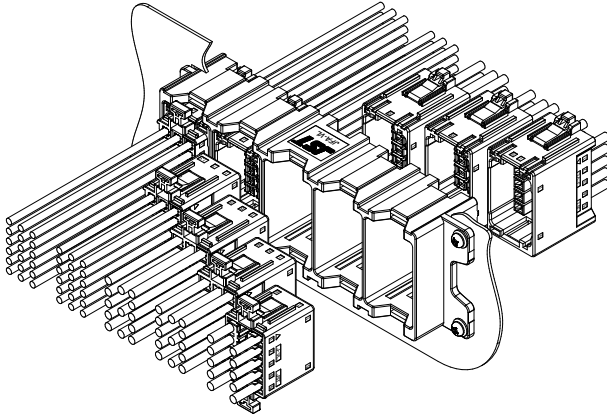


JFA-VL CONNECTOR

5.6/6.5/6.7 mm pitch/Wire-to-Wire connectors/Crimp style and Mating style



JFA-VL is a highly integrated connector system for electrical circuitry. It is designed for signal and power supply applications for use in factory automation, heavy electric machinery, railway and general industrial equipment.

- Featuring a wide range of wire gauges (AWG #28 to AWG #12)
- Keying available to prevent incorrect mating
- Panel lock type is also available in the JFA-VL connector lineup. It can be attached to the panel by itself.
- Frame housing style for modular system (1 frame, max. 5 modules)
- Pincounts available
 - J300 Series: 90 pins (18 pins x 5 modules)
 - J4000 Series: 65 pins (13 pins x 5 modules)
 - VL Series: 50 pins (10 pins x 5 modules)

■ Specifications

• Current rating : AC/DC

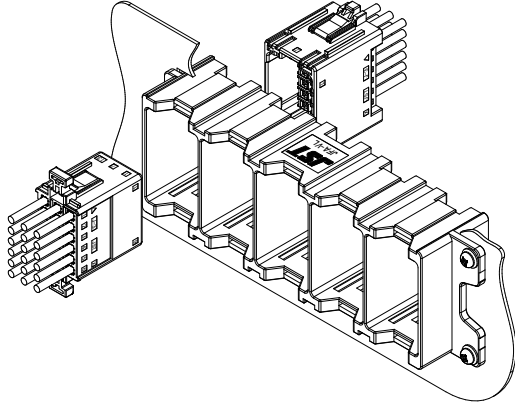
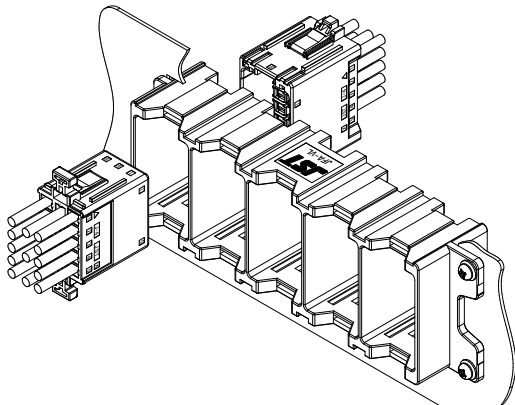
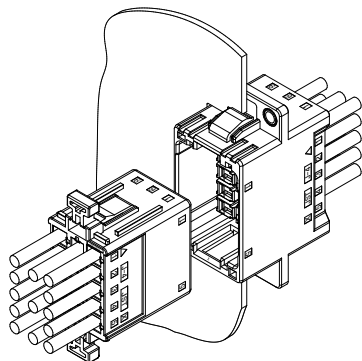
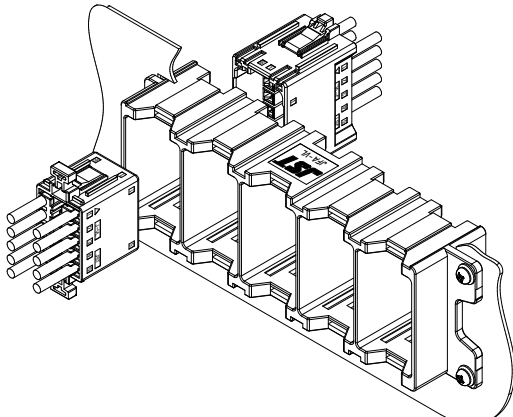
Current unit: A

	#12	#14	#16
J300 Series	-	10.0	8.0
J4000 Series	15.0	12.5	10.0
VL Series	15.0	12.0	9.0

- Voltage rating : 600 V AC/DC
- Temperature range :
 - 55°C to +105°C (J300/J4000 Series)
(Including temperature rise in applying electrical current)
 - 25°C to +90°C (VL Series)
(Including temperature rise in applying electrical current)
- Applicable wire range : Conductor size/
 - AWG # 28 to AWG # 14 (J300 Series)
 - AWG # 16 to AWG # 12 (J4000 Series)
 - AWG # 20 to AWG # 12 (VL Series)
- * Please note that the above general specifications may differ from safety standards.
- * Please refer to the "Handling Precautions for Terminals and Connectors" on our website (listed in the "Technical Documents" column on the Product Information page) before use.
- * RoHS2 compliance
- * Dimensional unit: mm
- * Contact JST for details.

