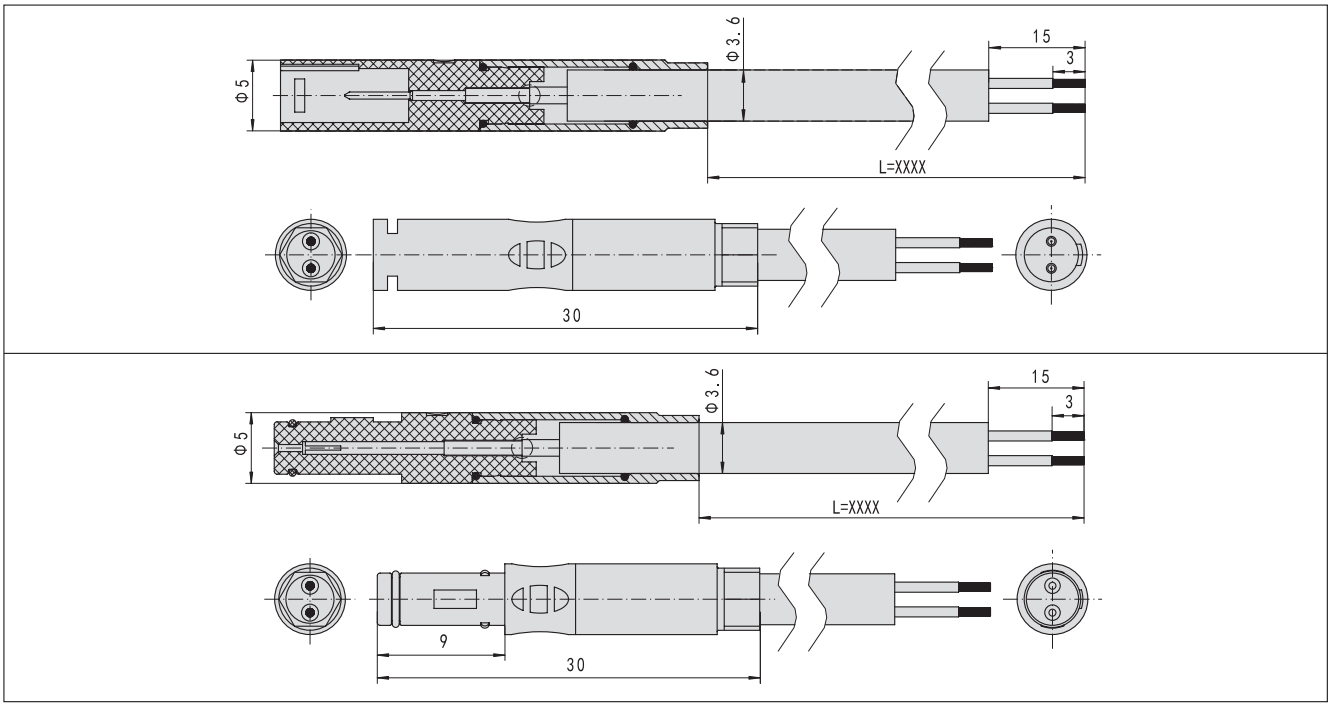
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 1A DC per pin
- Working voltage 80 V DC

[Environmental Performance]

- Temperature −40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65

[Mechanical Performance]

- Mating cycles ⩾ 100



3 Pin Data connector-A

[Connector Features]

- 3 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter ϕ5mm
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure 3×0.25mm^2 wires
- Insulation PVC(green/black/yellow)
- Jacket TPU black
- Outer diameter ϕ3.6mm

[Applications]

- LEV's /scooters/ e-bikes

[Electrical Performance]

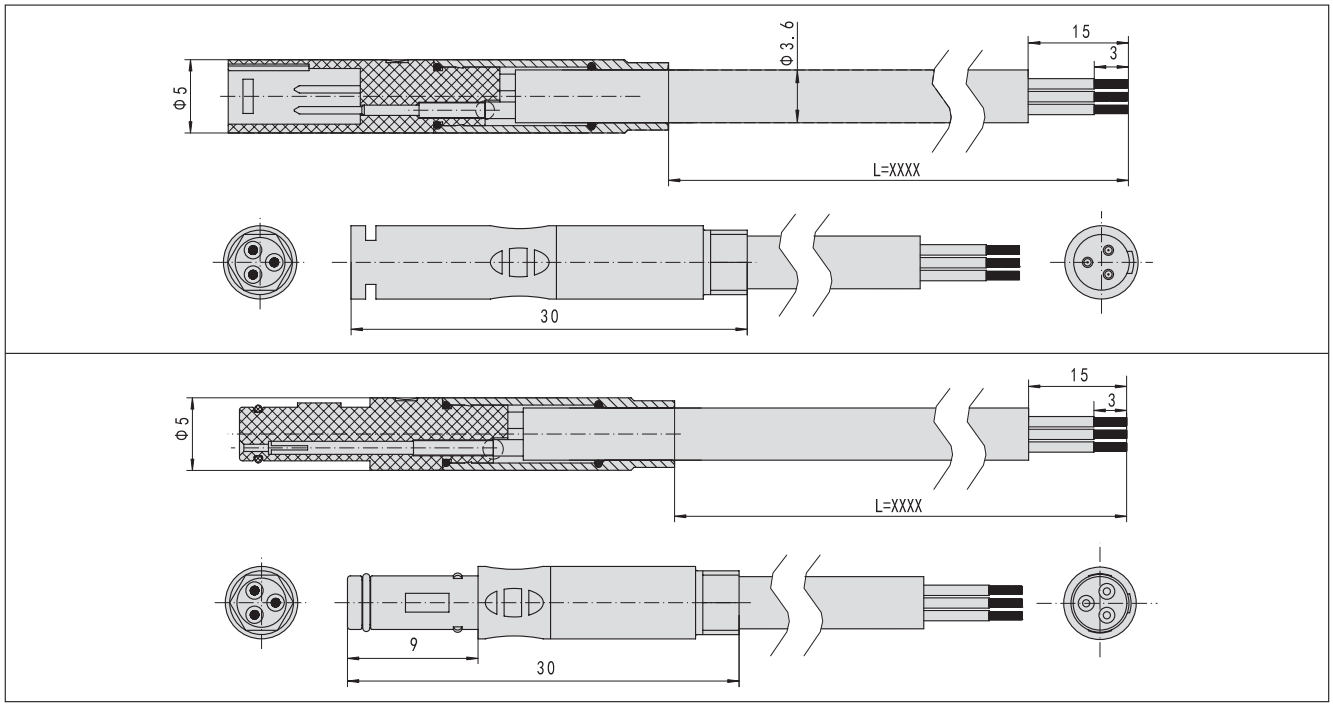
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 1A DC per pin
- Working voltage 80 V DC

