

**NEW**



One-touch / Screw Mating Compatible  
Circular Waterproof Connector

CONNECTOR

MB-0263-1

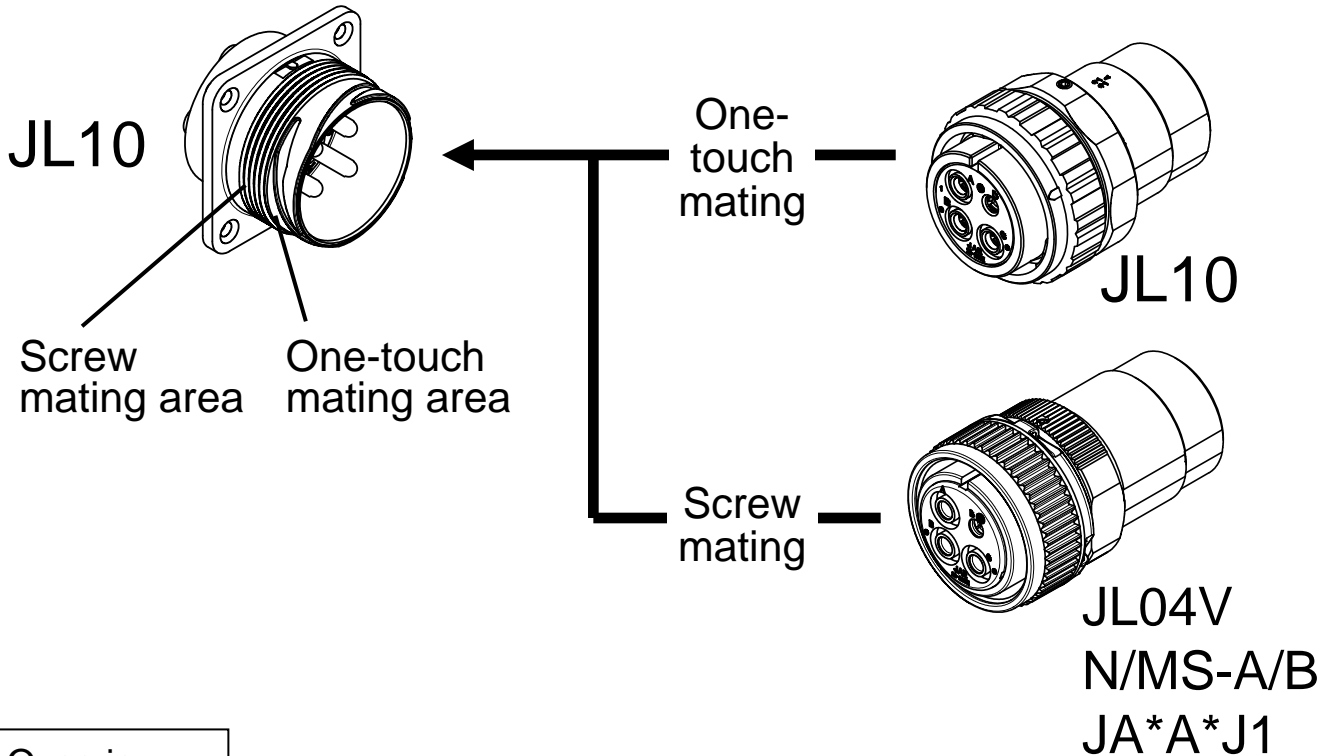
July 2013

# JL10 Series

**RoHS Compliant**

Receptacle

Plug



## Overview

The JL10 Series are one-touch locking circular waterproof connectors for industrial machines approved by TUV as connectors satisfying European safety standards.

The adopted one-touch lock mechanism has a superior mating and unmating operability and it is a product that contributes to ease mating work. Also the JL10 receptacle is a one-touch / screw mating dual connector that has mating compatibility with the conventionally used MIL standard MS connectors and with our screw mating plugs (JL04V, N/MS, JA).

## Applications

Industrial machineries, servo motors, robots, semiconductor-fabrication equipment, communication devices, measuring devices, broadcast devices, and others

## Features

- Adopts a one-touch bayonet lock method for mating and can be mated securely even when it is hard to confirm mating area by sight and in narrow spaces.  
With superior mating and unmating operability it improves mating and unmating work (improved screw fastening work, and no need for torque control)
- JL10 Receptacle is a one-touch / screw mating dual type.  
One-touch mating: when using JL10 plug  
Screw mating: MIL standard MS connector and our general type N/MS-A/B Series, JL04V Series, JA\*A Series using J1 type plug
- With guide mark (color: white) on JL10 Series receptacle and plug mating condition can be confirmed by sight.
- Low-profile compact design and direction of the cable leader of angled type can be set in arbitrary 8 directions in 45 degrees increments.
- Cable clamp is the same as JL04V.
- UL and TÜV approval obtained products.
- IP67 waterproof and dustproof.  
Receptacle is individually water-proofed.
- Environmental resistance with superior vibration and oil resistance.

