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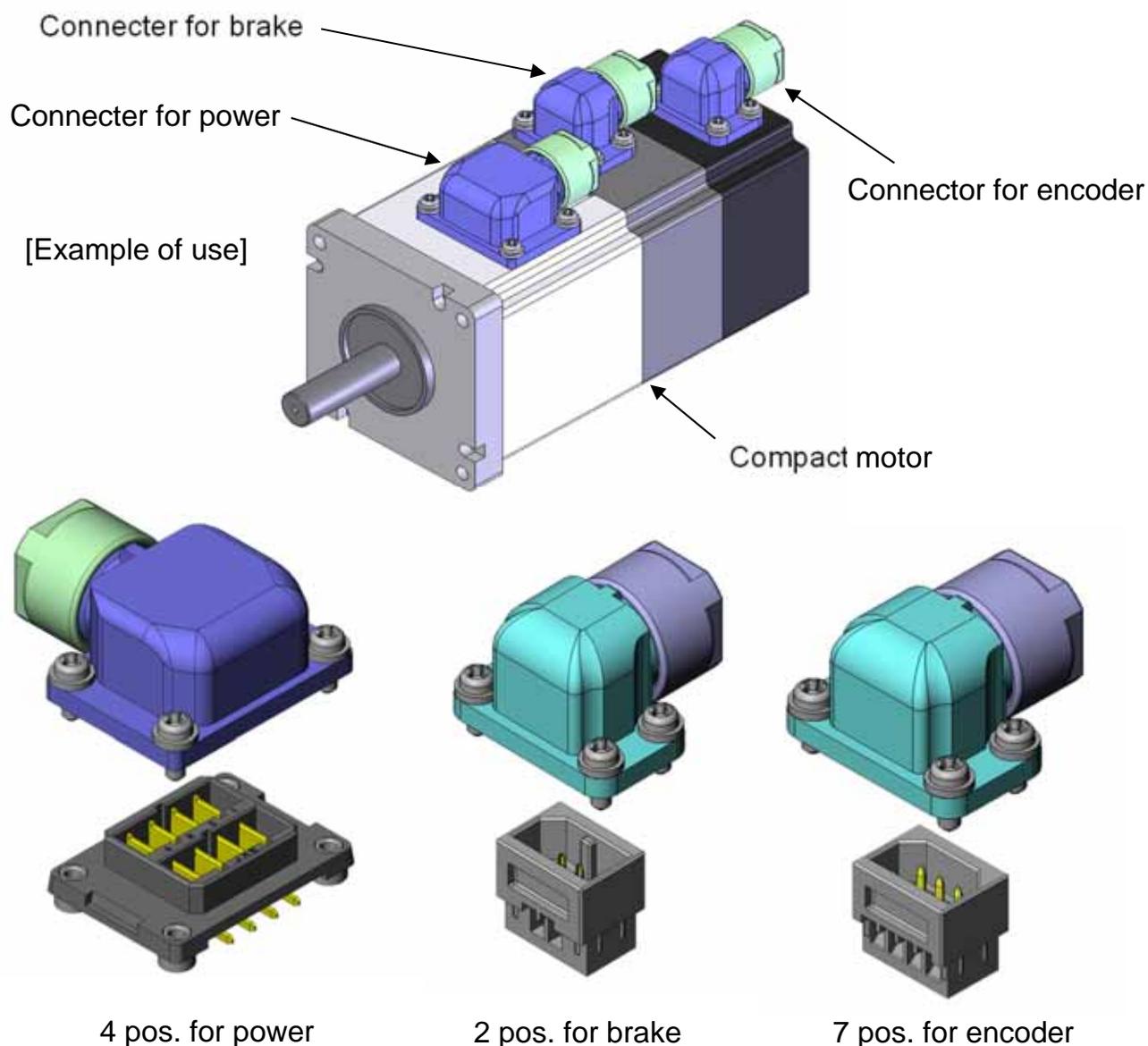
Small Waterproof Connector

