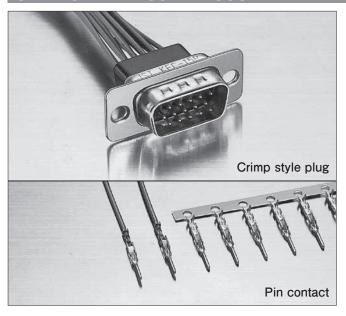


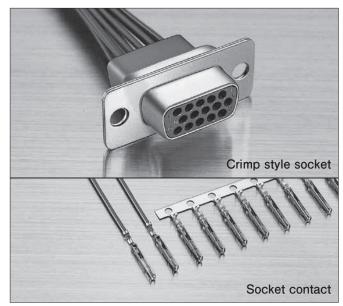
# DSUBMINIATURE JK SERIES

Crimp style plug and socket

#### CRIMP STYLE PLUG AND SOCKET

**FL** 





## Features -

- The dimples in the shell provide the ground connection and are an important factor in preventing electromagnetic interference.
- The contact has a retention lance that makes assembly to the housing smooth and secure.

Standards -

Recognized E60389

⊕ Certified LR20812

- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.
- \* RoHS2 compliance

## Specifications -

## Materials

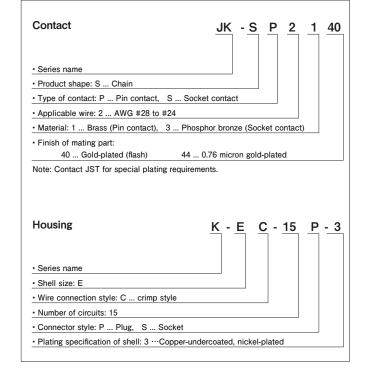
Connector	Part name	Material and Finish			
		Brass, nickel-undercoated,			
	Contact	Mating part; gold-plated			
Plug		Crimping part; tin-plated (reflow treatment)			
	Insulator	ilass-filled PBT, UL94V-0, black			
	Shell	Steel, copper-undercoated, nickel-plated			
	Contact	Phosphor bronze,			
		Nickel-undercoated,			
Socket		Mating part; gold-plated			
SUCKEL		Crimping part; tin-plated (reflow treatment)			
	Insulator	Glass-filled PBT, UL94V-0, black			
	Shell	Steel, copper-undercoated, nickel-plated			

#### Characteristics

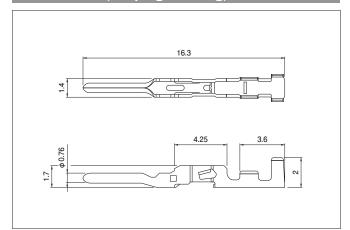
Current rating	1.0 A AC/DC (AWG #24)
Voltage rating	250 V AC/DC
Temperature range	-40°C to +85°C (including temperature rise in applying electrical current)
Contact resistance	Initial value/ 15 m $\Omega$ max. After environmental tests/ 30 m $\Omega$ max.
Insulation resistance	5,000 MΩ min.
Withstanding voltage	1,000 VAC/minute

Note: Contact JST for details.

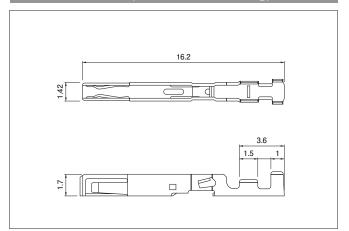
#### Model number identification



## Pin contact (for plug housing)



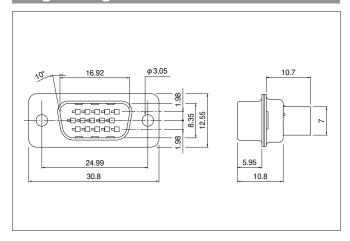
## Socket contact (for socket housing)



Mod	el No.	Finish at mating yout	Applica	Q'ty/box		
Pin contact	Socket contact	Finish at mating part	AWG #	Insulation O.D. (mm)	G ty/DOX	
JK-SP2140	JK-SS2340	Gold-plated (flash)	28~24	0.9~1.4	10.000	
JK-SP2144	JK-SS2344	Gold-plated (0.76 micron)	201-24	0.9** 1.4	10,000	

RoHS2 compliance This product displays (LF)(SN) on a label.

