

**NEW**



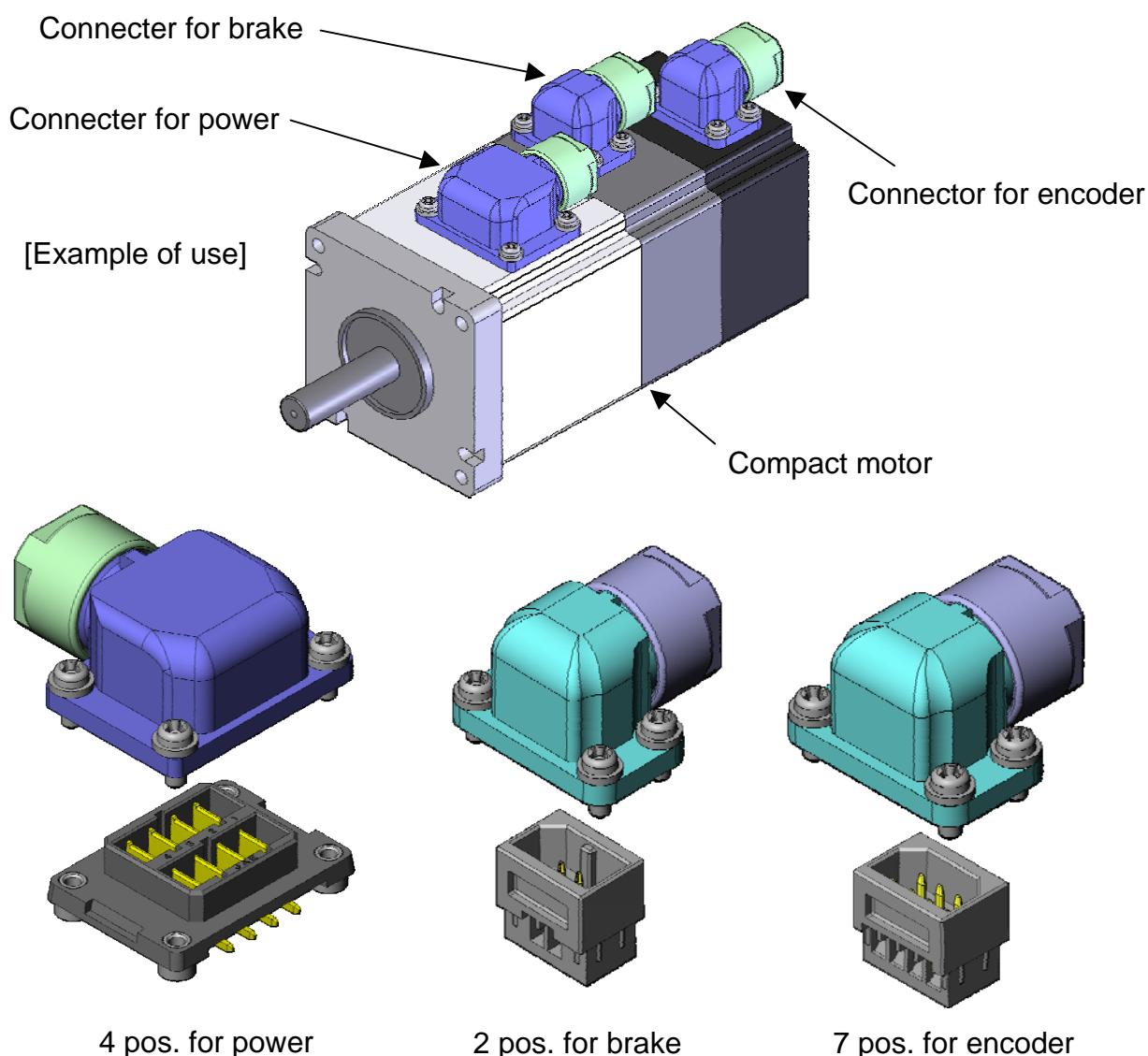
Small Waterproof Connector

CONNECTOR

MB-0161-1

September 2006

# JN6 Series



4 pos. for power

2 pos. for brake

7 pos. for encoder

<<Outline>> JN6 has been developed for small servo motors following the JN4, JN5 Series. With 4 power contacts, 2 brake contacts and 7 encoder contacts that are all reversible in the 180 degree direction.