CONNECTOR

MB-0161-1

September 2006

JN6 Series



<<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 Encorder (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

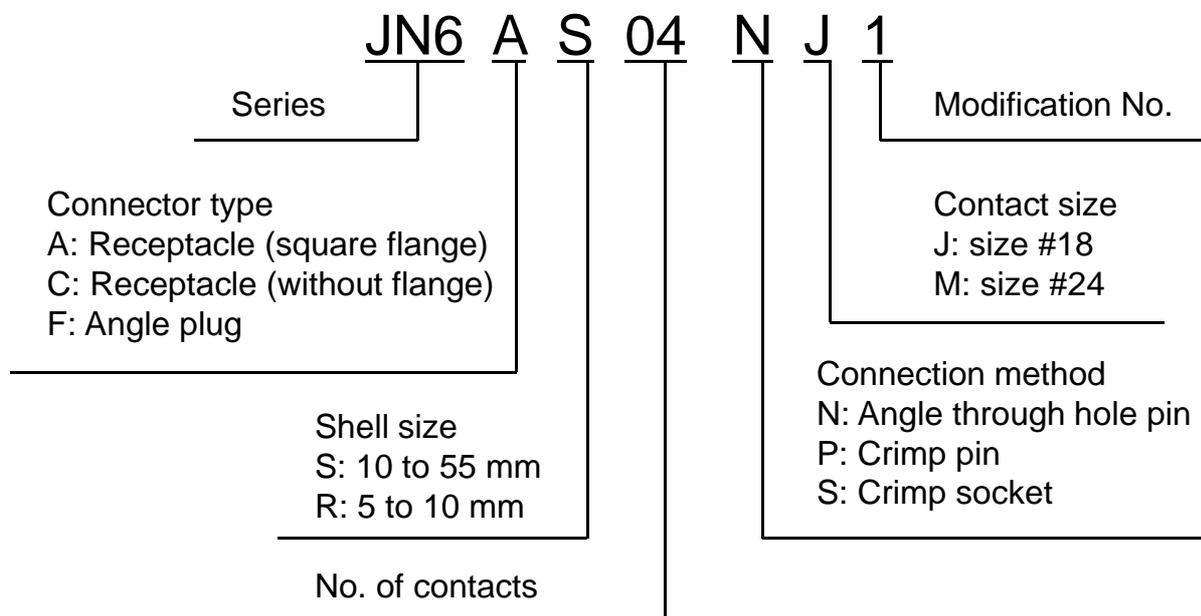
1) Receptacle

	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

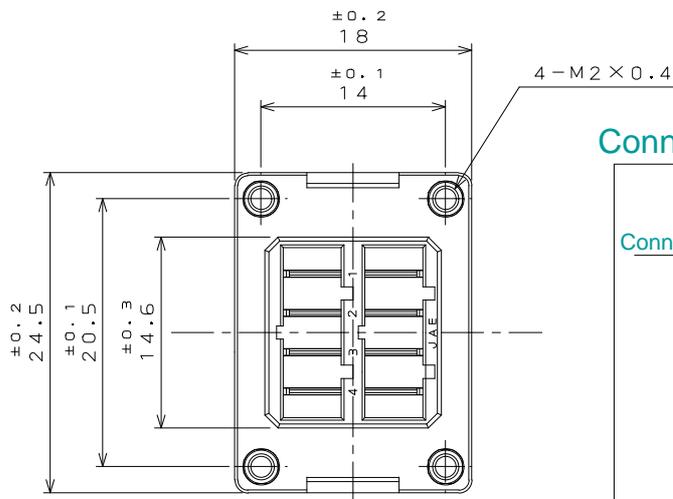
Crimping tools

Use crimp tools below for contact crimping.