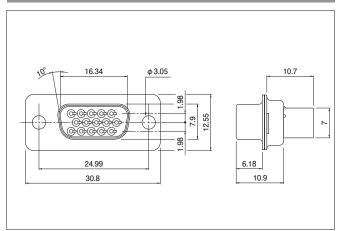
## Plug housing



Circuits	Model No.	Q'ty/box
15	KEC-15P-3	100

RoHS2 compliance

## Receptacle housing



Circuits	Model No.	Q'ty/box
15	KEC-15S-3	100

RoHS2 compliance

## Crimping machine, Applicator

Contact	Crimping machine	Applicator	Crimp applicator with dies
J-SP2***	AP-K2N	MKS-L	APLMK J-SP/SS2
J-SS2***	AP-NZIN	IVINS-L	APLMK J-SP/SS2

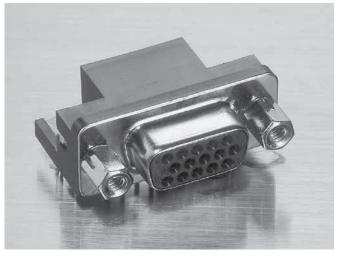


# DSUBMINIATURE JK SERIES

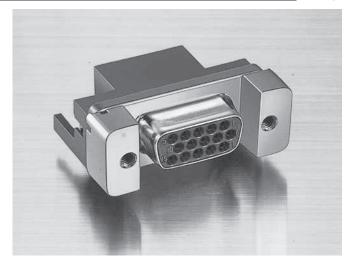
Right angle through-hole plug and socket

## RIGHT ANGLE THROUGH-HOLE SOCKET





(with hexagonal lock screw blocks)



(with rectangular lock screw blocks)

## Features -

• The mating section of the contact has a twin-contact style construction with uniform elasticity to ensure a reliable contact even when repeatedly mated and unmated.

### Standards -

Recognized E60389

G: Certified LR20812

- · A wide variety of grounding adapters are available so that the receptacle can be grounded to the circuitry of a printed circuit board to prevent electromagnetic interference.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.
- \* RoHS2 compliance

## Specifications ————

#### **Materials**

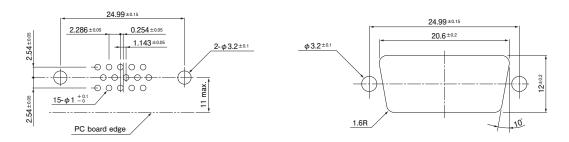
Part name	Material and Finish		
	Phosphor bronze, nickel-undercoated,		
Contact	Mating part; gold-plated		
	Solder tail; tin-plated (reflow treatment)		
Insulator	Glass-filled PBT, UL94V-0, black		
Shell	Steel, copper-undercoated, nickel-plated		
Grounding adapter having a 3.2 mm dia. hole	Steel, copper-undercoated, nickel-plated		
Grounding adapter having an M3 tapped hole	Steel, copper-undercoated, nickel-plated		
Grounding adapter having a spring lock device	Brass, nickel-undercoated, tin/copper alloy-plated		

#### Characteristics

Current rating	1.0 A AC/DC (AWG #24)
Voltage rating	250 V AC/DC
Temperature range	-40°C to +85°C (including temperature rise in applying electrical current)
Contact resistance	Initial value/ 15 m $\Omega$ max. After environmental tests/ 30 m $\Omega$ max.
Insulation resistance	5,000 MΩ min.
Withstanding voltage	1,000 VAC/minute

Note: Contact JST for details.

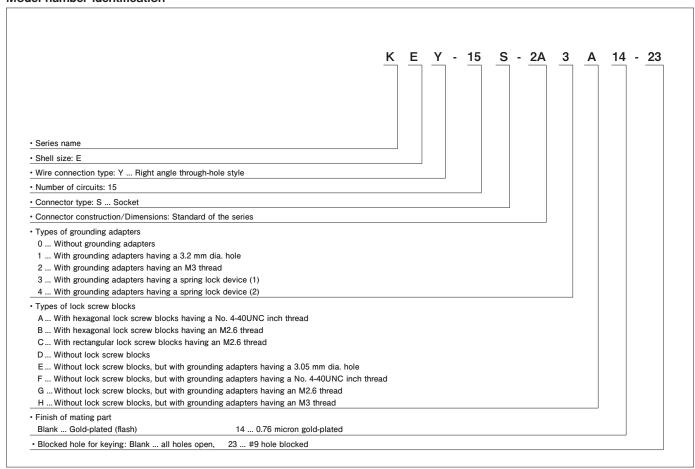
## PC board layout (viewed from component side)



Note: 1. Tolerances are non-cumulative:  $\pm$  0.05 mm for all centers.