[Environmental Performance]

- Temperature -40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65

[Mechanical Performance]

- Mating cycles ⩾ 100



4 Pin Data connector-A

[Connector Features]

- 4 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter ϕ5mm
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure 4×0.25mm^2 wires
- Insulation PVC(red/black/white/brown)
- Jacket TPU black
- Outer diameter ϕ3.6mm

[Applications]

- LEV's /scooters/ e-bikes

[Electrical Performance]

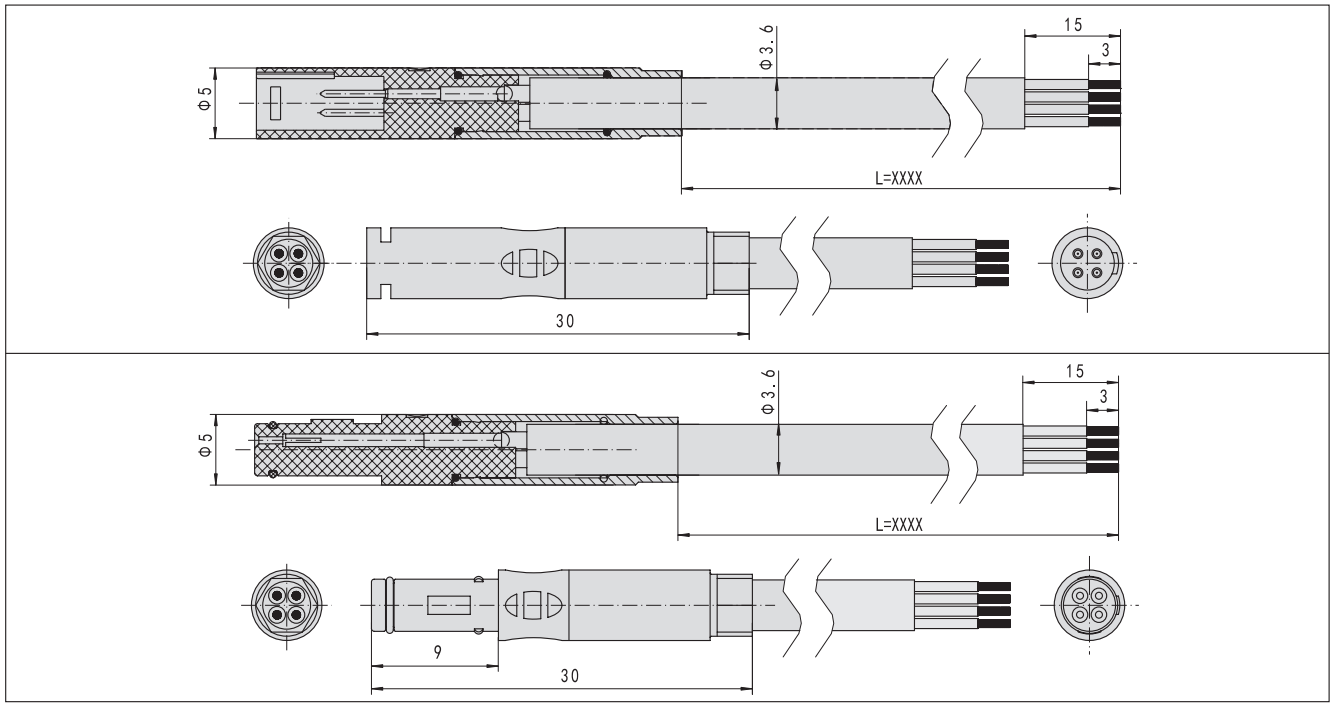
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 2A DC per pin
- Working voltage 80 V DC

[Mechanical Performance]

- Mating cycles ⩾ 100

[Environmental Performance]

- Temperature −40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65



2 Pin Data connector-B

[Connector Features]

- 2 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter φ7mm
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure 2×0.25mm^2 wires
- Insulation PVC(brown/black)
- Jacket TPU black
- Outer diameter φ3.6mm