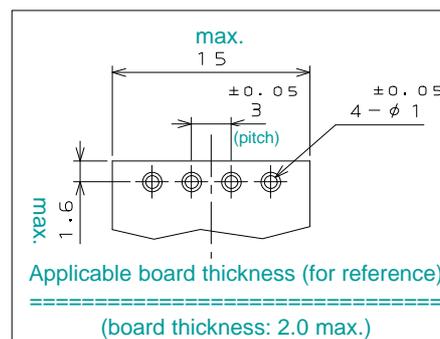
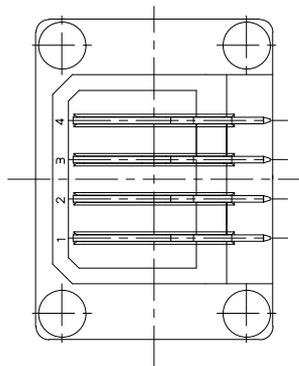
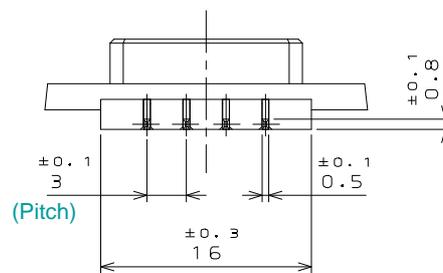
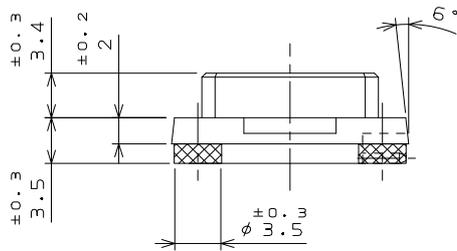
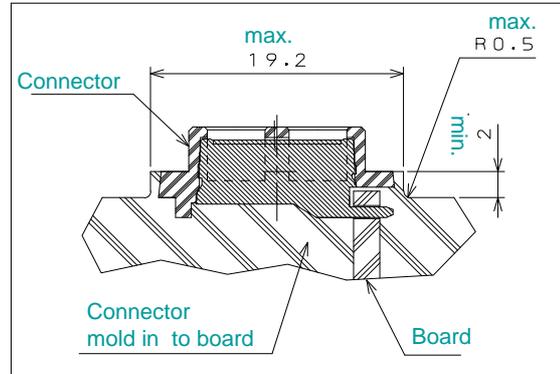
Contact Category	Tool Category	Applicable Cable	Applicable Tool	Tool Handling Instruction
#18 Socket contact	Hand crimp	AWG#20 to #18	CT160-3-JN5	T700263
	Semi-automatic crimp	AWG#20 to #18	350-JN5-2	T703332
#24 Pin contact	Hand crimp	AWG#24 to #22	CT150-4-JN6-1	T700287
		AWG#28 to #26	CT150-4-JN6-2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

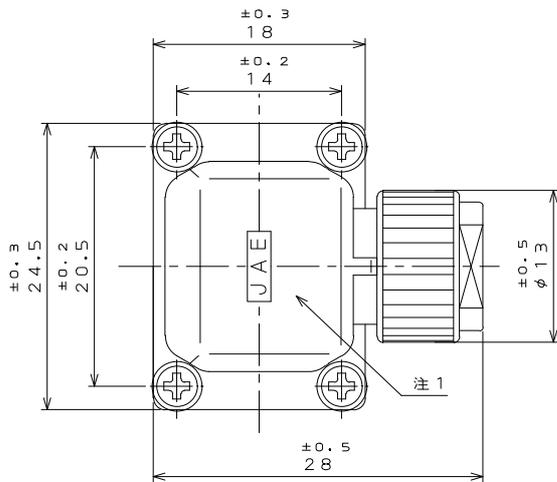
[Receptacle/ 4pos.]