Hole dimensions differ according to the type of PC board and piercing method.The dimensions above should serve as a guideline. Contact JST for details.

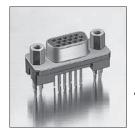
#### Model number identification



Note: Contact JST for special plating requirements.

Right an	ngle through-hole s	socket		Type A	Type B
	10° 16.34	8 ,	6.18	VE SEAR	VOE O
No.9 hole	0.75 24.99 30.8	3.2 7.9 7.9 12.6	2.54 0.6 8.89 2.54	With hexagonal lock screw blocks (H: 6.3 mm) having a No.4-40UNC inch thread	With hexagonal lock screw blocks (H: 6.3 mm) having an M2.6 thread
H: Height of the	lock screw block (for Types A, E			_	
Circuits	Gold-plated (flash)		76 micron) socket Q'ty/box		
15	socket KEY-15S-2A**		-2A**14-23 100 (☆.		
Note: 1. Please 2. ** sho For ex No. 4-	ws the location where a two-di ample, if a 15-circuit gold-plate	ued product depending of git code (see the table b d (flash) socket with hexa t grounding adapters is re	on the combination of accessories. below for codes) should be entered agonal lock screw blocks having a equired, specify the model number	No.4-40UNC	M2.6
Without gr	ounding adapters			0A	0В
	nding adapters mm dia. hole			_	1B
With grour with an M	nding adapters 3 thread			2A	2B
	nding adapters ing lock lever (1)			3A	3B
	nding adapters ing lock device (2)			_	_

Type C	Type D	Type E	Type F	Type G	Type H	
	4000					
With rectangular lock screw blocks	Without lock screw blocks	Without lock screw blocks E: Grounding adapter has no thread. F, G, H: Grounding adapters have a thread (*1) for securing separately-purchased lock screw blocks (*2)				
(H: 6.2 mm) having an M2.6 thread		Used a lock screw block [model number KFS-( )S-C1N]	*1: No.4-40UNC inch thread *2: Model number KFS-4S-( )1W(M)	*1: M2.6 thread *2: Model number KFS-2.6S-( )1W(M)	*1: M3 thread *2: Model number KFS-3S-( )1W(M)	
M2.6		\$3.05	No.4-40UNC	M2.6	M3	
0C	0D					
1C	1D	1E	1F	1G		
2C	2D	2E	2F			
3C	3D	3E	3F	3G		
_					4H	

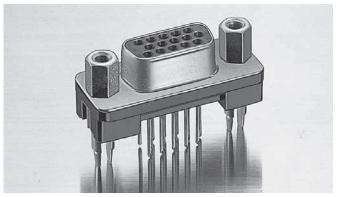


# DSUBMINIATURE JK SERIES

Straight through-hole socket

## STRAIGHT THROUGH-HOLE SOCKET

**71**®



(with hexagonal lock screw blocks)



(without lock screw blocks)

## Features -

 The mating section of the contact has a twin-contact style construction with uniform elasticity to ensure a reliable contact even when repeatedly mated and unmated.

## Specifications -

#### **Materials**

Part name	Material and Finish	
	Phosphor bronze,	
Contact	nickel-undercoated,	
Contact	Mating part; gold-plated	
	Solder tail; tin-plated (reflow treatment)	
Insulator	Glass-filled PBT, UL94V-0, black	
Shell	Steel, copper-undercoated, nickel-plated	
Grounding adapter	Brass, nickel-undercoated, tin/copper alloy-plated	

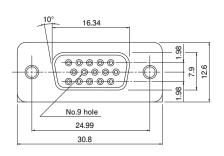
· A grounding adapter with a spring lock device allows the connector to be temporarily secured on the printed circuit board so that the connector can be soldered easily.