## General Specifications

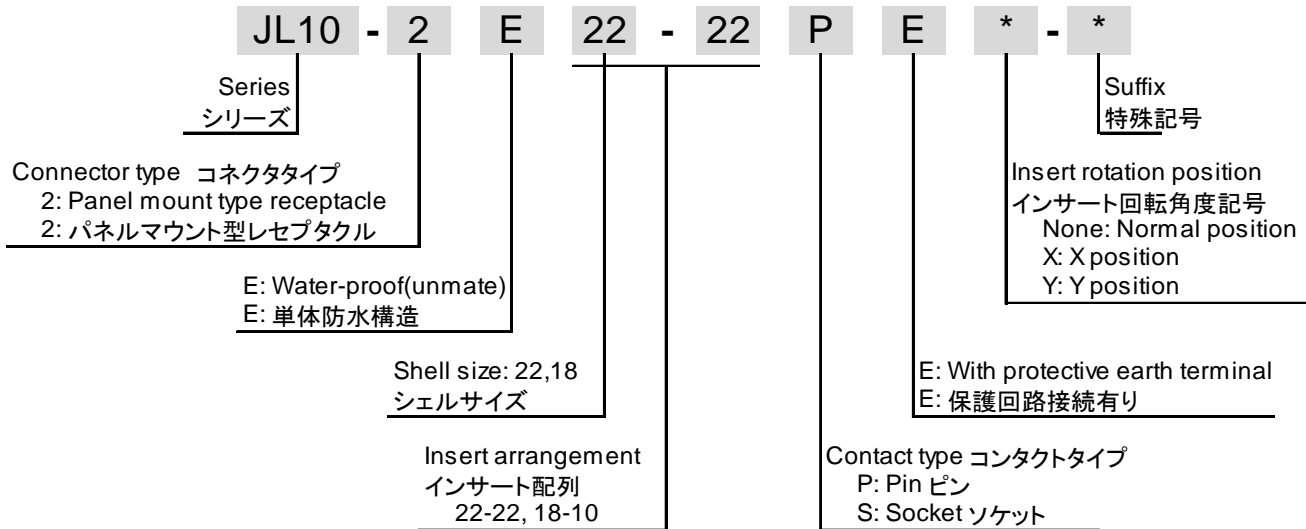
Items	Specification and Performance	
Array	18-10 (#12 size contact X 4 pos.)	22-22 (#8 size contact X 4 pos.)
Rated Current	23A / position max.	46A / position max. 57A / position max. (applicable wire 8 to 10mm <sup>2</sup> )
Rated Voltage	500VAC (pollution level: 2 / over-voltage category II) 250VAC (pollution level: 3 / over-voltage category III)	500VAC (pollution level: 2 / over-voltage category II) 250VAC 500VAC (pollution level: 3 / over-voltage category III)
Dielectric Withstanding Voltage	2000VAC (per minute)	2000VAC (per minute)
Insulation Resistance	1000MΩ min. (DC500V energized)	1000MΩ min. (DC500V energized)
Waterproof Performance	IP67	IP67
Termination	Soldering connection 3.5mm <sup>2</sup> max.	Soldering connection 10mm <sup>2</sup> max.
Product Specification	JACS-50101	JACS-50101
Handling Instruction	JAHL-50101	JAHL-50101
Durability	500 mating cycles	500 mating cycles

Please refer to the drawings for each product for further information.

	Components	Material / Finish
Receptacle	Contact	Copper alloy / silver plating
	Earth Pin	Copper alloy / silver plating
	Front Insulator	Silicon rubber
	Rear Insulator	Synthetic resin
	Shell	Aluminum alloy / zinc plating
	Retaining Ring	Copper alloy / zinc plating
Individual Plug	Set Screw	Steel / zinc plating
	O Ring	Synthetic rubber
	Retaining Ring	Copper alloy / zinc plating
	Wave Spring	Stainless Steel
	C Type Ring	Stainless Steel
	Contact	Copper alloy / silver plating
	Front Insulator	Synthetic resin
	Rear Insulator	Synthetic resin
	Assembly Nut	Aluminum alloy / zinc plating
	Coupling Nut	Aluminum alloy / zinc plating
	Barrel	Aluminum alloy / zinc plating
Straight Plug Angle Plug	Endbell	Aluminum alloy / zinc plating
	Set Screw	Steel / zinc plating
	O Ring	Synthetic rubber
	Retaining Ring	Copper alloy / zinc plating
	Wave Spring	Stainless Steel
	C Type Ring	Stainless Steel
	Contact	Copper alloy / silver plating
	Front Insulator	Synthetic resin
	Rear Insulator	Synthetic resin
	Assembly Nut	Aluminum alloy / zinc plating
	Coupling Nut	Aluminum alloy / zinc plating
	Barrel	Aluminum alloy / zinc plating