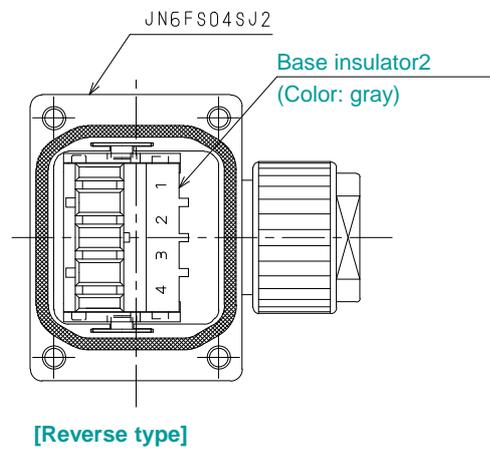
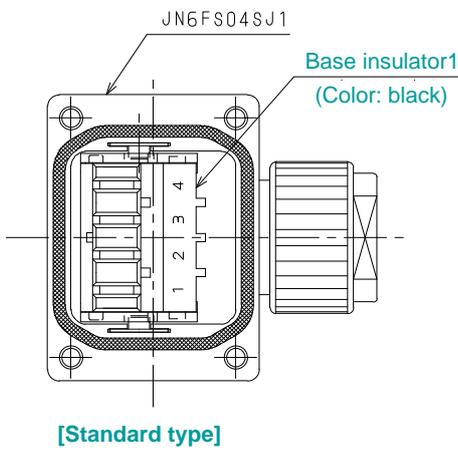
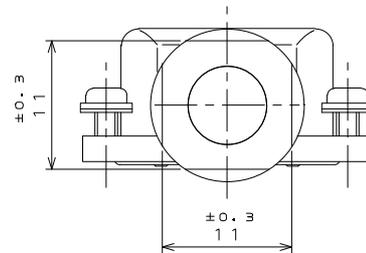
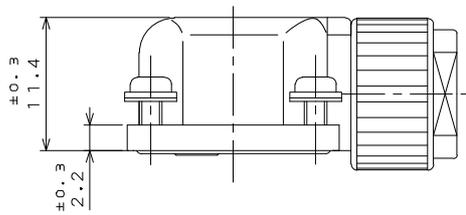
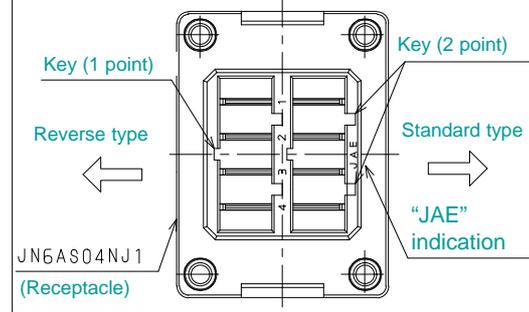
Connector Attachment (for reference)



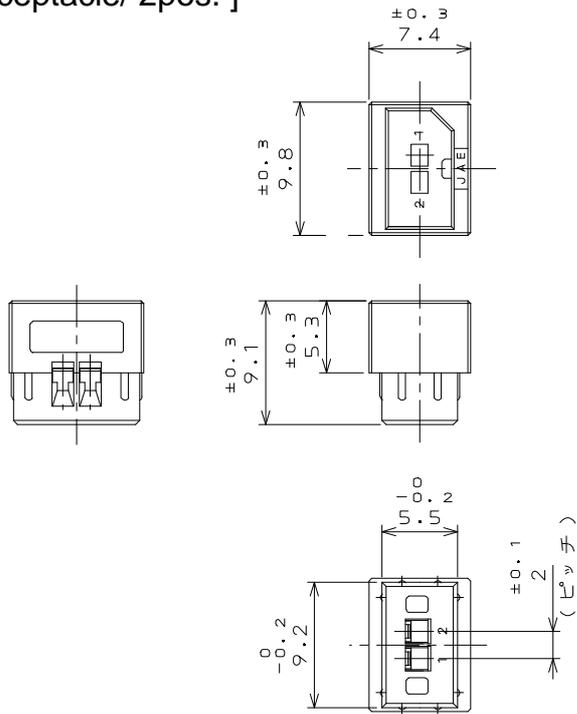
[Angle plug 4pos.]