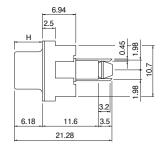
#### Characteristics

Current rating	1.0 A AC/DC
Voltage rating	250 V AC/DC
Temperature range	-40°C to +85°C (including temperature rise in applying electrical current)
Contact resistance	Initial value/ 15 m $\Omega$ max. After environmental tests/ 30 m $\Omega$ max.
Insulation resistance	5,000 MΩ min.
Withstanding voltage	1,000 VAC/minute
Applicable PC hoard thickness	1.6 mm

Note: Contact JST for details.

## Straight through-hole socket





Type A

With hexagonal lock screw blocks (H: 6.3 mm) having a No.4-40UNC inch thread

H: Height of the lock screw block (for Types A & B)

	Model No.				
Circuits	Gold-plated (flash) socket	Gold-plated (0.76 micron) socket with No.9 hole blocked	Q'ty/ box		
15	KES-15S-2A**	KES-15S-2A**14-23	100		

RoHS2 compliance This product displays (LF)(SN) A on a label.

Note: \*\* shows the location where a two-digit code (see the table below for codes) should be entered. For example, if a 15-circuits gold-plated (flash) socket with hexagonal lock screw blocks having a No. 4-40UNC inch thread and with grounding adapters having a spring lock device is required, specify the model number as KES-15S-2A3A.



With grounding adapters with a spring lock device

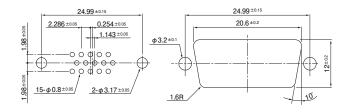
3A

## Standards -

#### 

- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.
- \* RoHS2 compliance

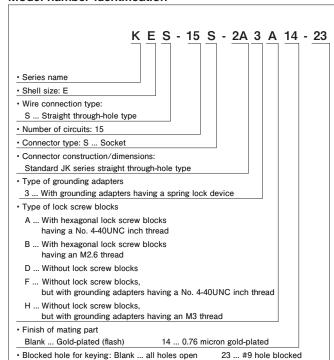
## PC board layout (viewed from component side) and Panel layout



Note: 1. Tolerances are non-cumulative:  $\pm$  0.05 mm for all centers.

Hole dimensions differ according to the type of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.

#### Model number identification



Note: Contact JST for special plating requirements.

Type B	Type D	Type F	ТуреН
With hexagonal lock screw blocks (H: 6.3 mm) having an M2.6 thread	Without lock screw blocks	Without lock screw block F, H: Grounding adapters h securing separately-p blocks (*2)	ave a thread (*1) for
		*1: No.4-40UNC inch thread *2: Model number JFS-4S-( )1W(M)	*1: M3 thread *2: Model number JFS-3S-( )1W(M)
M2.6		No.4-40UNC	M3
3B	3D	3F	3H



# DSUBMINIATURE J&JK SERIES

Accessories/EMI prevention shielding cover (J cover)

## J COVER





## **Features**

- This shielding cover is made of steel, formed by our advanced stamping technology, and nickel-plated.
- The box-shaped cover completely encloses such EMI radiating areas as the connections between the connector and wires. The result is a superior shielding effect.
- To install the shielding cover, simply align and press the upper and lower cover elements, then tighten the nuts. It then securely grips the round cables.
- This cover is so compact, light and sturdy, that it can be used to cover the connectors of any input/output cable. Moreover, it is attractive in appearance.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.
- \* RoHS2 compliance

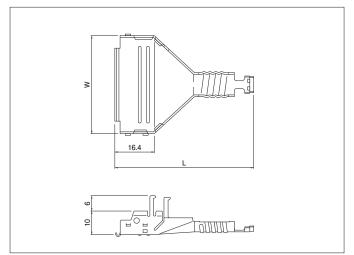
## Standards -

Recognized E60389

#### Applicable cable dimensions

Circuits	J series	9	15	25	37
	JK series	15	_	_	_
Cable outer diameter (mm)		7.0	± 0.2	8.0 ± 0.2	10.0 ± 0.2

## Shielding cover A



J series		JK series		Dimensions (mm)		Q'ty/ box	
Circuits	Model No.	Circuits	Model No.	W	L	DOX	
9	J-SC9A	15	JK-SC15A	19.4	42.0	200	
15	J-SC15A	_	_	27.6	46.9	150	
25	J-SC25A	_	_	41.4	57.0	100	
37	J-SC37A	_	_	57.8	70.6	125	

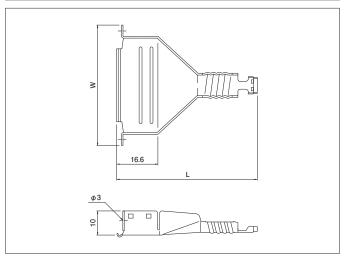
#### Material and Finish

Steel, copper-undercoated, nickel-plated

#### RoHS2 compliance

Note: The cover of the JK series 15-circuit connector is the same as that of the J series 9-circuit connector, except for the number of circuits indicated.