## Ordering Information and Line-up

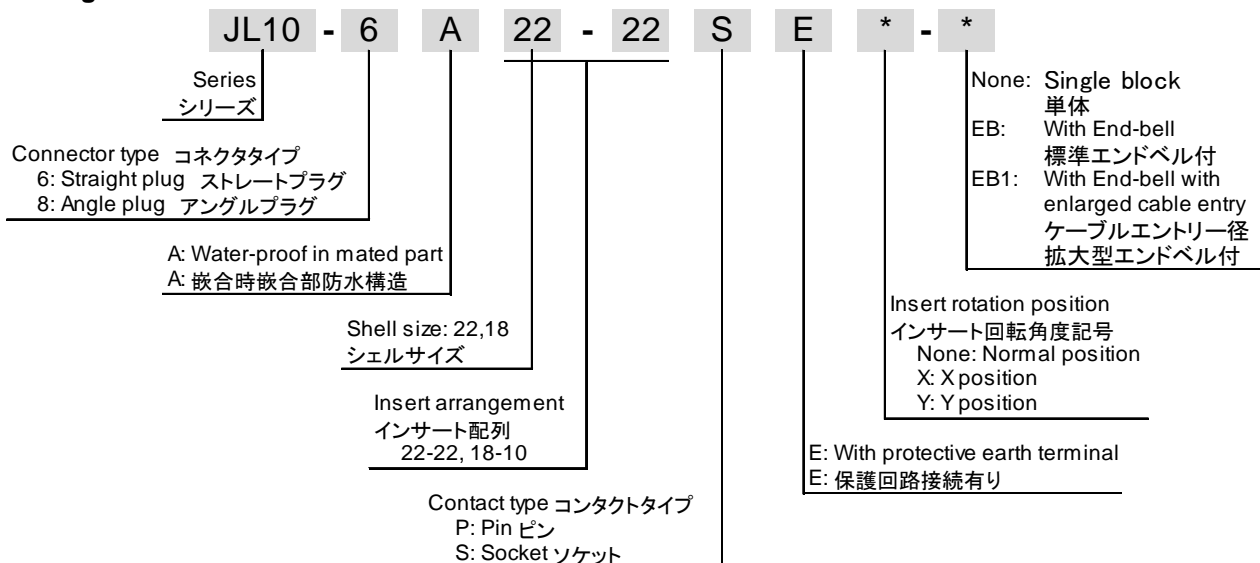
### <<Receptacle>>



Connector Type	Part Number	Array	Contact Type	Waterproof Type	SJ Drawing No.
Receptacle	JL10-2E18-10PE	18-10	Pin	Individually Waterproofed	SJ112315
	JL10-2E22-22PE	22-22	Pin	Individually Waterproofed	SJ112313

Please consult us when concerning receptacle.