## Features

1. All plastic ---lightweight, low cost
2. Compact and low profile --- 4 pos.; plug overall length 28mm, plug height 11.4mm
3. Receptacle attachment --- 4 pos.; molded in to motor  
2 pos., 7pos.; crimp attached to motor
4. Connection method --- 4pos. receptacle; board through-hole type  
4pos. plug and other 2pos., 7pos.; crimp type
5. Secure mating ---enables secure mating by screw fixing 4points
6. Waterproof ---IP67 class
7. Cable pulling out direction --- selectable from two directions(180 degrees)

## General Specifications

	Items	Specification and performance	
		for Power (4pos.)	for Brake(2pos.)/ for Encoder (7pos.)
1	Rated current	7A max. (per pos.)	1A max. (per pos.)
2	Rated voltage	200VAC	100VAC
3	Withstanding voltage	1500VAC	500VAC
4	Insulation resistance	1000M ohm min. (500V energized)	1000M ohm min. (500V energized)
5	Waterproof	IP67 (when mated)	IP67 (when mated)
6	Operating temperature	-40 to +125 Deg. C	-40 to +125 Deg. C
7	Connection specification	Receptacle: Angle through-hole Plug: crimp (AWG#20 to #18)	Receptacle: crimp (AWG#28 to #22) Plug: crimp (AWG#28 to #22)
8	Plug applicable cable	Cable outer dia.: dia.6±0.5	Cable outer dia.: dia.5±0.5

## Materials and Finishes

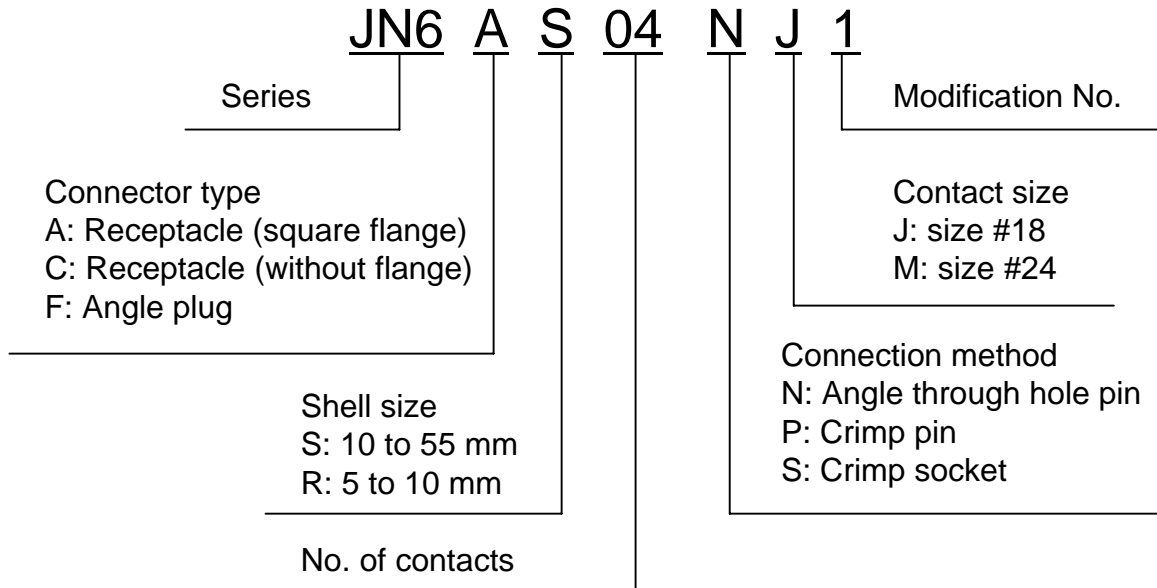
### 1) Receptacle

	Name of parts	Materials	Finishes
1	Pin contact	Copper alloy	Au plating
2	Pin insulator	Resin (black)	-
3	Insert nut (4 pos. only)	4 pos. only: copper alloy	Zinc plating (black chromate finish, chromium hexavalent free)