## Shielding cover B



Circuits		Model No.	Dimensio	O'ty/boy	
J series	JK series	Model No.	W	L	Q'ty/box
9	15	J-SC9B	30.0	(42.0)	200
15	_	J-SC15B	38.0	(46.9)	150
25	_	J-SC25B	52.0	(57.0)	150
37	_	J-SC37B	68.0	(70.6)	100

#### Material and Finish

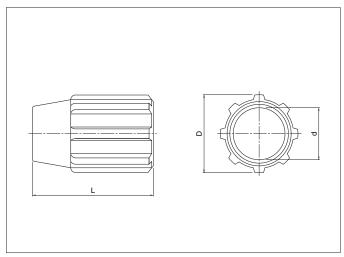
Steel, copper-undercoated, nickel-plated

### RoHS2 compliance

Note: The cover of the JK series 15-circuit connector is the same as that of the J series 9-circuit connector.

E-ring

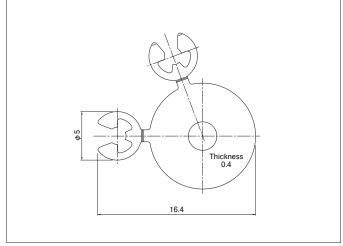
## Cover nut



Circuits	Model No.	D	d	L	Q'ty/box
9	J-CN9 · 15	13.6	7.2	19.0	1.000
15	0-0143 13	15.0	1.2	13.0	1,000
25	J-CN25	16.4	8.4	25.0	1,000
37	J-CN37	18.8	10.4	28.0	1,500

Material Glass-filled, PBT, UL94V-0, black

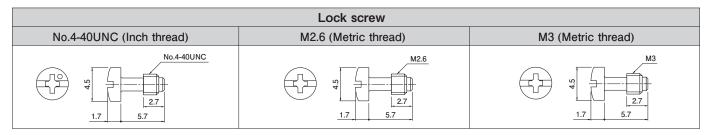
RoHS2 compliance



Model No.	Q'ty/box
J-ER	5,000
Material	
Stainless steel	

RoHS2 compliance

Note: The cover nuts, lock screws and E-rings are used with both the J and JK series connectors.



Type of screw	Model No.	Q'ty/box
No.4-40UNC (Inch thread)	J-SL-1C	5,000
M2.6 (Metric thread)	J-SL-2C	5,000
M3 (Metric thread)	J-SL-3C	5,000

Material and Finish

Steel, copper-undercoated, nickel-plated

RoHS2 compliance

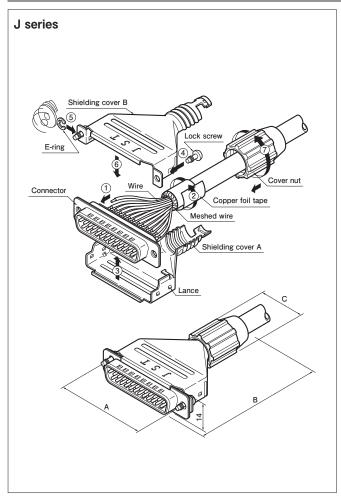
Use the following Model Nos, when ordering J-covers as a set

OSC the following whoter free: which ordering a covers as a set.							
	J series		JK series	Parts in one set			
Circuits	Model No.	Circuits	Model No.	Faits III One Set	Q'ty/box		
9	J-C9-( )C	15	JK-C15-( )C	Shielding cover A 1 pc.	25		
15	J-C15-( )C	_	_	Shielding cover B	25		
25	J-C25-( )C	_	_	Lock screw 2 pcs.	20		
37	J-C37-( )C	_	_	E-ring 1 set	10		

RoHS2 compliance

Note: In the above lock screw model numbers, the number in parentheses indicates the type of screw-1: Inch thread (No.4-40UNC), 2: Metric thread (M2.6), 3: Metric thread (M3).