[Applications]

- LEV's /scooters/ e-bikes

[Electrical Performance]

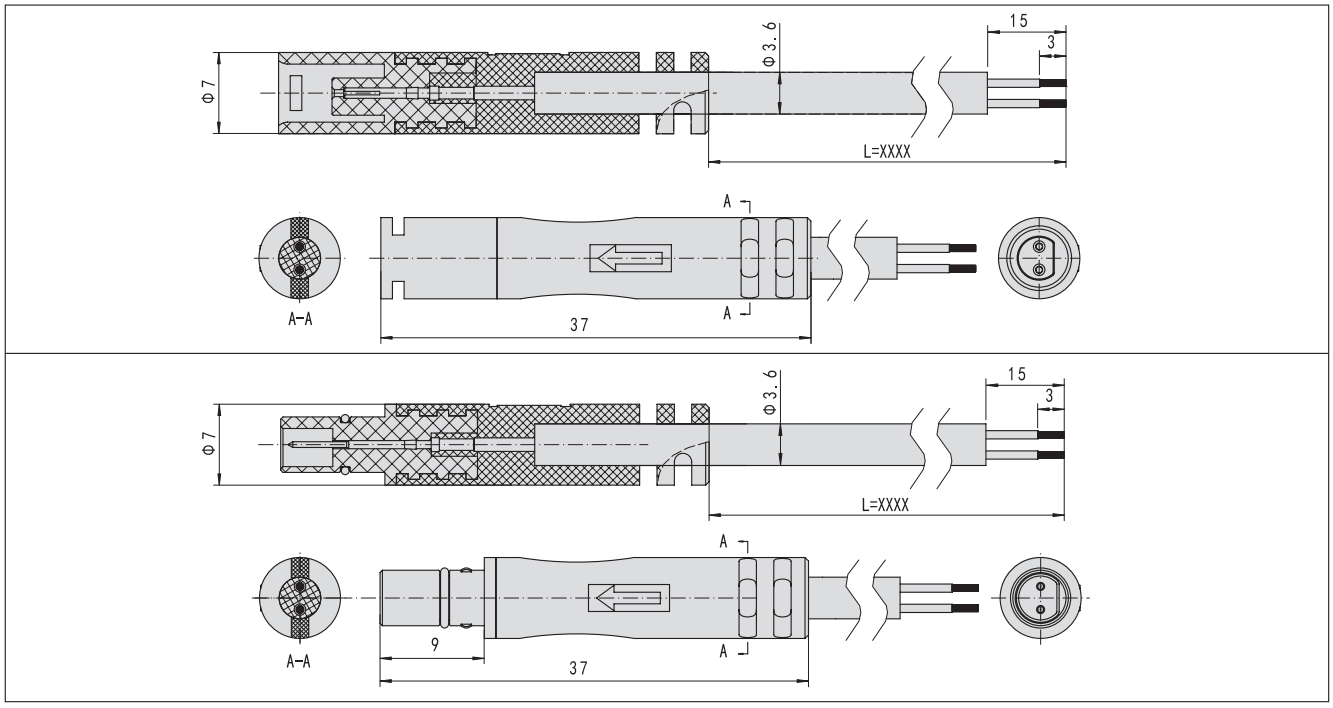
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 2A DC per pin
- Working voltage 80 V DC

[Environmental Performance]

- Temperature -40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65

[Mechanical Performance]

- Mating cycles ⩾ 100



3 Pin Data connector-B

[Connector Features]

- 3 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter ϕ7mm
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure 3×0.25mm^2 wires
- Insulation PVC(green/black/yellow)
- Jacket TPU black
- Outer diameter ϕ3.6mm

[Applications]

- LEV's /scooters/ e-bikes

[Electrical Performance]

