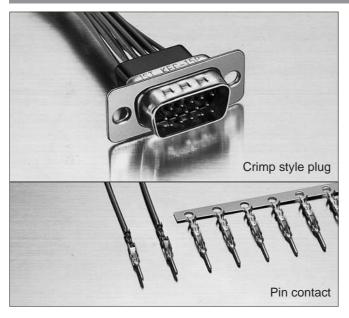


# DSUBMINIATURE JK SERIES Crimp style plug and socket

#### CRIMP STYLE PLUG AND SOCKET







#### Features -

- The dimples in the shell provide the ground connection and are an The contact has a retention lance that makes assembly to the important factor in preventing electromagnetic interference.
  - 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.
- \* Compliant with RoHS.

#### Specifications -

#### **Materials**

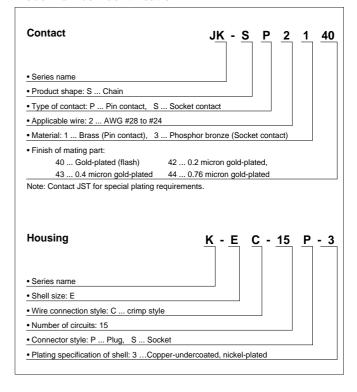
Connector	Part name	Material and Finish	
		Brass, nickel-undercoated,	
	Contact	Mating part; gold-plated	
Plug		Crimping part; tin-plated (reflow treatment)	
	Insulator	Glass-filled PBT, UL94V-0, black	
	Shell	Steel, copper-undercoated, nickel-plated	
		Phosphor bronze,	
	Contact	Nickel-undercoated,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

#### Characteristics

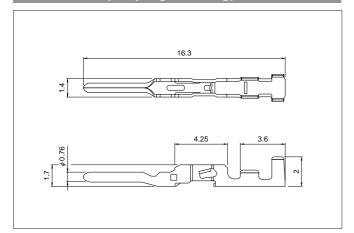
Current rating	1.0 A AC, DC (AWG #24)
Voltage rating	250 V AC, DC
Temperature range	-40°C to +85°C (including temperature rise in applying electrical current)
Contact resistance	Initial value/ 15 m $\Omega$ max. After environmental tests/ 30 m $\Omega$ max.
Insulation resistance	5,000 MΩ min.
Withstanding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

Note: Contact JST for details.

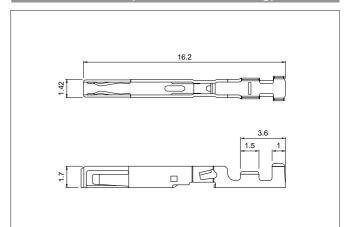
#### Model number identification



#### Pin contact (for plug housing)



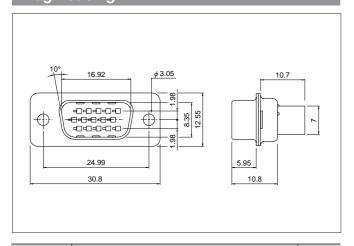
#### Socket contact (for socket housing)



Mode	el No.		Applica	Q'ty/box	
Pin contact	Socket contact	Finish at mating part	AWG #	Insulation O.D. (mm)	Q ty/box
JK-SP2140	JK-SS2340	Gold-plated (flash)	28~24	0.9~1.4	40.000
JK-SP2144	JK-SS2344	Gold-plated (0.76 micron)	201-24	0.5' - 1.4	10,000

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

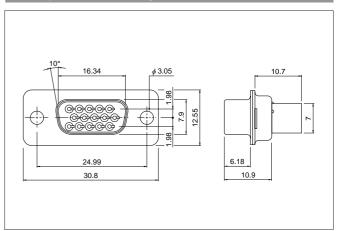
#### Plug housing



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

RoHS compliance

#### Receptacle housing



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

RoHS compliance

#### Crimping machine, Applicator

ı	Contact	Crimping	Applicator			
	Contact	machine	Crimp applicator	Dies	Crimp applicator with dies	
	J-SP2***	AP-K2N	MKS-L	MK/JK-SP/SS2	APLMK JK-SP/SS2	
	J-3P2****		*MKS-SC-JK	SC/JK-SP/SS2	APLSC JK-SP/SS2	
	J-SS2***	MF-NZIN	MKS-L	MK/JK-SP/SS2	APLMK JK-SP/SS2	
	J-332		*MKS-SC-JK	SC/JK-SP/SS2	APLSC JK-SP/SS2	