### 2) Plug

	Name of parts	Materials	Finishes
1	Socket contact	Copper alloy	Au plating
2	Socket insulator	Resin (black)	-
3	Hood	Resin (black)	-
4	Grand nut	Resin (black)	-
5	Gasket	NBR (black) Heat resistant	-
6	Bushing	NBR (black) Heat resistant	-
7	Spring	Stainless steel	-
8	Screw	Steel	Zinc plating (black chromate finish, chromium hexavalent free)

## Ordering Information



## Part Number List

	Part Number	SJ Drawing	Remarks
1. Part Number	JN6AS04NJ1	SJ105512	Receptacle (4pos. )
	JN6FS04SJ*	SJ105513	Angle plug (4pos. )
	JN6CR02PM1	SJ105514	Receptacle (2pos. )
	JN6FR02SM1	SJ105515	Angle plug (2pos. )
	JN6CR07PM1	SJ105516	Receptacle (7pos. )
	JN6FR07SM1	SJ105517	Angle plug (7pos. )
	ST-JN5-S-C1B-2500-(A534G)	SJ101308	#18 crimp socket contact
	JN6-P-C1-10000	SJ105897	#24 crimp pin contact (C1)
	JN6-P-C2-10000	SJ105898	#24 crimp pin contct (C2)
	LY10-C1-A1-10000	SJ100704	#24 crimp socket contact (C1)
	LY10-C2-A1-10000	SJ100705	#24 crimp socket contact (C2)
2. Specification	JN6 Connector Specification	JACS-50014	
3. Handling Instruction	JN6 Connector Handling Instruction	JAHL-50014	

## Connector

	Part Number	Type	Remarks
1	JN6AS04NJ1	Receptacle (4 pos.)	for Power angle through-hole type
2	JN6FS04SJ1	Angle plug (4 pos. )	for Power crimp socket type (Standard type)
	JN6FS04SJ2		for Power crimp socket type ( Reverse type)
3	JN6CR02PM1	Receptacle (2 pos.)	for Brake crimp pin type
4	JN6FR02SM1	Angle plug (2 pos.)	for Brake crimp socket type (Standard/ Reverse type both in common)
5	JN6CR07PM1	Receptacle (7 pos.)	for Brake crimp pin type
6	JN6FR07SM1	Angle plug (7 pos.)	for Brake crimp socket type (Standard/ Reverse type both in common)

\*Cable pulling out direction of plug is reversible.  
Select standard or reverse due to the pulling out direction.

## Crimp contact

Crimp contact is sold separately. Refer below for part number.

Applicable Connector	Contact Category	Part Number	Applicable Cable	
			AWG No.	Outer Diameter
JN6FS04SJ*	#18 Socket contact	ST-JN5-S-C1B-2500-(A534G)	#20 to #18	dia. 1.3 to dia. 1.8
JN6CR02PM1	#24 Pin contact	JN6-24P-C1-10000	#24 to #22	dia. 0.8 to dia. 1.3
JN6CR07PM1		JN6-24P-C2-10000	#28 to #26	dia. 0.7 to dia. 1.2
JN6FR02SM1	#24 Socket contact	LY10-C1-A1-10000	#24 to #22	dia. 0.8 to dia. 1.3
JN6FR07SM1		LY10-C2-A1-10000	#28 to #26	dia. 0.7 to dia. 1.2