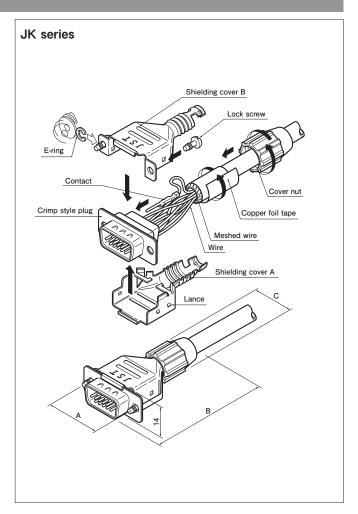
## J-cover assembly procedure



### Assembly procedure

- 1. Connect wires to the connector by soldering or crimping.
- 2. Fold back the braided shielding wire along the outside insulation and wind the copper foil tape around the shielding wire.
- 3. Install the connector into shielding cover A.
- 4. Screw the lock screws onto shielding cover B.
- 5. Install the E-rings.
- 6. Align shielding cover B with shielding cover A and press shielding cover B until it engages the lances of shielding cover A.
- 7. Tighten the cover nut until the predetermined position is reached.

Note: For details of the J-cover assembly procedure, please refer to the processing specifications separately available. The shielding effect of the J-cover is critically dependent on proper assembly.



#### **Dimensions after assembly**

Circuits		Dimensions (mm)			
J series	JK series	Α	В	С	
9	15	24.99	(49.0)	13.6	
15	_	33.32	(53.0)	13.6	
25	_	47.04	(64.5)	16.4	
37	_	63.50	(78.5)	18.9	



# DSUBMINIATURE J&JK SERIES

Accessories/EMI prevention overmolding cover

## **MOLD COVER**



## Features

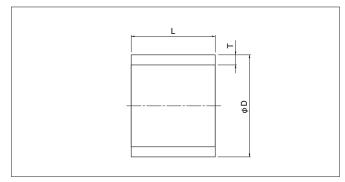
- This cover completely encloses all wire connections to the connector, and its braided wire crimp section ensures a reliable ground connection. The result is excellent shielding.
- This cover is sturdy enough to withstand the high pressure necessary during overmolding. It can thus be finish-molded directly.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.
- \* RoHS2 compliance

#### Applicable cable diameter

Circ	cuits	Cable O.D. (mm)	
J series JK series		Cable C.D. (IIIII)	
9 15		8.6 <sup>±0.2</sup>	
15 —		7.6 <sup>±0,2</sup>	
25	_	8.6 <sup>±0.2</sup>	

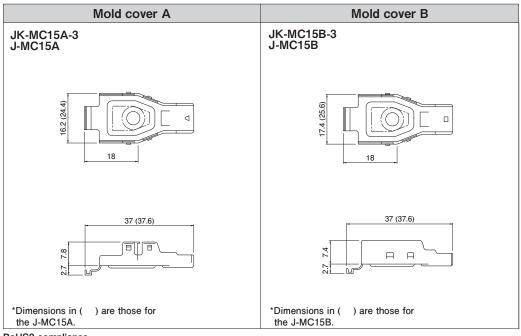
Note: Contact JST for cables other than those listed above.

## Ferrule



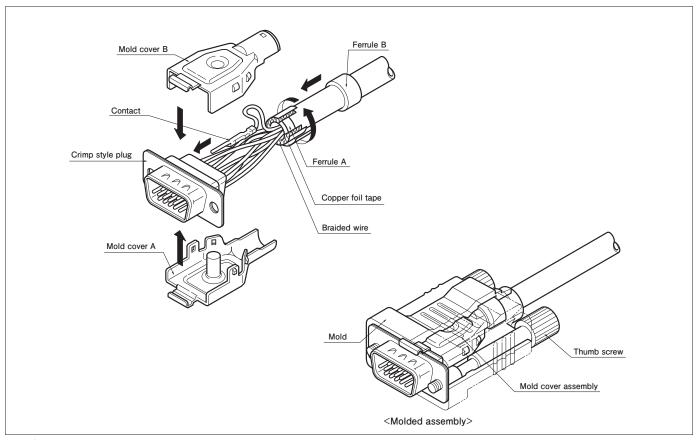
Circuits		Ferrule	Dimensions (mm)		
J series	JK series	renule	φD	Т	L
9 • 25	15	Α	8.0	0.5	4.0
9 - 23		В	11.3	0.6	8.0
15	_	Α	7.0	0.5	4.0
13		В	10.5	0.6	8.0

RoHS2 compliance



RoHS2 compliance

## Mold cover assembly procedure



Note: Customers please prepare mold and thumb screws on your own.