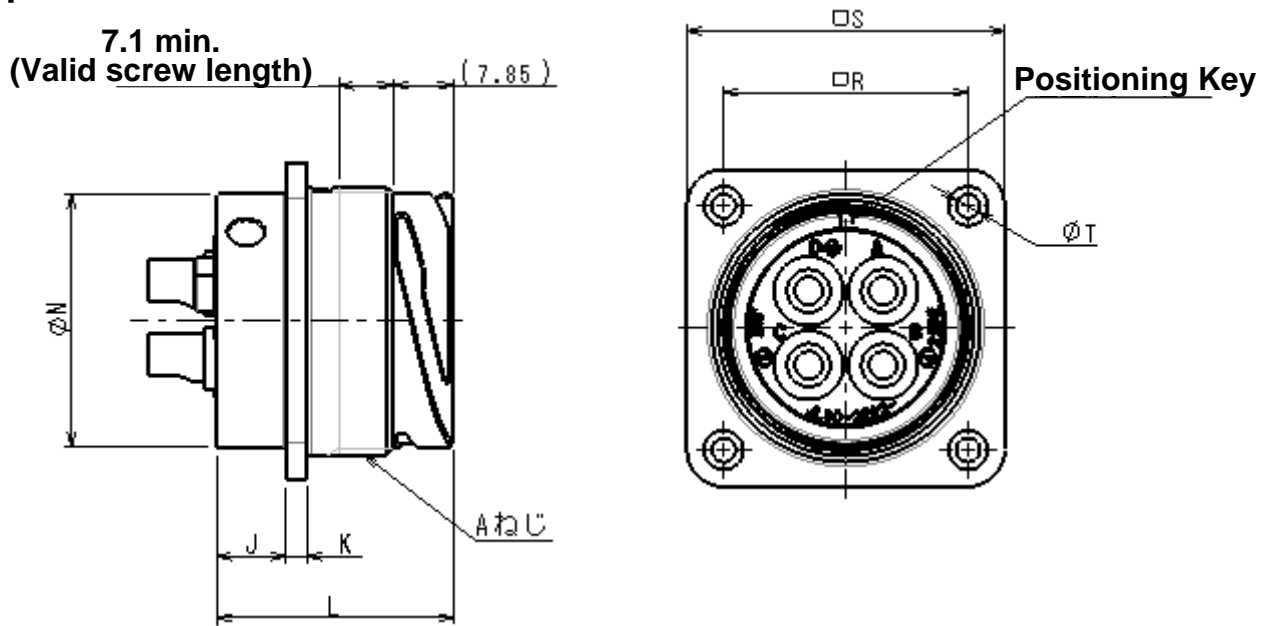
### <<Plug>>



Connector Type	Part Number	Array	Contact Type	SJ Drawing No.
Individual Plug	JL10-6A18-10SE	18-10	Socket	SJ112323
	JL10-6A22-22SE	22-22	Socket	SJ112320
Straight Plug	JL10-6A18-10SE-EB	18-10	Socket	SJ112322
	JL10-6A22-22SE-EB	22-22	Socket	SJ112317
Straight Plug (compatible with thick wire)	JL10-6A22-22SE-EB1	22-22	Socket	SJ112319
Angle Plug	JL10-8A18-10SE-EB	18-10	Socket	SJ112321
	JL10-8A22-22SE-EB	22-22	Socket	SJ112316
Angle Plug (compatible with thick wire)	JL10-8A22-22SE-EB1	22-22	Socket	SJ112318