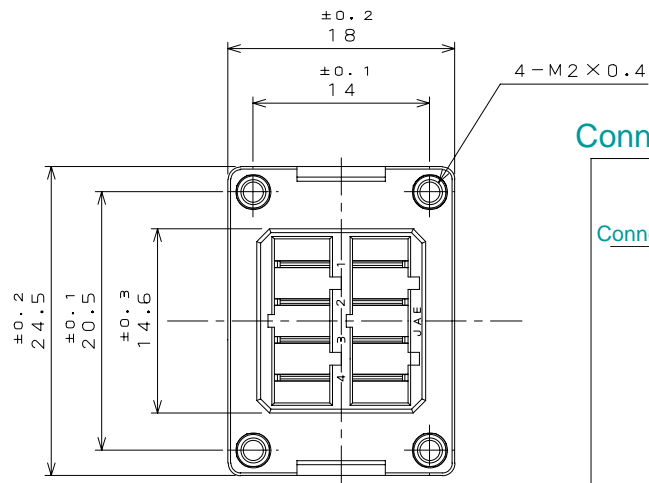
## Crimping tools

Use crimp tools below for contact crimping.

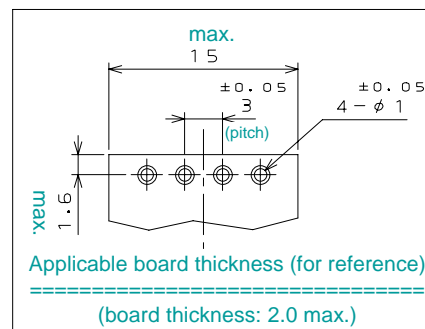
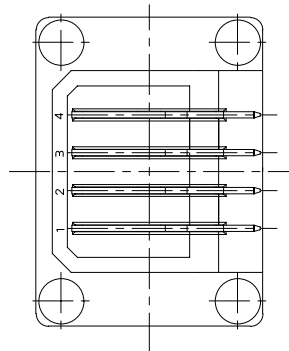
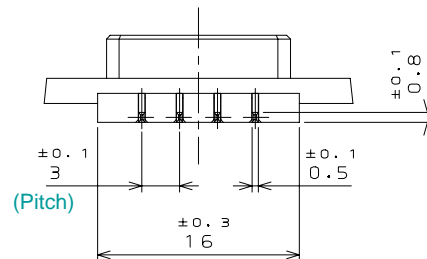
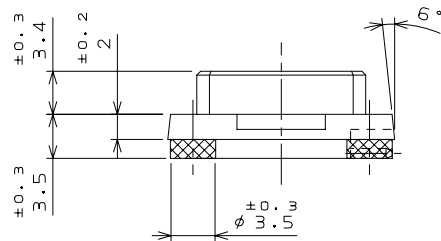
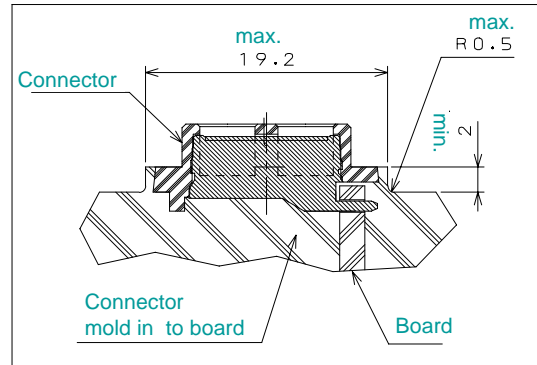
Contact Category	Tool Category	Applicable Cable	Applicable Tool	Tool Handling Instruction
#18 Socket contact	Hand crimp	AWG#20 to #18	CT160-3-JN5	T700263
	Semi-automatic crimp	AWG#20 to #18	350-JN5-2	T703332
#24 Pin contact	Hand crimp	AWG#24 to #22	CT150-4-JN6-1	T700287
		AWG#28 to #26	CT150-4-JN6-2	
	Semi-automatic crimp	AWG#28 to #22	350-LY1-2	T703138
#24 Socket contact	Hand crimp	AWG#24 to #22	CT150-4-LY1	T700132
		AWG#28 to #26	CT150-4-LY2	
	Semi-automatic crimp	AWG#28 to #22	350-LY1-2	T703138

\*\* For RoHS compliance information concerning connection and removal tools which appear in this brochure, please consult us.