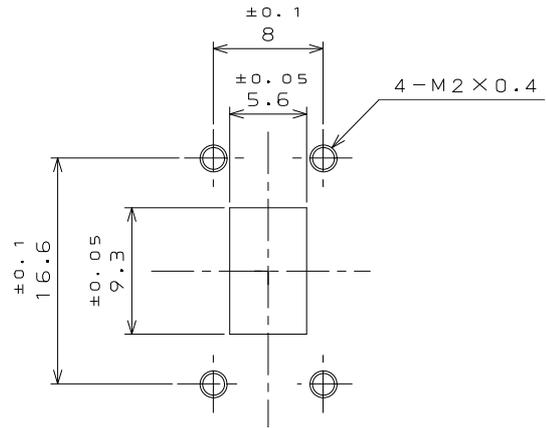
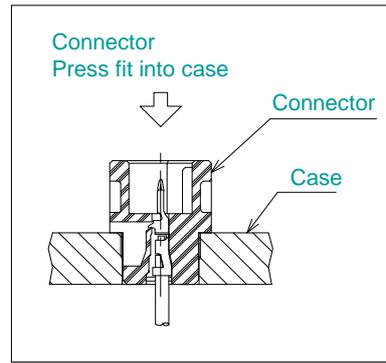
Connector Pulling Out Direction (for reference)



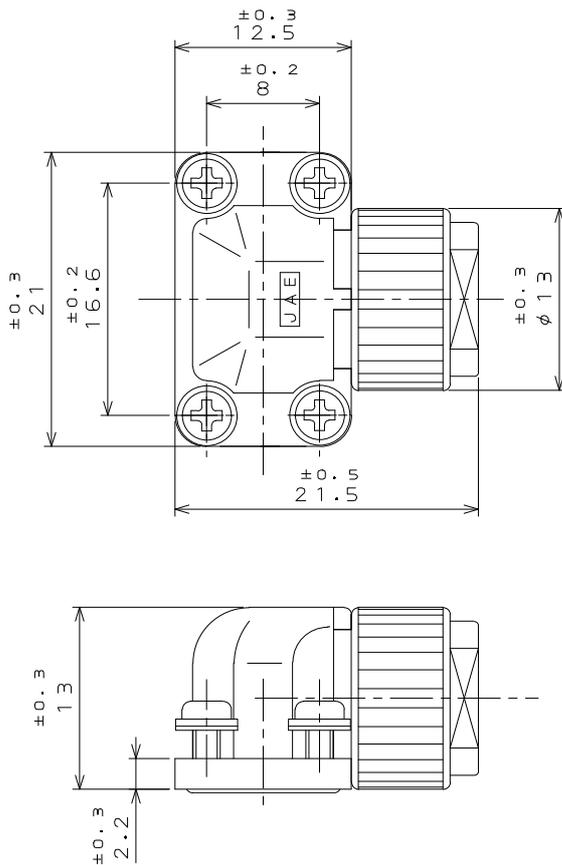
[Receptacle/ 2pos.]



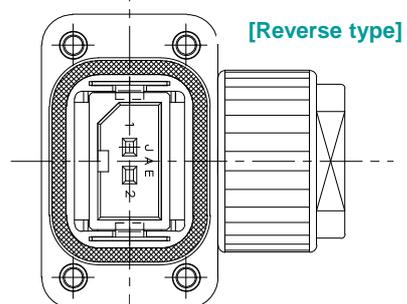
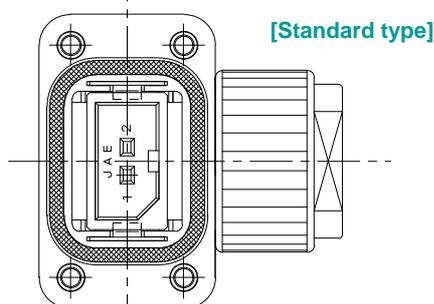
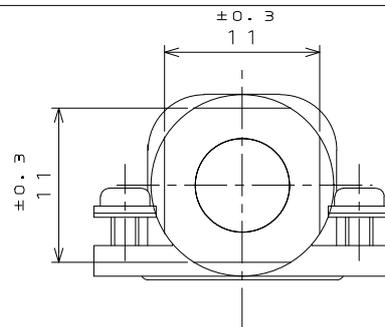
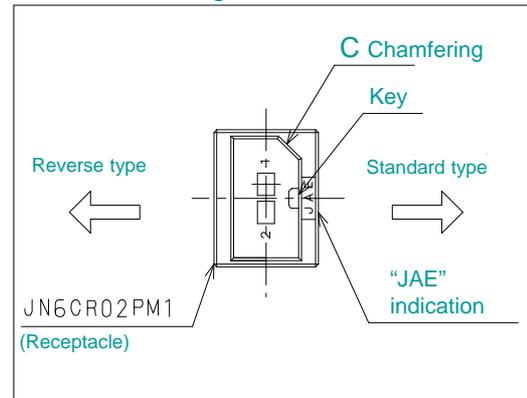
Connector Attachment