Note: \*Strip-crimp applicator



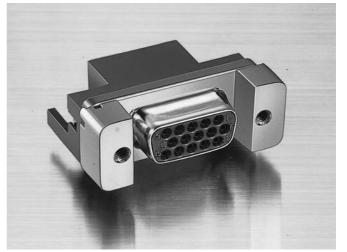
# DSUBMINIATURE JK SERIES Right angle through-hole plug and socket

#### RIGHT ANGLE THROUGH-HOLE SOCKET

**FL** 



(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 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.
- \* Compliant with RoHS.

#### Specifications -

#### **Materials**

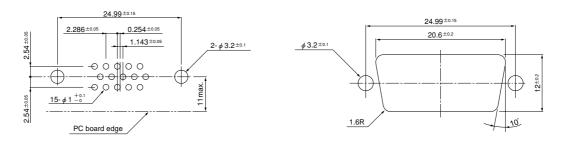
Part name	Material and Finish
	Phosphor bronze, nickel-undercoated,
Contact	Mating part; gold-plated
	Solder tail; tin-plated (reflow treatment)
Insulator	Glass-filled PBT, UL94V-0, black
Shell	Steel, copper-undercoated, nickel-plated
Grounding adapter having a 3.2 mm dia. hole	Steel, copper-undercoated,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

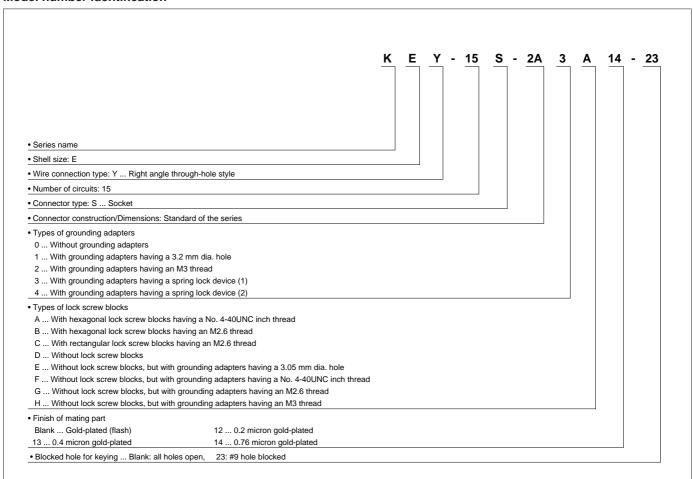
#### PC board layout (viewed from component side)



Note: 1. Tolerances are non-cumulative: ±0.05 mm for all centers.

2. 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 a	ingle through-hole	socket			Type A	Type B
	16.34	1.98 7.9 12.6	22.22 6.18		With hexagonal lock screw blocks (H: 6.3 mm) having a	With hexagonal lock screw blocks (H: 6.3 mm) having an M2.6
No.9 hole	24.99	32	2.54 8.89 11.43	0.6 2.54	No.4-40UNC inch thread	thread
H: Height of the	e lock screw block (for Types A, B &	Model No.				
Circuits	Gold-plated (flash) socket		'6 micron) socket nole blocked	Q'ty/ box		
Note: 1 . Plea 2 . ** sh For e No. 4	KEY-15S-2A**  ilance This product displays (Lise note that there is a discontinows the location where a two-cexample, if a 15-circuit gold-plata-4-0UNC inch thread and without EY-15S-2A0A. (☆) Type C	ued product depending of ligit code (see the table be ed (flash) socket with he ut grounding adapters is	on the combination of pelow for codes) shoul xagonal lock screw blo	d be entered. ocks having a	No.4-40UNC	M2.6
Without g	rounding adapters				0A	0B
_	nding adapters mm dia. hole		5			1B
With grou	nding adapters 3 thread				2A	2B
_	nding adapters ing lock lever (1)				ЗА	3B
_	nding adapters ing lock device (2)				_	