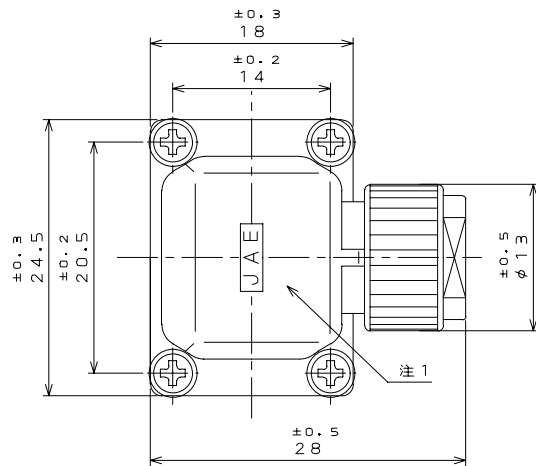
[Receptacle/ 4pos. ]



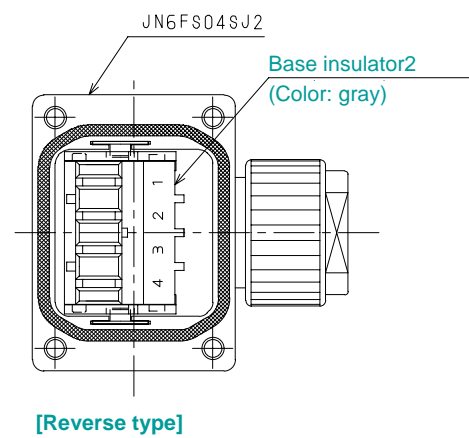
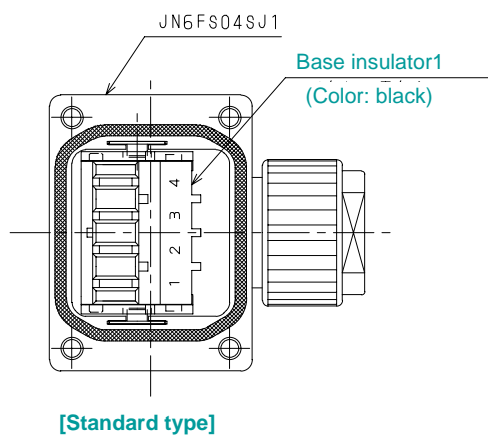
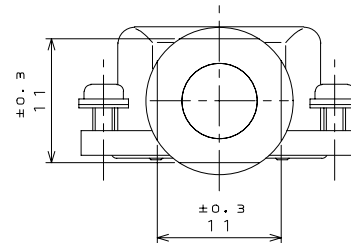
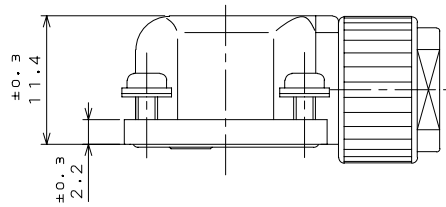
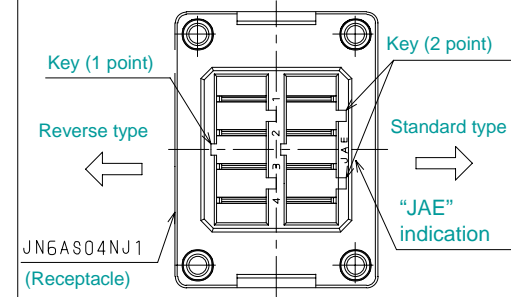
## Connector Attachment (for reference)