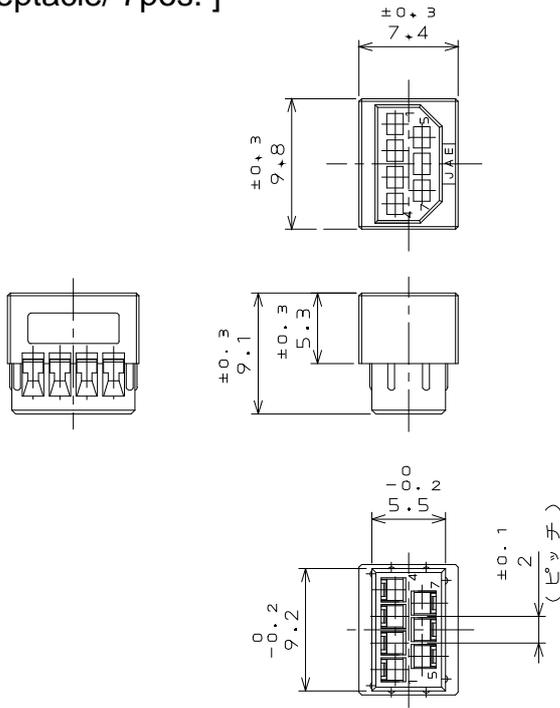
[Angle plug 2pos.]



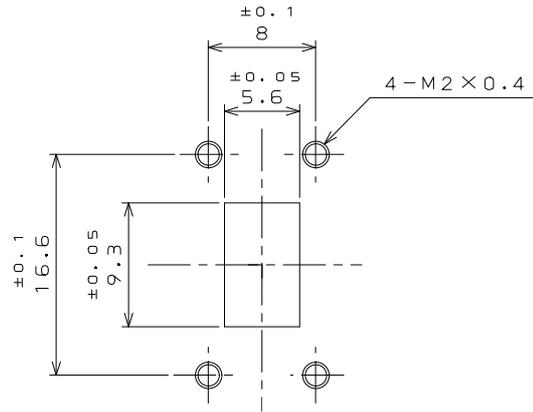
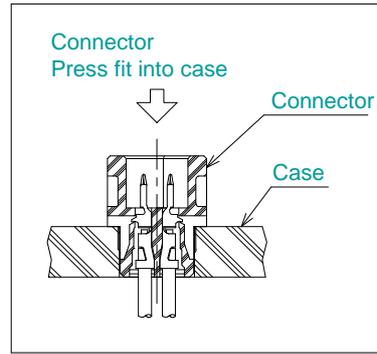
Connector Pulling Out Direction