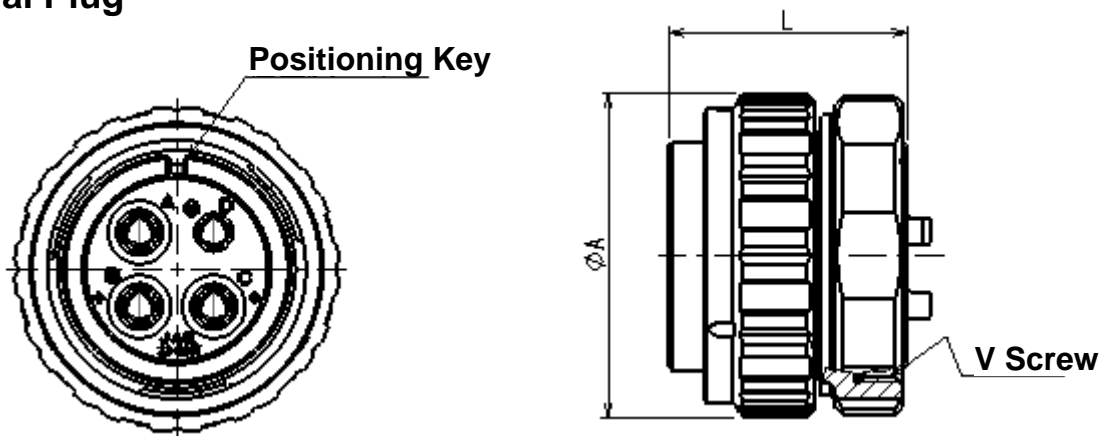


### Receptacle



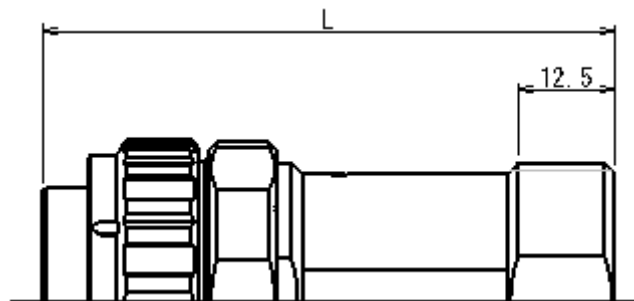
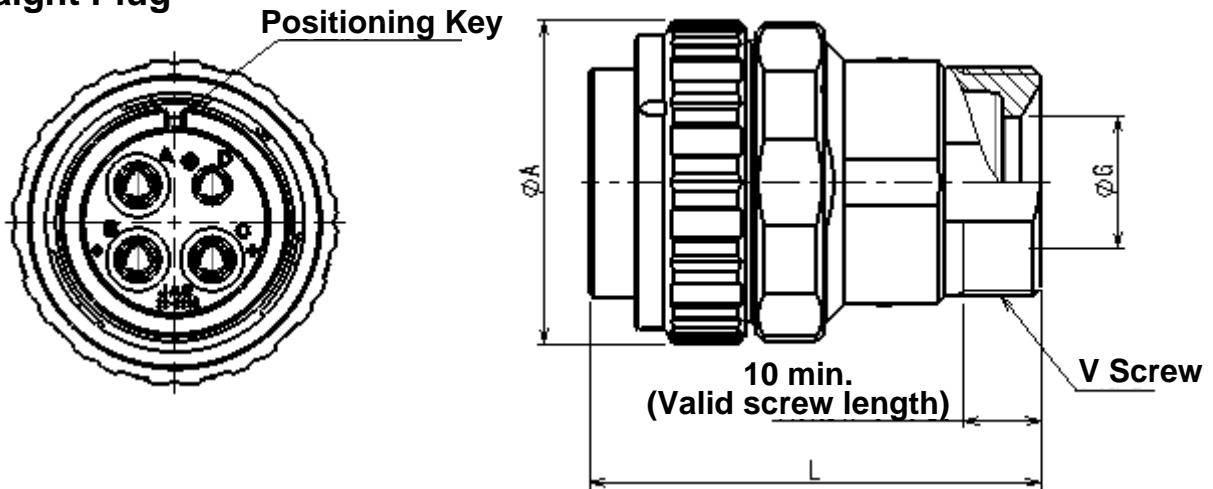
Part Number	A Screw	K ±0.3	J ±0.3	L ±0.3	Dia. N 0 -0.4	□R ±0.13	□S ±0.79	Dia. T +0.2 -0.1
JL10-2E18-10PE	1 1/8-18UNEF-2A	2.7	8.25	30	27	26.97	34.9	3.1
JL10-2E22-22PE	1 3/8-18UNEF-2A	2.7	9.1	30.85	33	31.75	41.3	3.1

### Individual Plug

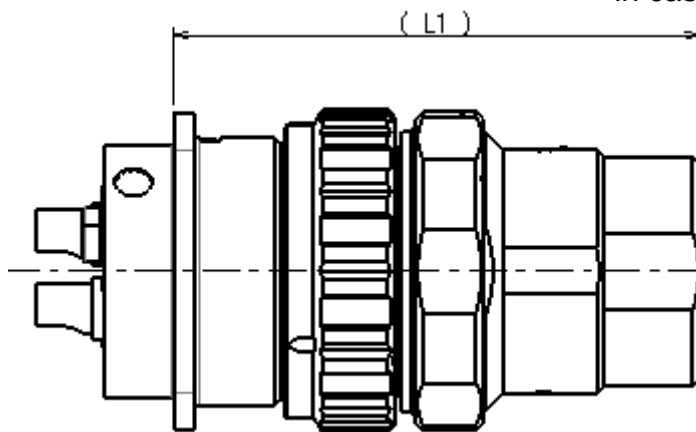


Part Number	Dia. A ±0.8	L ±0.4	V Screw
JL10-6A18-10SE	35.85	30	1 3/16-18UNEF-2B
JL10-6A22-22SE	42.2	31.05	1 7/16-18UNEF-2B