#### Assembly procedure

## 1. Processing braided shielding wire

Pass the cable through ferrule B and remove the insulation at the end of the cable. Install ferrule A and fold back the braided shielding wire along the outside insulation. Then wind the copper foil tape around the shielding wire.

#### 2. Connecting the wires to the contacts

Connect the wires to the contacts by crimping and insert the contacts into the housing.

## 3. Assembling the mold covers

Align mold cover B with mold cover A and press mold cover B until it engages the lances of mold cover A. Install ferrule B over the cable holding section of the cover assembly and crimp ferrule B. This completes the assembly.

Circuits		Dowle name	Model No.	Material and Finish	O't //	
J series	JK series	Parts name	Model No.	Material and Finish	Q'ty/bag	
		Mold cover A	JK-MC15A-3	Steel, copper-undercoated, nickel-plated	ed 500	
9	15	Mold cover B	JK-MC15B-3	Steel, copper-undercoated, nicker-plated		
9		Ferrule A	JK-FL15A-8.0C	Compar tip plated	1,000	
		Ferrule B	JK-FL15B-11.3	Copper, tin-plated	500	
15			Mold cover A	J-MC15A	Steel, copper-undercoated, nickel-plated	200
	_	Mold cover B	J-MC15B	Steel, copper-undercoated, nicker-plated	200	
		Ferrule B	J-FL15B-10.5	Copper, tin-plated	500	

RoHS2 compliance

## Crimping machine, Applicator

Contact	Crimping machine	Applicator	Crimp applicator with dies	
JK-FL15B-11.3	A.D. (/ON)	1440 1 00	APLMK JK-MC15	
J-FL15B-10.5	AP-K2N	MKS-L-RG	APLSC JK-MC15	



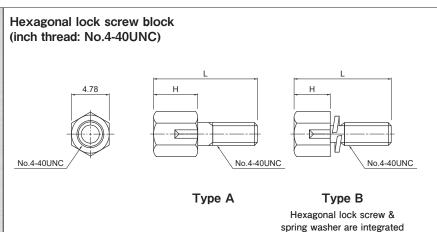
# DSUBMINIATURE J.JH.JK&KH SERIES

## Accessories/Lock screw block

A varietly of accessories are available for the D subminiature connectors.

#### LOCK SCREW BLOCK

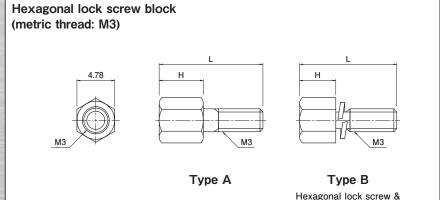




Applicable series  Dimension / Model No.	J series right angle through- hole type JK series straight through- hole type	JK series right angle through- hole type	J series straight through- hole type	JH series right angle through- hole type KH series right angle through- hole type	Dimension H (mm)	Туре	Attachment	Q'ty/ box
Dimension L (mm)	13.1	15.0	10.0	11.8				
	JFS-4S-C1N	KFS-4S-C1N	_	-	5.5		Spring washer 1 pc. Nut 1 pc.	
	JFS-4S-B1W	KFS-4S-B1W	SFS-4S-B1W	HFS-4S-B1W	4.8	Α	Carian wash as 1 as	
Model No.	JFS-4S-C1W	KFS-4S-C1W	_	_	5.5		Spring washer 1 pc.	2,000
	JFS-4S-B1WM	KFS-4S-B1WM	SFS-4S-B1WM	HFS-4S-B1WM	4.8	-		
	JFS-4S-C1WM	KFS-4S-C1WM	_	HFS-4S-C1WM	5.5	В	_	