Type C	Type D	Type E	Type F	Type G	Type H	
With rectangular lock screw blocks (H: 6.2 mm)	Without lock screw blocks		k screw blocks  ng adapter has no thread.  rounding adapters have a thread (*1) for securing separately-purchased lock screw blocks (*2)			
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	

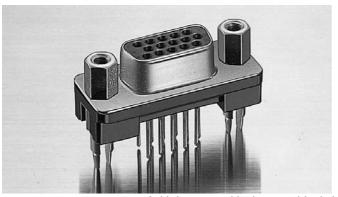


## DSUBMINIATURE JK SERIES

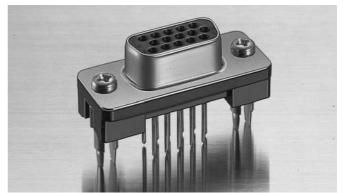
Straight through-hole socket

#### STRAIGHT THROUGH-HOLE SOCKET

**FL** 



(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.

 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.

#### Specifications -

#### **Materials**

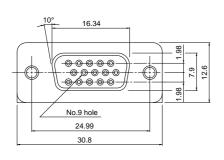
Part name	Material and Finish		
	Phosphor bronze,		
Contact	nickel-undercoated,		
Contact	Mating part; gold-plated		
	Solder tail; tin-plated (reflow treatment)		
Insulator Glass-filled PBT, UL94V-0, black			
Shell	Steel, copper-undercoated, nickel-plated		
Grounding adapter	Brass, nickel-undercoated,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

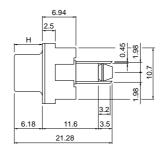
#### Characteristics

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

Circuits	Model No.				
	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		

RoHS 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.

No.4-40UNC

With grounding adapters with a spring lock device



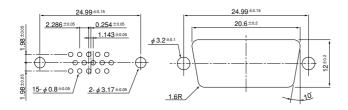
3A

#### 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.
- \* Compliant with RoHS.

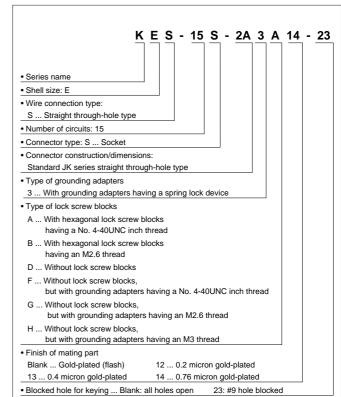
#### PC board layout (viewed from component side) and Panel layout



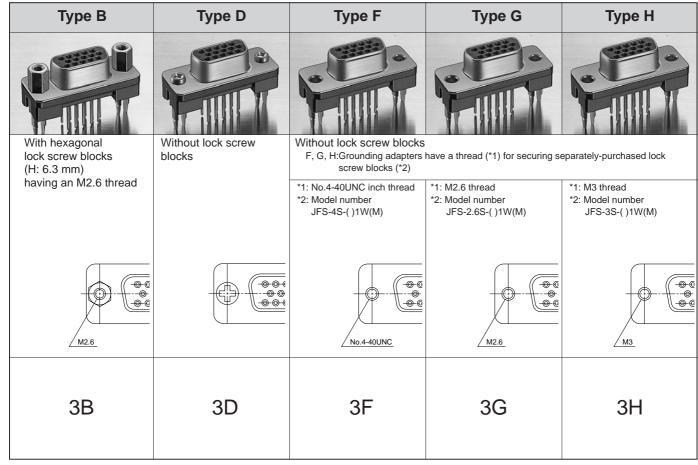
Note: 1. Tolerances are non-cumulative: ±0.05 mm for all centers.