**Straight Plug**



For reference:  
in case of 22-22SE-EB1

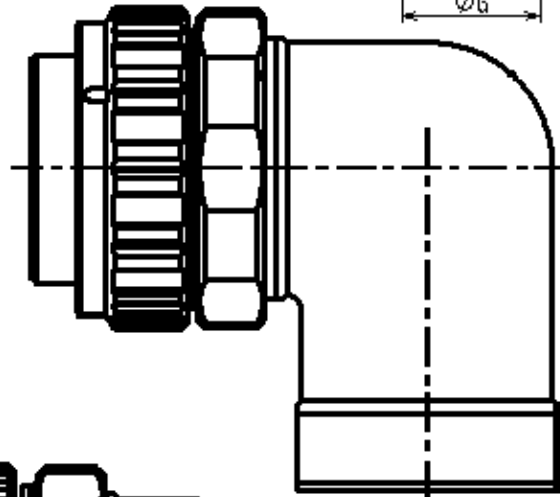
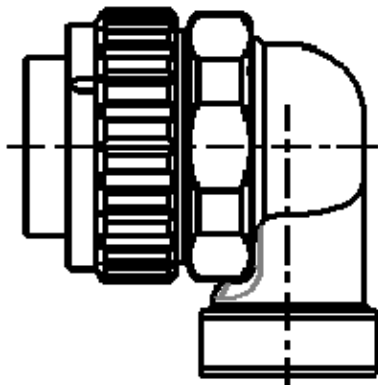
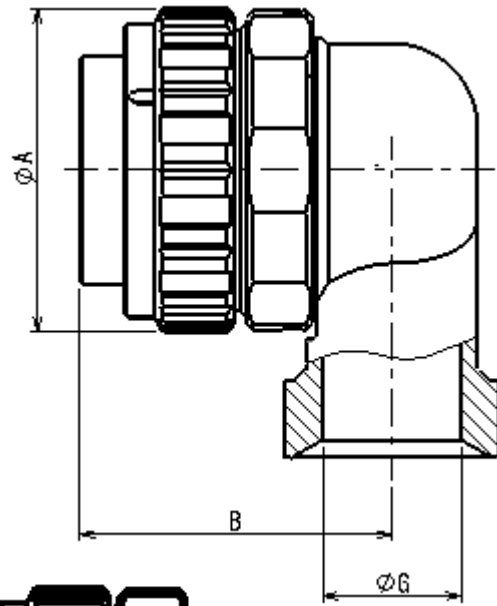
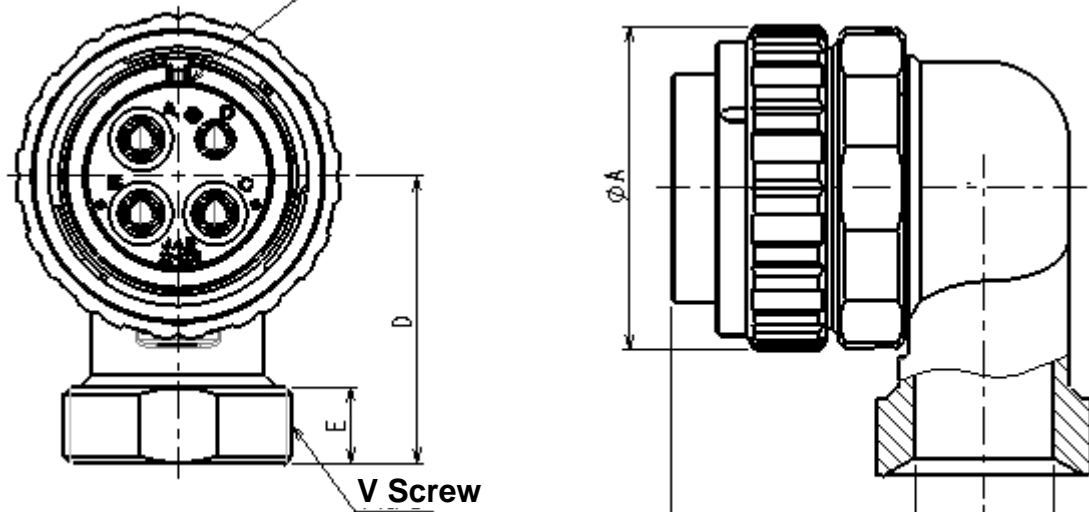


For reference:  
in case of 22-22SE-EB

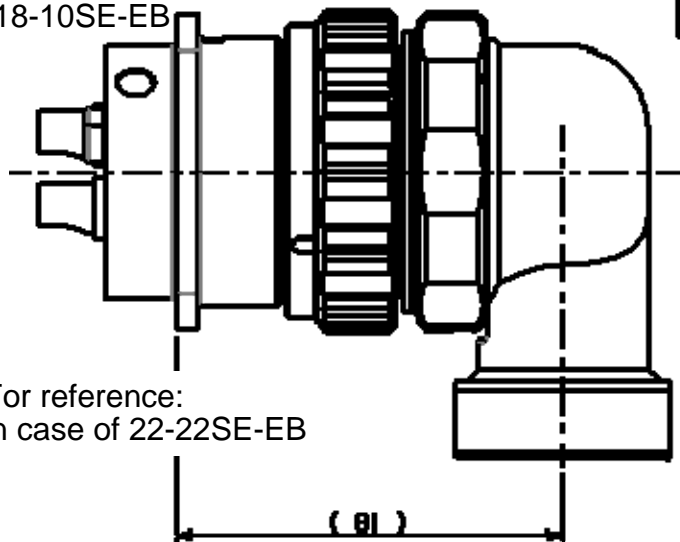
Part Number	Dia. A $\pm 0.8$	Dia. G $\pm 0.5$	L $\pm 0.8$	(L1)	V Screw
JL10-6A18-10SE-EB	35.85	15	51.05	60.58	1-20UNEF-2A
JL10-6A22-22SE-EB	42.2	17	58.65	68.45	1 3/16-18UNEF-2A
JL10-6A22-22SE-EB1	42.2	22	74.35	84.15	1 7/16-18UNEF-2A