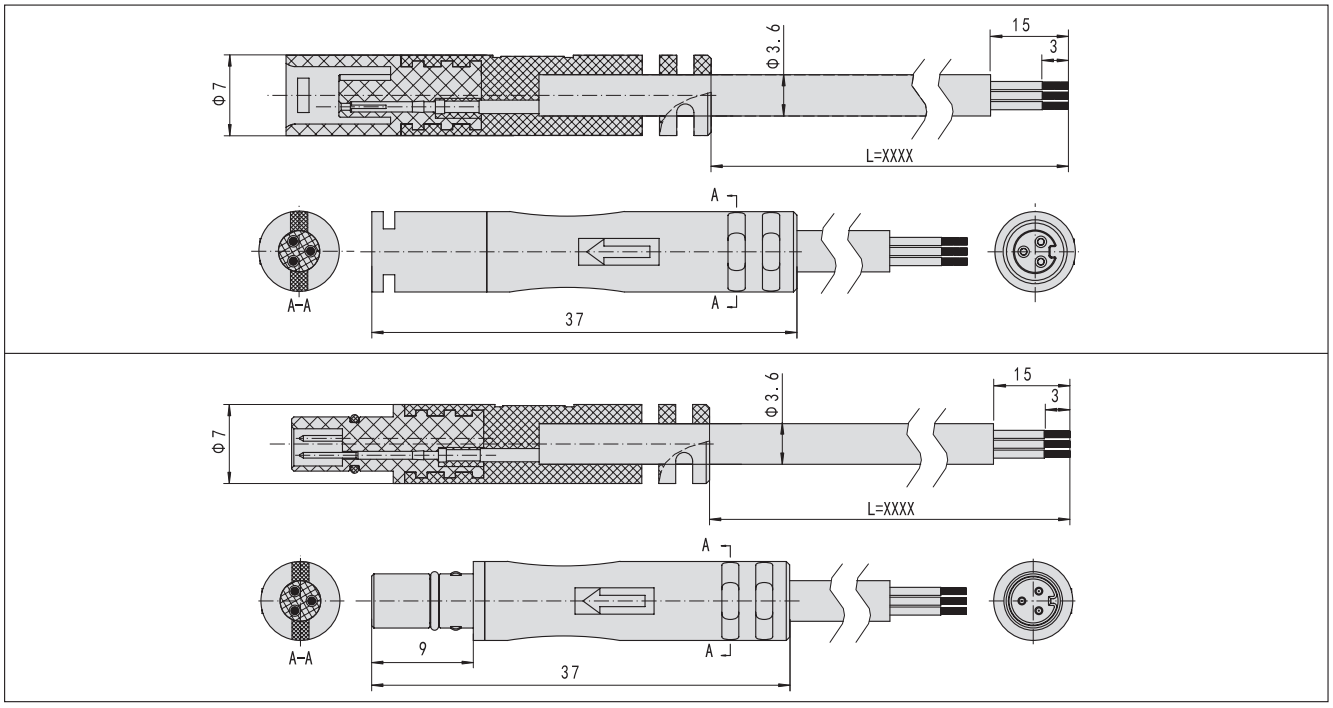
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 2A DC per pin
- Working voltage 80 V DC

[Mechanical Performance]

- Mating cycles ⩾ 100

[Environmental Performance]

- Temperature -40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65



4 Pin Data connector-B

[Connector Features]

- 4 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter ϕ7mm
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure 4×0.25mm^2 wires
- Insulation PVC(red/black/white/brown)
- Jacket TPU black
- Outer diameter ϕ3.6mm

[Applications]

- LEV's /scooters/ e-bikes

[Electrical Performance]

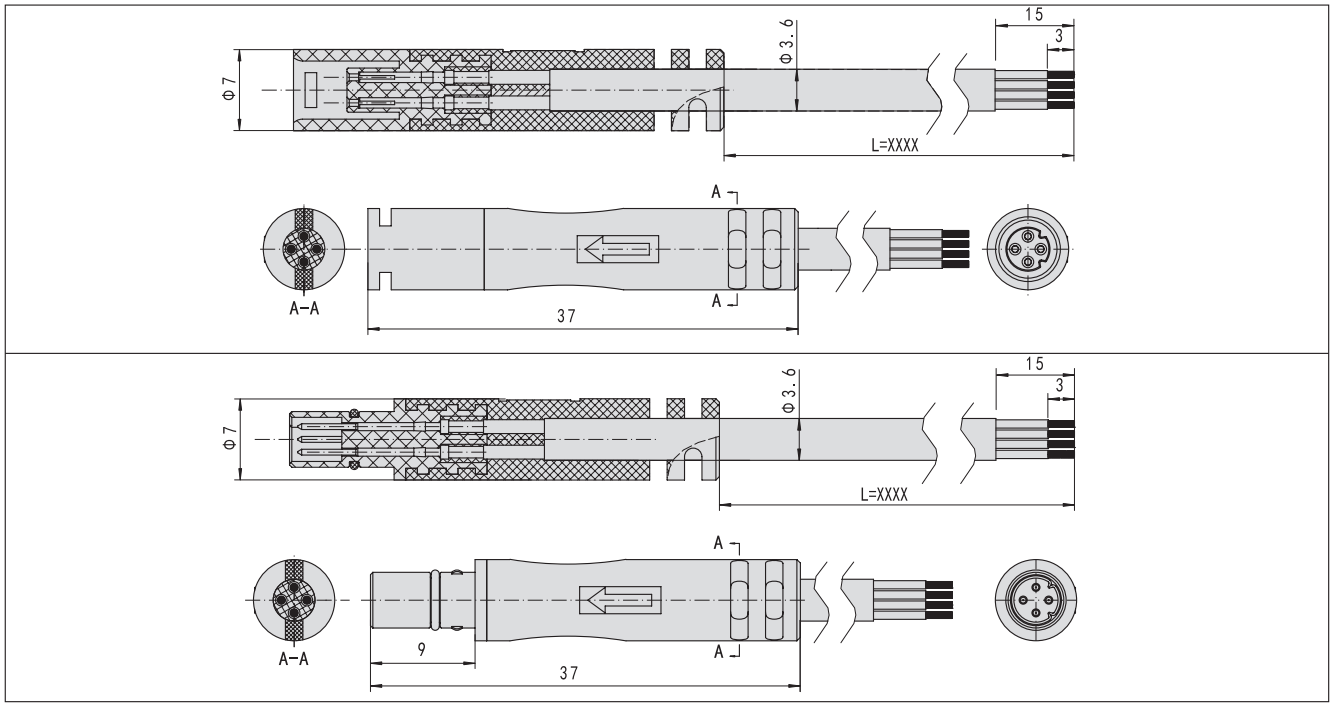
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 2A DC per pin
- Working voltage 80 V DC

[Mechanical Performance]

- Mating cycles ⩾ 100

[Environmental Performance]

- Temperature −40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65



2 Pin Data connector-C

[Connector Features]