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.





# DSUBMINIATURE J&JK SERIES Accessories/EMI prevention shielding cover ( J cover)

J COVER

W.



#### 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.
- \* Compliant with RoHS.

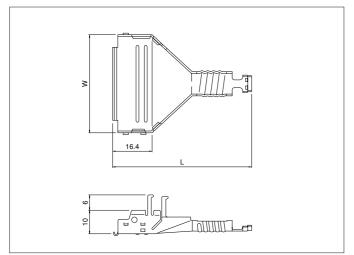
#### Standards -

Recognized E60389

#### Applicable cable dimensions

Circuits	J series	9	15	25	37
	JK series	15	_	_	_
Cable outer diameter (mm)		7.0 ±02		8.0 ± 0.2	10.0 ±0.2

#### Shielding cover A



J series		JK series		Dimensions (mm)		Q'ty/	
Circuits	Model No.	Circuits Model No.		W	L	box	
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	

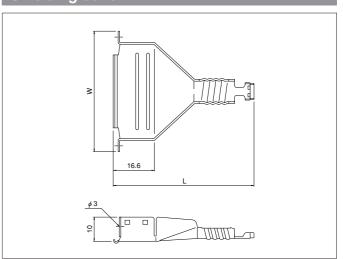
#### Material and Finish

Steel, copper-undercoated, nickel-plated

#### RoHS 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



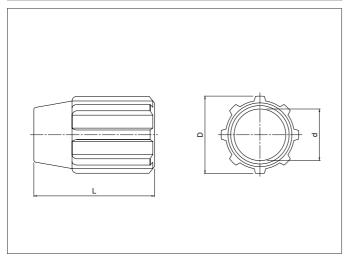
Circuits		Model No.	Dimension	O'tur/bay	
J series	JK series	Woder No.	W	L	Q´ty/box
9	15	J-SC9B	30.0	(42.0)	200
15	_	J-SC15B	38.0	(46.9)	150
25	_	J-SC25B	52.0	(57.0)	150
37		J-SC37B	68.0	(70.6)	100

Material and Finish Steel, copper-undercoated, nickel-plated

#### RoHS compliance

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

#### Cover nut

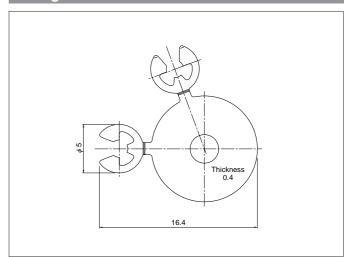


Circuits	Model No.	D	d	L	Q'ty/box
9	J-CN9 · 15	13.6	7.2	19.0	1,000
15	3-CN9 · 13	13.0			
25	J-CN25	16.4	8.4	25.0	1,000
37	J-CN37	18.8	10.4	28.0	1,500

Material

Glass-filled, PBT, UL94V-0, black

#### E-ring

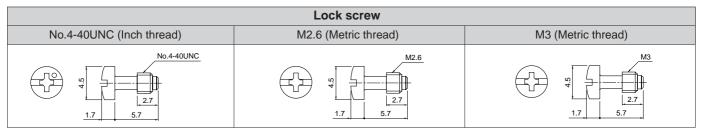


Model No.	Q'ty/box			
J-ER	5,000			
Material				
Stainless steel	•			

#### RoHS compliance

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

#### RoHS compliance



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

#### RoHS compliance

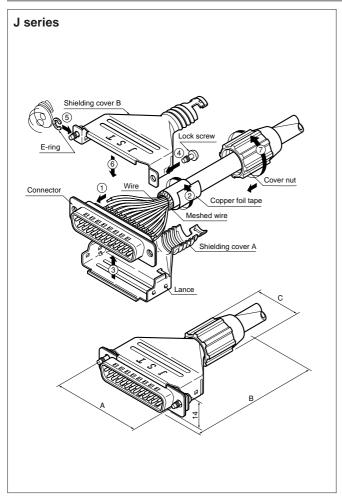
Use the following Model Nos. when ordering J-covers as a set.