**Angle Plug**

**Positioning Key**



For reference:  
in case of 18-10SE-EB



For reference:  
in case of 22-22SE-EB1

For reference:  
in case of 22-22SE-EB

Part Number	Dia. A $\pm 0.8$	B $\pm 0.8$	(B1)	D $\pm 0.8$	E $\pm 0.5$	Dia. G $\pm 0.5$	V Screw
JL10-8A18-10SE-EB	35.85	34.55	44.35	30	8.5	16	1-20UNEF-2A
JL10-8A22-22SE-EB	42.2	40.65	50.45	37.4	10	18	1 3/16-18UNEF-2A
JL10-8A22-22SE-EB1	42.2	51.6	61.4	42	10	22	1 7/16-18UNEF-2A



**Accessory: Cable Clamp (sold separately)**

Cable clamp is the same as our JL04V Series.

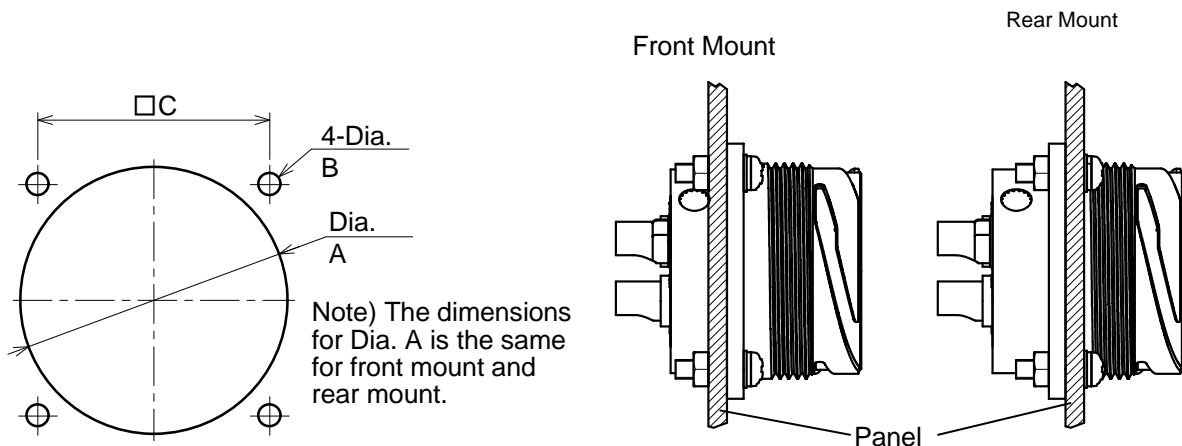
Cable Clamp Part Number	Applicable Cable Diameter	Applicable Connector
JL04-18CK(07)-*-R	Dia. 5 to Dia. 8	JL10-6A18-10SE-EB JL10-8A18-10SE-EB
JL04-18CK(13)-*-R	Dia. 11 to Dia. 14.1	
JL04-2022CK(09)-*-R	Dia. 6.5 to Dia. 9.5	JL10-6A22-22SE-EB JL10-8A22-22SE-EB
JL04-2022CK(12)-*-R	Dia. 9.5 to Dia. 13	
JL04-2022CK(14)-*-R	Dia. 12.9 to Dia. 16	
JL04-2428CK(11)-*-R	Dia. 9 to Dia. 12	JL10-6A22-22SE-EB1 JL10-8A22-22SE-EB1
JL04-2428CK(14)-*-R	Dia. 12 to Dia. 15	
JL04-2428CK(17)-*-R	Dia. 15 to Dia. 18	
JL04-2428CK(20)-*-R	Dia. 18 to Dia. 20	

**Panel Mount Dimensions for Reference**

(1) Front mount: Receptacle is attached to the front side of the panel and case. Cable termination side will be inside when attached.

(2) Rear mount: Receptacle is attached to the back side of the panel and case. Please be aware of the panel thickness when concerning this product.

\* Attachment dimensions are the same as our JL04V Series.



Shell Size	Dia. A ±0.5	Dia. B	□C±0.13	Attachment Screw (for reference)		Max Thickness of Rear Mount Panel
				Metric screw thread	Unified screw thread	
18	30.2	3.3	26.97	M3	#4-40	3mm max.
22	36.6	3.3	31.75	M3	#4-40	3mm max.

**Accessory: Gasket (Sold separately)**

There is a gasket to prevent water immersion from the holes on main case when receptacle is attached to panel (case). Gasket is the same as our JL04V Series.