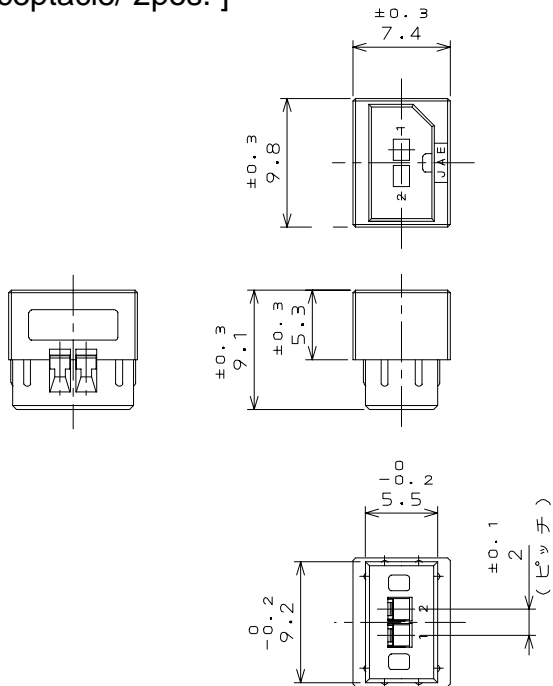
[Angle plug 4pos. ]



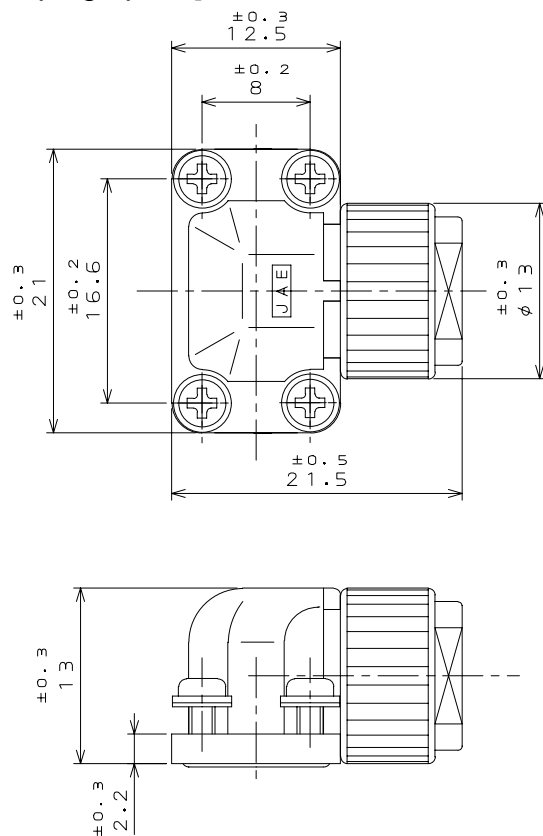
Connector Pulling Out Direction (for reference)



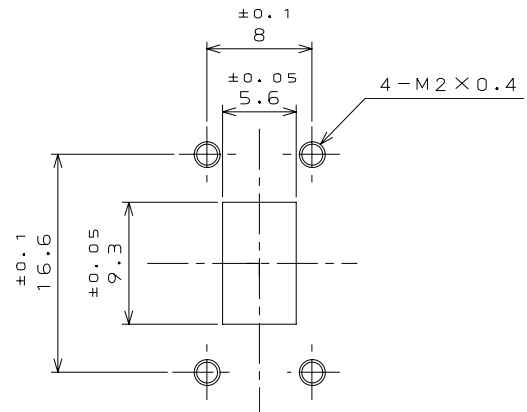
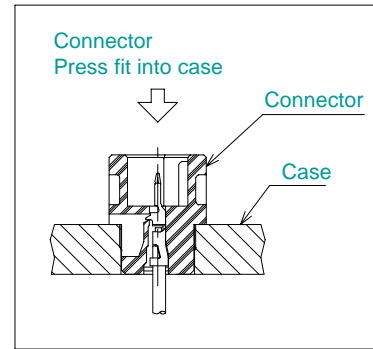
## [Receptacle/ 2pos. ]