God the following Model fives. When ordering a covers as a co.								
J series		JK series		Parts in one set				
Circuits	Model No.	Circuits	Model No.	Parts in 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	20			
37	J-C37-( )C	_	_	E-ring ······1 set	10			

RoHS 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).

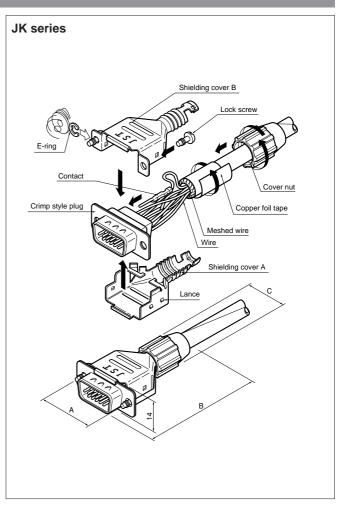
#### J-cover assembly procedure



#### 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**

Circ	cuits	Dimensions (mm)				
J series	J series JK series		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**

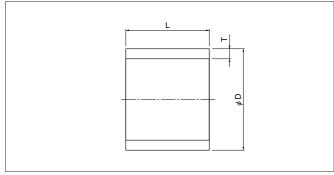
- This cover completely encloses all wire connections to the connector, and its braided wire crimp section ensures a reliable ground connection. The result is excellent shielding.
- This cover is sturdy enough to withstand the high pressure necessary during overmolding. It can thus be finish-molded directly.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

#### Applicable cable diameter

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

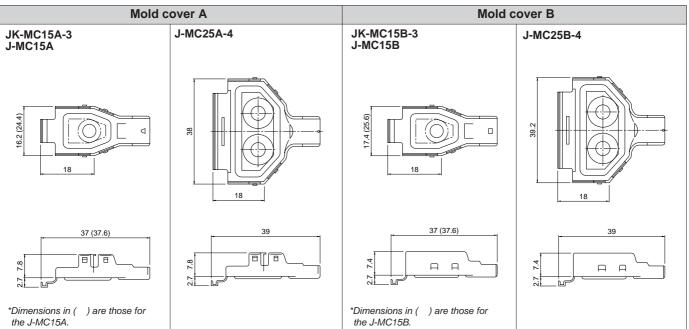
Note: Contact JST for cables other than those listed above.

#### Ferrule



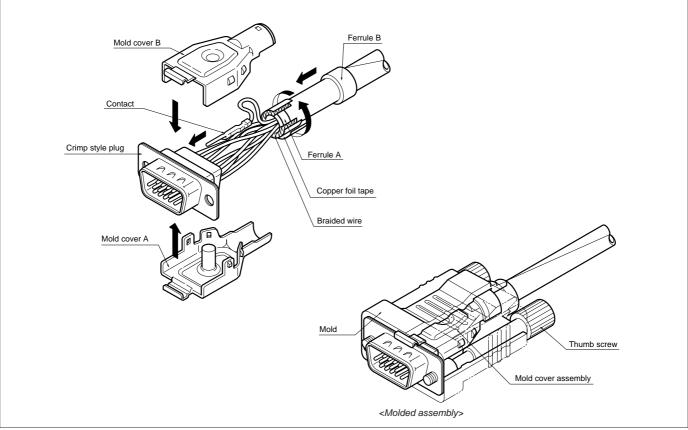
Circ	Formula	Dimensions (mm)			
J series	JK series	Ferrule	φD	Т	L
9 • 25	15	A	8.0	0.5	4.0
9 - 25		В	11.3	0.6	8.0
15	-	Α	7.0	0.5	4.0
13		В	10.5	0.6	8.0