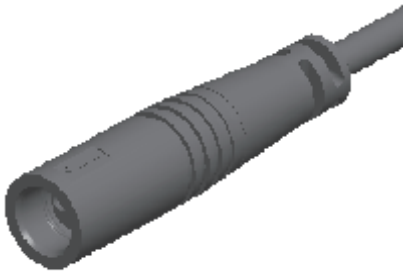
- 2 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter ϕ10mm
- Contact Plating-Gold plated
- Innovative locking system

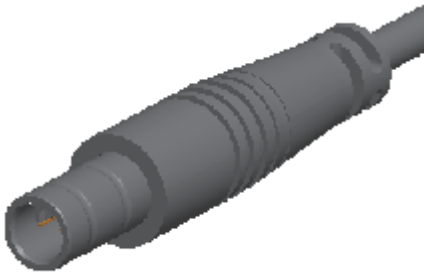
[Cable Features]

- Structure 2×0.25mm² wires
- Insulation PVC(brown/black)
- Jacket TPU black
- Outer diameter ϕ3.6mm

[Applications]

- LEV's /scooters/ e-bikes





[Electrical Performance]

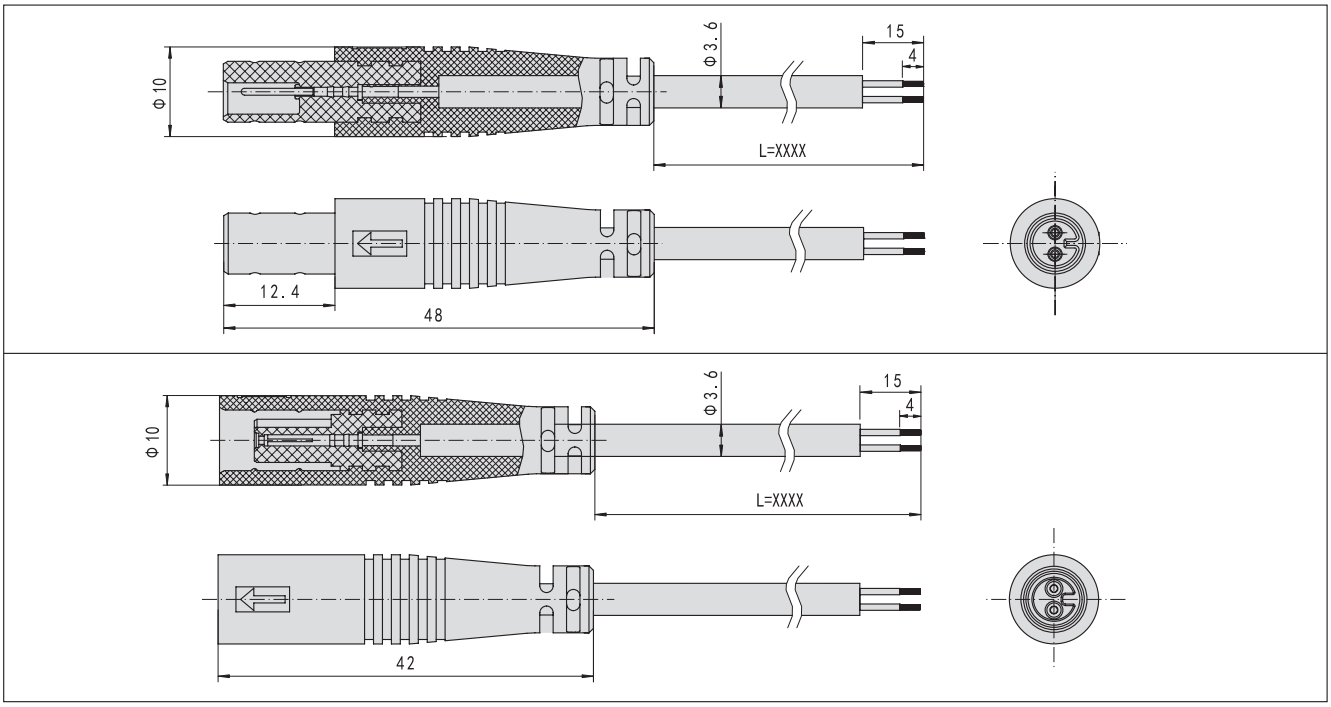
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 2A DC per pin
- Working voltage 80 V DC

[Mechanical Performance]

- Mating cycles ⩾ 100

[Environmental Performance]

- Temperature −40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s²
- Shock resistance 10～55Hz, 98m/s²
- Dust and water resistance IP65



3 Pin Data connector-C

[Connector Features]

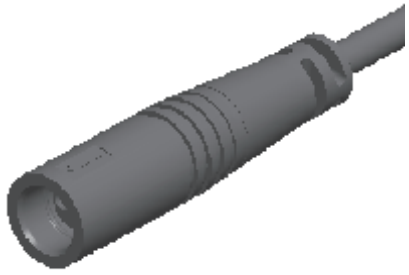
- 3 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter ϕ10mm
- Contact Plating-Gold plated
- Innovative locking system

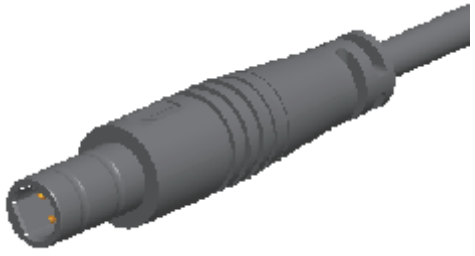
[Cable Features]