Note 1) For the screw hole area there is a need for water immersion countermeasure other than the gasket. Please prepare countermeasures at customers.

Shell Size	Gasket No.	SJ Drawing
18	075-50157	SJ009289
22	075-50159	SJ009289

**Cautions**

<<JL10 Caution 1>>



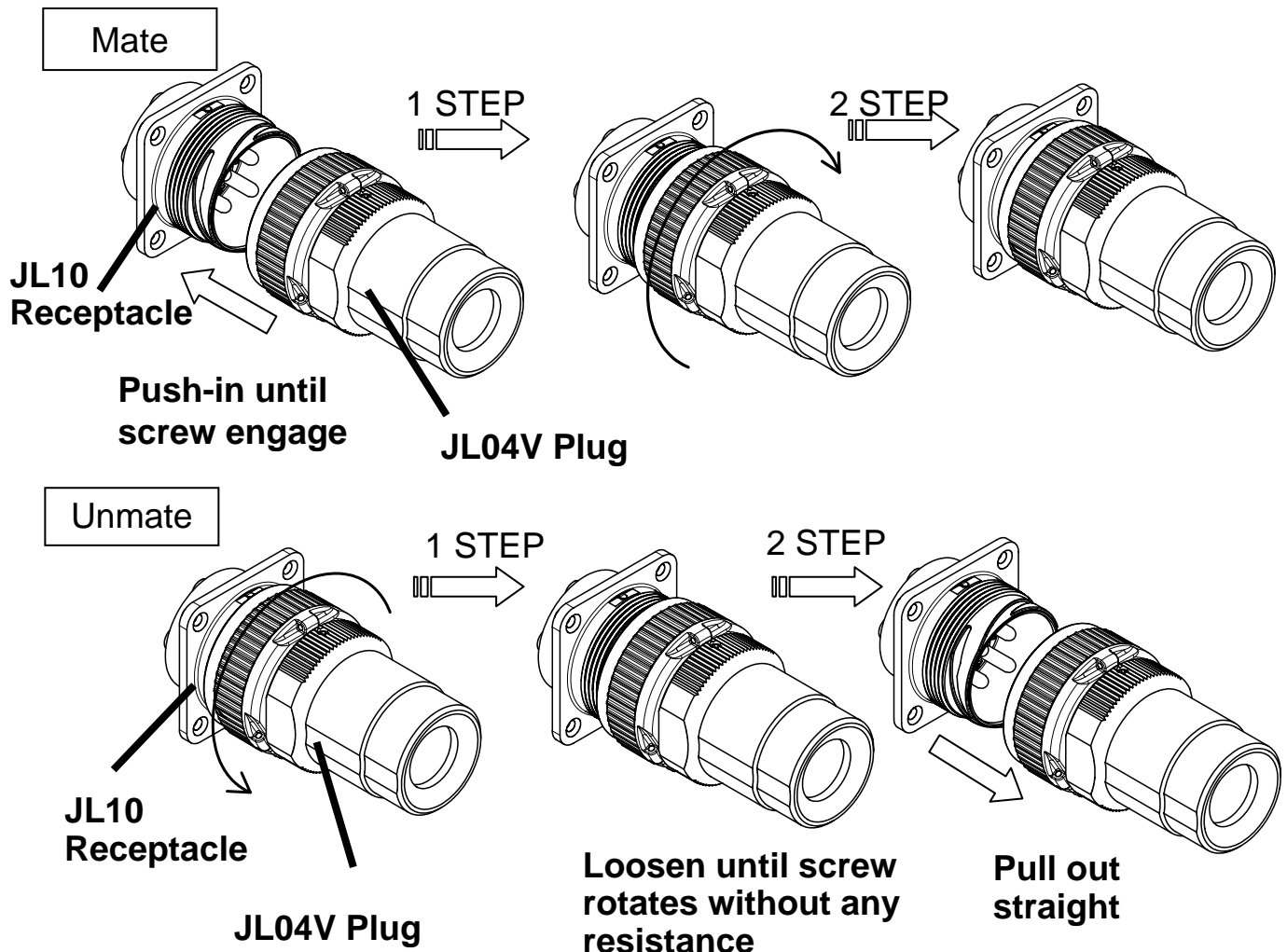
Please note that JL10 plug cannot be mated with JL04V receptacle.

	Receptacle	Plug	Mating
Combinations	<b>JL04V</b>	<b>JL10</b>	<b>NG</b>
	JL04V	JL04V	OK
	JL10	JL04V	OK
	JL10	JL10	OK

<<JL10 Caution 2>>



When using JL10 receptacle and JL04 plug, mating and unmating operation will be the two steps as shown below.







Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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