RoHS compliance



RoHS 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		5 .		March Jerry	Q1: #
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	500
9	15	Mold cover B	JK-MC15B-3	Steel, copper-undercoated, nicker-plated	500
9	15	Ferrule A	JK-FL15A-8.0C	Connex tip plated	1,000
		Ferrule B	JK-FL15B-11.3	Copper, tin-plated	500
	_	Mold cover A	J-MC15A	Steel, copper-undercoated, nickel-plated	200
15		Mold cover B	J-MC15B	Steel, copper-undercoated, nicker-plated	200
		Ferrule B	J-FL15B-10.5	Copper, tin-plated	500
		Mold cover A	J-MC25A-4	Otania anno anno de anno de distribuit al atra d	250
25	_	Mold cover B	J-MC25B-4	Steel, copper-undercoated, nickel-plated	250
25		Ferrule A	JK-FL15A-8.0C	Connect time plated	1,000
		Ferrule B	JK-FL15B-11.3	Copper, tin-plated	500

#### RoHS compliance

#### Crimping machine, Applicator

Contact	Crimping	Applicator			
Contact	machine	Crimp applicator	Dies	Crimp applicator with dies	
JK-FL15B-11.3	AP-K2N	MKS-L-RG	MK/JK-MC15	APLMK JK-MC15	
J-FL15B-10.5	AP-KZN	MKS-L-RG	MK/J-MC15	APLSC JK-MC15	



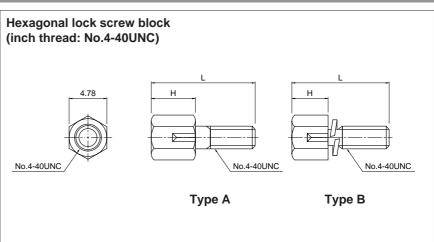
## DSUBMINIATURE J.JH.JK & KH SERIES

### Accessories/Lock screw block

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

#### LOCK SCREW BLOCK

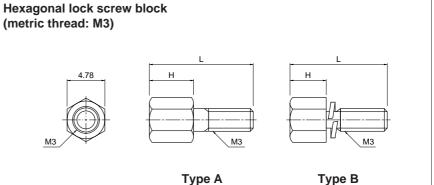




Applicable series  Dimension / Model No.	J series right angle through- hole type JK series straight through- hole type	JK series right angle through- hole type	J series straight through- hole type	JH series right angle through- hole type KH series right angle through- hole type	Dimension H (mm)	Туре	Attachment	Q'ty/ box		
Dimension L (mm)	13.1	15.0	10.0	11.8						
	JFS-4S-C1N	KFS-4S-C1N	_	_	5.5	Α -	A		Spring washer 1 pc. Nut 1 pc.	
	JFS-4S-B1W	KFS-4S-B1W	SFS-4S-B1W	HFS-4S-B1W	4.8			One in a superior of the super		
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	- в	Hexagonal lock screw &			
	JFS-4S-C1WM	KFS-4S-C1WM	SFS-4S-C1WM	HFS-4S-C1WM	5.5		spring washer are integrated			