- Structure 3×0.25mm^2 wires
- Insulation PVC(green/black/yellow)
- Jacket TPU black
- Outer diameter ϕ3.6mm

[Applications]

- LEV's /scooters/ e-bikes





[Electrical Performance]

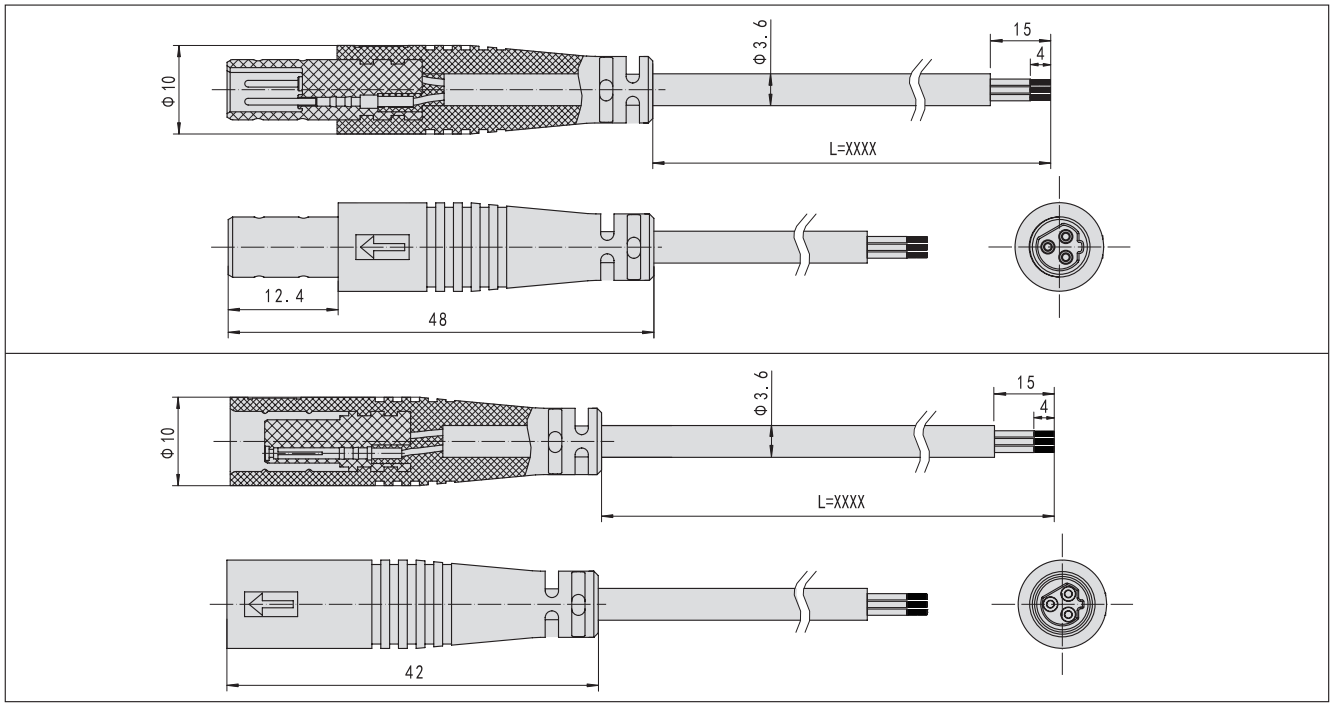
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 2A DC per pin
- Working voltage 80 V DC

[Mechanical Performance]

- Mating cycles ⩾ 100

[Environmental Performance]

- Temperature −40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65



4 Pin Data connector-C

[Connector Features]

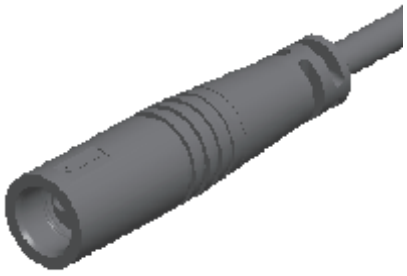
- 4 Pin Data Connectors(plug & receptacle)
- Waterproof
- Compact design-Outer diameter φ10mm
- Contact Plating-Gold plated
- Innovative locking system

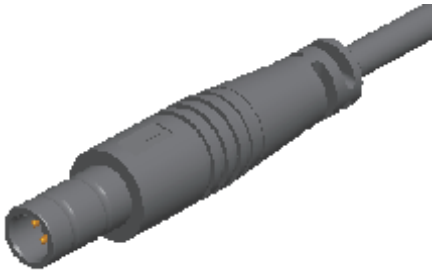
[Cable Features]

- Structure 4×0.25mm^2 wires
- Insulation PVC(red/black/white/brown)
- Jacket TPU black
- Outer diameter φ3.6mm

[Applications]

- LEV's /scooters/ e-bikes





[Electrical Performance]