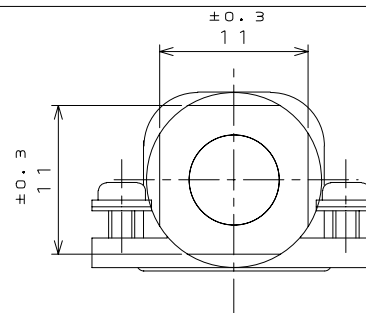
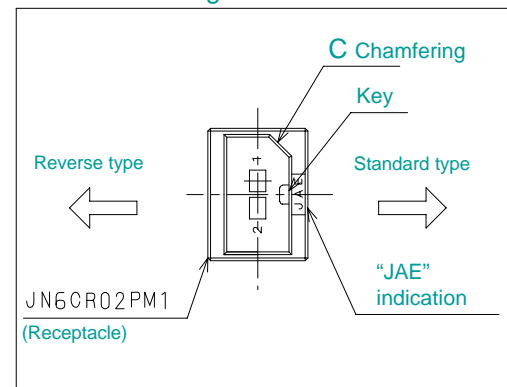
## [Angle plug 2pos. ]



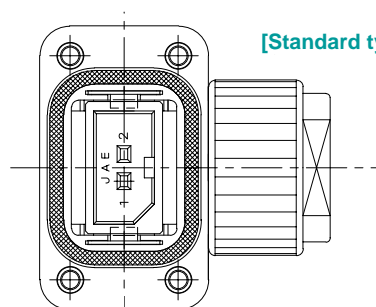
## Connector Attachment



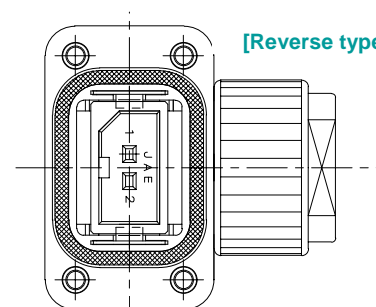
## Connector Pulling Out Direction



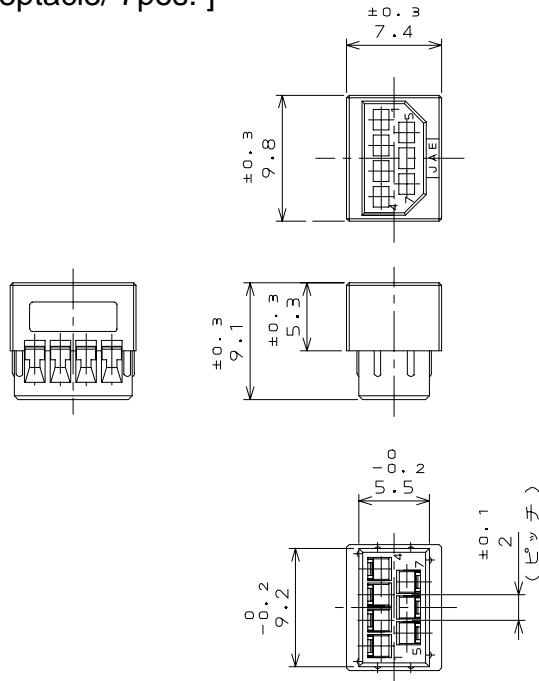
## [Standard type]



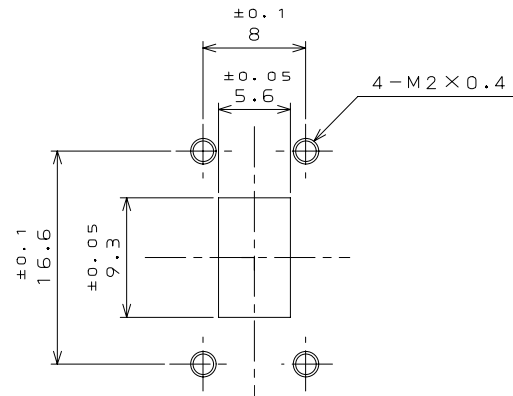
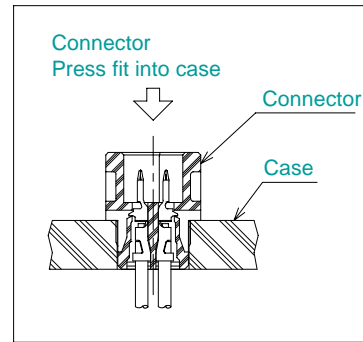
## [Reverse type]