RoHS compliance

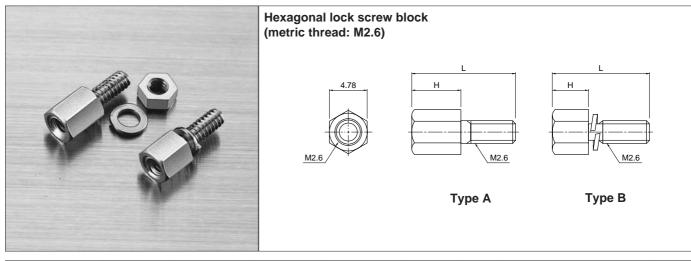




Applicable series  Dimension / Model No.	J series right angle through- hole type JK series straight through- hole type	JK series right angle through- hole type	J series straight through- hole type	JH series right angle through- hole type KH series right angle through- hole type	Dimension H (mm)	Туре	Type Attachment	Q'ty/ box	
Dimension L (mm)	13.1	15.0	10.0	11.8					
	JFS-3S-C1N	_	_	_	5.5		Spring washer 1 pc. Nut 1 pc.		
	JFS-3S-B1W	_	SFS-3S-B1W	_	4.8	Α	A		
Model No.	_	KFS-3S-C1W	SFS-3S-C1W	HFS-3S-C1W	5.5		Spring washer 1 pc.	2,000	
	_	_	SFS-3S-B1WM	HFS-3S-B1WM	4.8		Hexagonal lock screw &		
	JFS-3S-C1WM	KFS-3S-C1WM	SFS-3S-C1WM	HFS-3S-C1WM	5.5		spring washer are integrated		

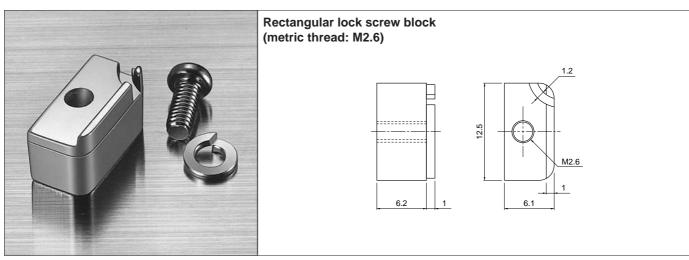
RoHS compliance

## **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 H (mm)	Туре	Attachment	Q´ty/ box	
Dimension L (mm)	13.1	15.0	10.0	11.8					
	JFS-2.6S-C1N	_	_	_	5.5	Spring washer 1 pc. Nut 1 pc.  A Spring washer 1 pc.			
	JFS-2.6S-B1W	KFS-2.6S-B1W	SFS-2.6S-B1W	HFS-2.6S-B1W	4.8		On the second second		
Model No.	_	KFS-2.6S-C1W	_	HFS-2.6S-C1W	5.5		Spring wasner 1 pc.	2,000	
	JFS-2.6S-B1WM	KFS-2.6S-B1WM	SFS-2.6S-B1WM	HFS-2.6S-B1WM	4.8	B Hexagonal Id	Hexagonal lock screw &		
	JFS-2.6S-C1WM	KFS-2.6S-C1WM	SFS-2.6S-C1WM	HFS-2.6S-C1WM	5.5	В	spring washer are integrated		

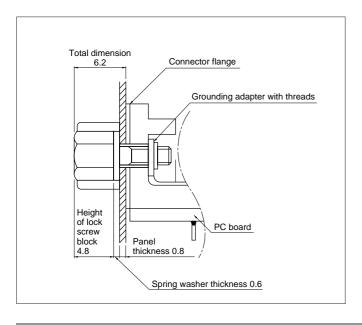
RoHS compliance



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

RoHS compliance

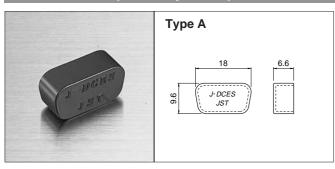
## **D SUBMINIATURE CONNECTOR J.JH.JK&KH SERIES**



#### Application examples of hexagonal lock screw blocks

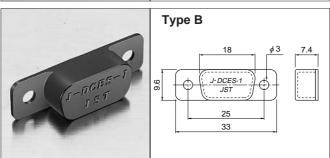
- The resulting total dimension from the connector flange to the top of the hexagonal lock screw block must be 6.2 mm after assembly.
- The D subminiature connector can be installed on the Panel by simply tightening the hexagonal lock screw block together with grounding adapter, which has an identical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

#### DUST COVER (for receptacles)



Type	Circuits		Model No.	Q'ty/box		
Type	J series	JK series	iviodei No.	Q ty/box		
Α	9	15	J-DCES	1,000		
В	9	15	J-DCES-1	1,000		
Material						
PA, UL94V-0, black						

RoHS 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.

Appli	Applicable Connector		
J series		DEJ-0.3	
JK series	Plug	KEJ-0.7	
JK Selles	Receptacle	KEJ-0.4	