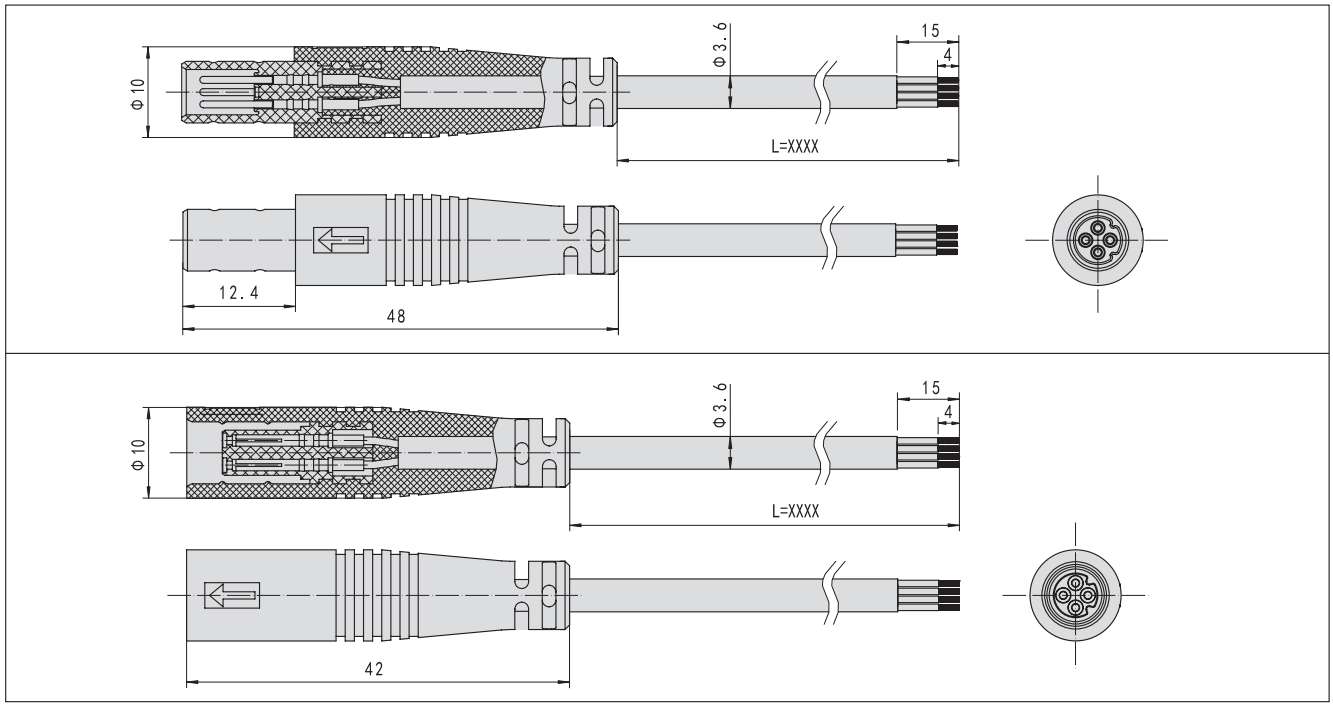
- Insulation resistance ⩾ 30MΩ
- Max. current ⩽ 2A DC per pin
- Working voltage 80 V DC

[Mechanical Performance]

- Mating cycles ⩾ 100

[Environmental Performance]

- Temperature −40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65



4 Pin Power connector-E

[Connector Features]

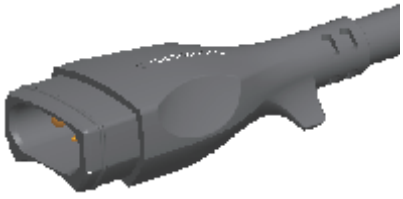
- 4 Pin Power Connectors(plug& receptacle)
- Waterproof
- Innovative appearance design-convenient installation
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure-2×2.5mm^2 +2×0.5mm^2 wires
- Insulation-PVC(red/black/yellow/green)
- Jacket-PVC black
- Outer diameter-φ8mm

[Applications]

- LEV's /scooters/ e-bikes



[Electrical Performance]