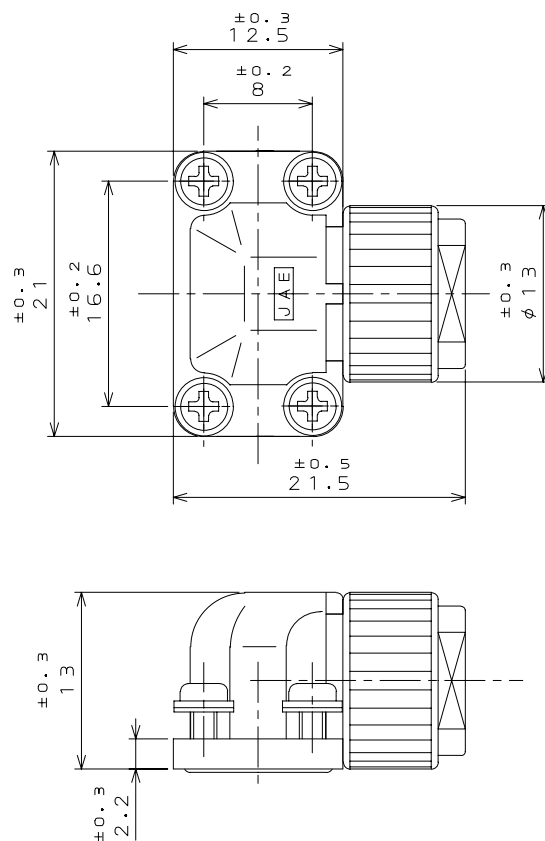
## [Receptacle/ 7pos. ]



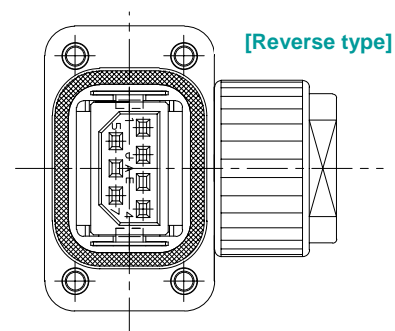
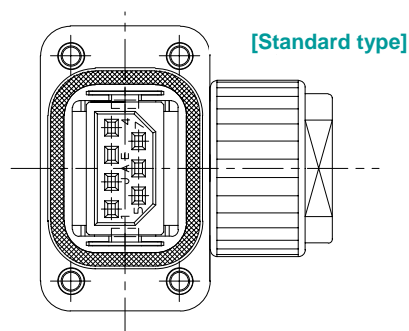
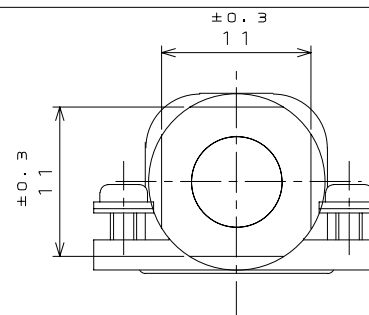
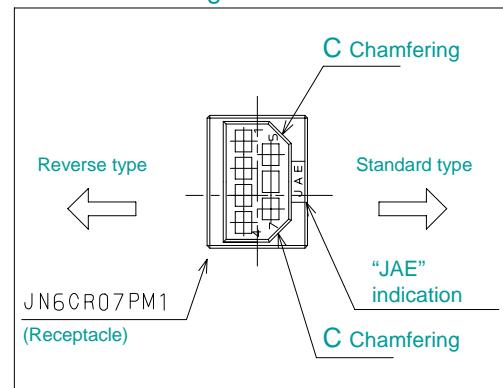
## Connector Attachment



## [Angle plug 7pos. ]



## Connector Pulling Out Direction





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Recommended applications: Computers, Office machines, Measuring devices, Telecommunication devices (Terminals, Mobile devices), AV devices, Household applications, FA devices, etc.

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