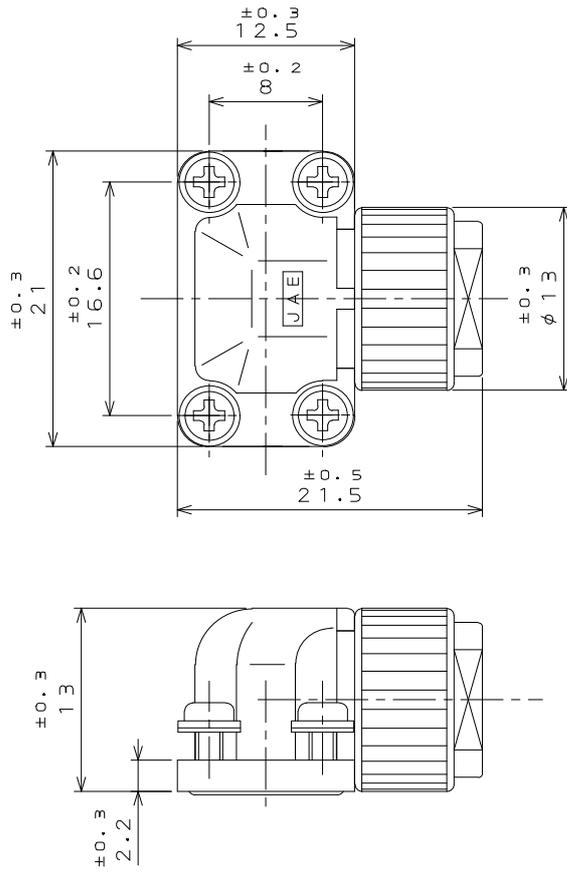
[Receptacle/ 7pos.]



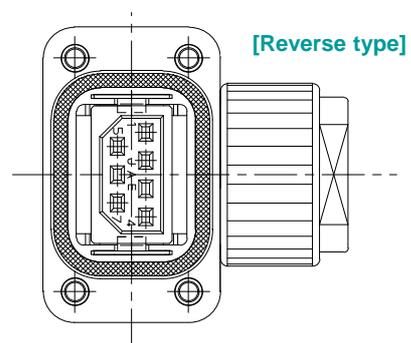
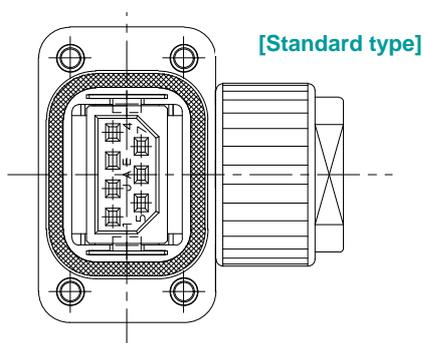
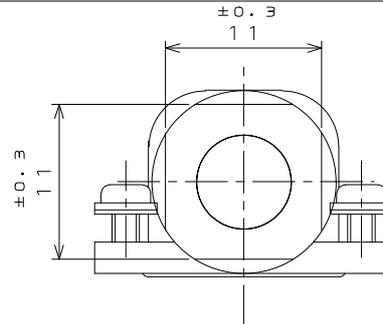
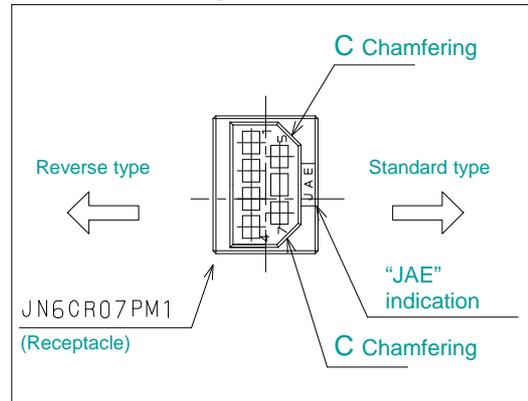
Connector Attachment



[Angle plug 7pos.]



Connector Pulling Out Direction



Japan Aviation Electronics Industry, Limited

Notice: Products shown in this leaflet are made for the applications listed below. However, if the above-mentioned products are to be used in aerospace devices, marine cable-connection devices, atomic power control systems, medical equipment for life-support systems, or any other specific application requiring extremely high reliability, please contact JAE for further information.

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