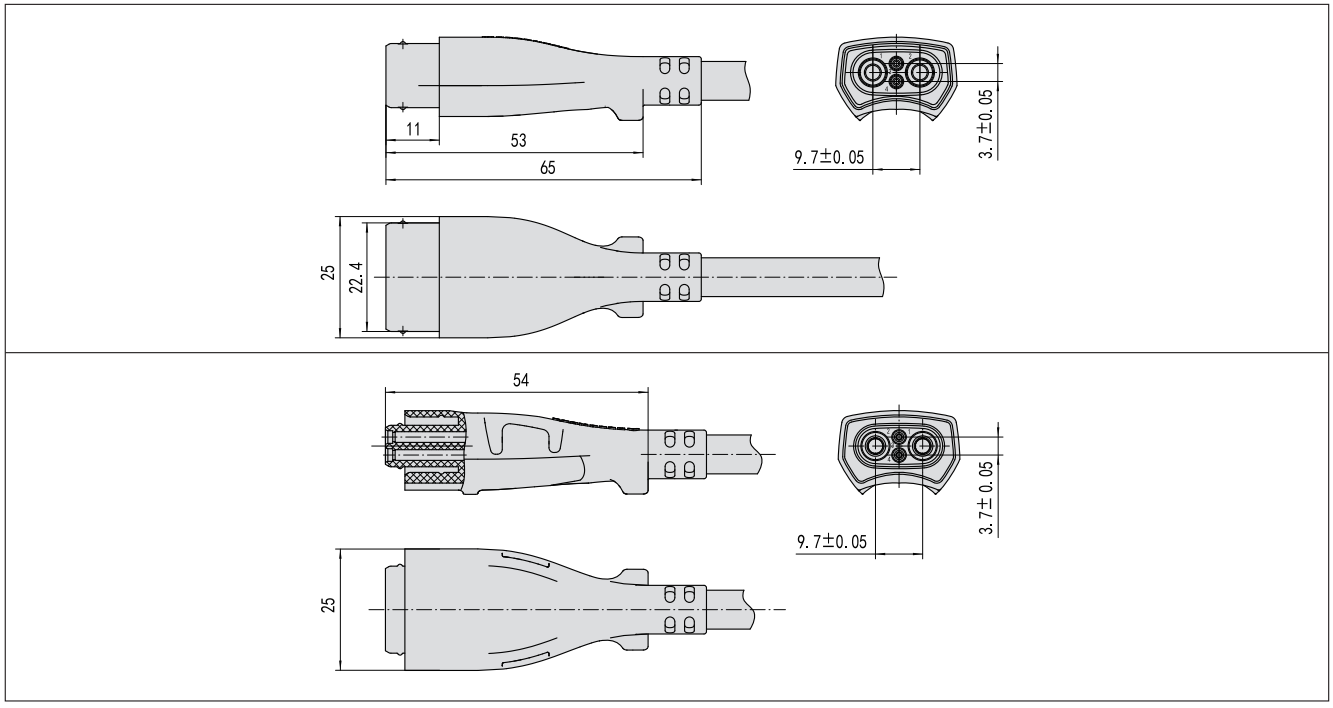
- Insulation resistance ⩾ 30MΩ
- Contact resistance ⩽ 0.75mΩ(Power)
  ⩽ 5mΩ(Signal)
- Max. current ⩽ 40A DC per pin(Power)
  ⩽ 2 A DC per pin(Signal)
- Working voltage 100 V DC
  12 V DC

[Environmental Performance]

- Temperature -40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65

[Mechanical Performance]

- Mating cycles ⩾ 100
- Engagement force ⩽ 50N
- Disengagement force ⩾ 100N



4 Pin Power connector-F

[Connector Features]

- 4 Pin Power Connectors(plug& receptacle)
- Waterproof
- Innovative appearance design-convenient installation
- Contact Plating-Gold plated
- Innovative locking system

[Cable Features]

- Structure-2×2.5mm^2 +2×0.5mm^2 wires
- Insulation-PVC(red/black/yellow/green)
- Jacket-PVC black
- Outer diameter-ϕ8mm

[Applications]

- LEV's /scooters/ e-bikes

[Electrical Performance]

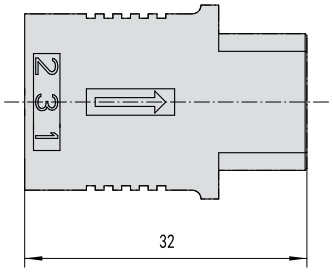
- Insulation resistance ⩾ 30MΩ
- Contact resistance ⩽ 0.75mΩ(Power)
  ⩽ 5mΩ(Signal)
- Max. current ⩽ 40A DC per pin(Power)
  ⩽ 2 A DC per pin(Signal)
- Working voltage 100 V DC
  12 V DC

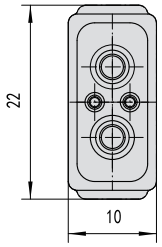
[Environmental Performance]

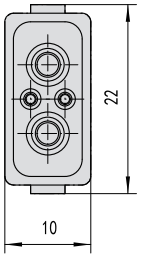
- Temperature -40℃～+65℃
- Vibration resistance Peak acceleration 490 m/s^2
- Shock resistance 10～55Hz, 98m/s^2
- Dust and water resistance IP65

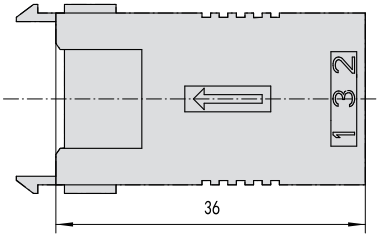
[Mechanical Performance]

- Mating cycles ⩾ 100









Appendix

Silver plating products protection requirement

1.Storage requirement

- Keep silver plating products in dark place. We suggest use black plastic bag to store the products.
- The silver plating products should be packaged and sealed in good condition during storage.
- The storage environment doesn't contain sulfur.
- In the assembly line, silver plating parts should be kept from sunshine.
- In the assembly line, do not leave the silver plating parts in air long. If the lead time is long (longer than 1 week), keep the parts from air in the spare time of processing.
- The assembly and operate work site should clear sulfur products (for example: leather, rubber, etc.). Check the cushion on the assembly table, the sealing glue and the turnover box; make sure that they do not contain sulfur.
- In the assembly process, be careful not scratch the silver plating.
- If the silver products need to be soldered, clean the flux after soldering and give protection treatment to the silver plating (put some lubricant on the contact place; give other place and the circuit board treatment of moisture proof, salt spray proof and fungus proof).

2.Use requirement

- Silver plating can not be used as the protection layer of ferrous metal in air condition
- Silver plating products are forbidden to contact with sulfur products.
- Do not touch silver plating by hand directly in manufacturing, assembly, storage process.
- Little change of pin color doesn't affect the characteristics, the pin can be used.
- If the silver plating products need to be repacked and shipped to next customer, we recommend to use black plastic bag first and then other package.