RoHS2 compliance





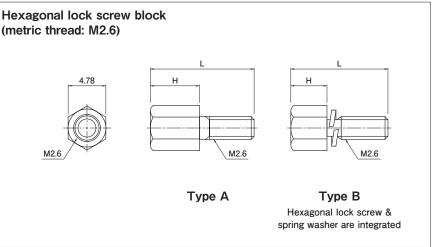
JH series right Applicable angle through-hole type J series straight through-hole type JK series right Dimension angle through-Q'ty/ box KH series right hole type Туре Attachment Dimension/ Model No. angle through-hole type (mm) Dimension L (mm) 15.0 10.0 11.8 SFS-3S-B1W 4.8 Α Spring washer .. 1 pc. SFS-3S-C1W HFS-3S-C1W 5.5 Model No. 2.000 4.8 В KFS-3S-C1WM

RoHS2 compliance

spring washer are integrated

## **D SUBMINIATURE CONNECTOR J.JH.JK&KH SERIES**

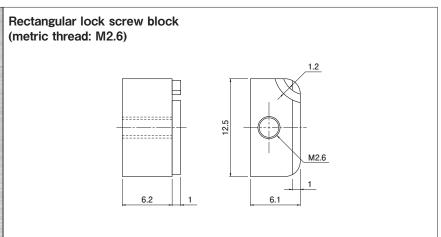




Applicable series  Dimension/ Model No.	J series right angle through- hole type JK series straight through- hole type	JK series right angle through- hole type	J series straight through- hole type	JH series right angle through- hole type KH series right angle through- hole type	Dimension	Туре	Attachment	Q'ty/ box
Dimension L (mm)	13.1	15.0	10.0	11.8				
	JFS-2.6S-C1N	_	-	-	5.5	A	Spring washer 1 pc. Nut 1 pc.	
Model No.	JFS-2.6S-B1W	KFS-2.6S-B1W	SFS-2.6S-B1W	_	4.8		Spring washer 1 pc.	2,000
	JFS-2.6S-B1WM	-	SFS-2.6S-B1WM	HFS-2.6S-B1WM	4.8	В		
	JFS-2.6S-C1WM	_	SFS-2.6S-C1WM	_	5.5	В	_	

RoHS2 compliance

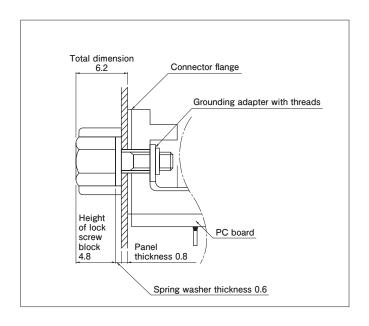




Model No.	Attachment	Q'ty/box
JFS-2.6R-N	Spring washer 1 pc. Set screw 1 pc.	1,000

RoHS2 compliance

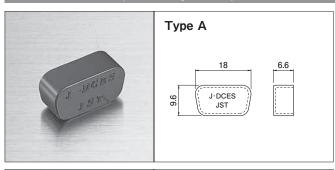
## D SUBMINIATURE CONNECTOR J·JH·JK&KH SERIES



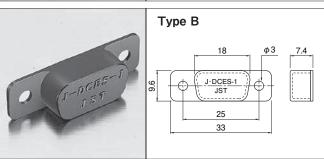
#### Application examples of hexagonal lock screw blocks

- The resulting total dimension from the connector flange to the top of the hexagonal lock screw block must be 6.2 mm after assembly.
- The D subminiature connector can be installed on the Panel by simply tightening the hexagonal lock screw block together with grounding adapter, which has an identical thread to that of the F, G, and H types.

## DUST COVER (for receptacles)



		Тур	ا مر	Circ	uits	Model No.	Q'ty/box	
		1 31	<i>J</i> C	J series	JK series	woder No.	Q ty/DOX	
		Α		9	15	J-DCES	1,000	
	6.6	В		9	15	J-DCES-1	1,000	
ES )	[i				Mate	erial		
			PA, UL94V-0, black					



RoHS2 compliance

## **EXTRACTION TOOL**



With this tool, contacts (connected to wires by crimping) can be easily removed if they are improperly inserted into plug and receptacle housings.

Applic	Model No.	
J series	DEJ-0.3	
JK series	Plug	KEJ-0.7
JK series	Receptacle	KEJ-0.4