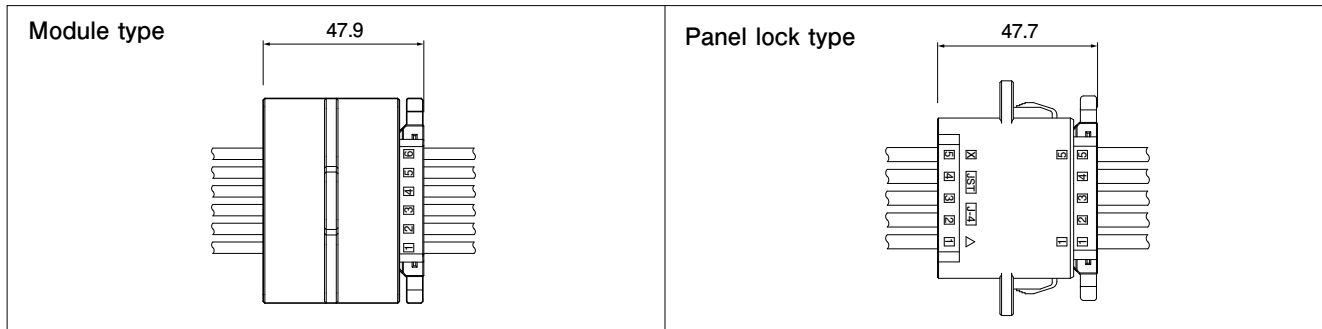
JFA-VL CONNECTOR

JFA-VL Line-up

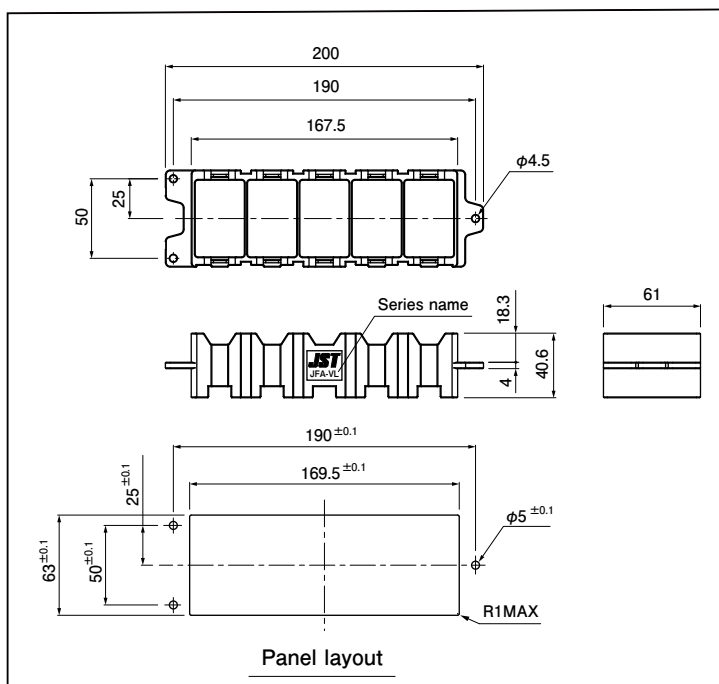
Type	Module type	Panel lock type
J300 Series		
	90 pins (18 pins x 5 modules)	
J4000 Series		
	65 pins (13 pins x 5 modules)	13 circuits
VL Series		
	50 pins (10 pins x 5 modules)	

JFA-VL CONNECTOR

Assembly layout



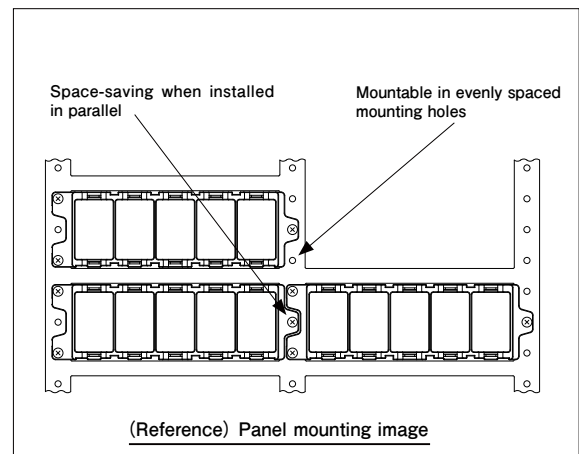
Frame housing



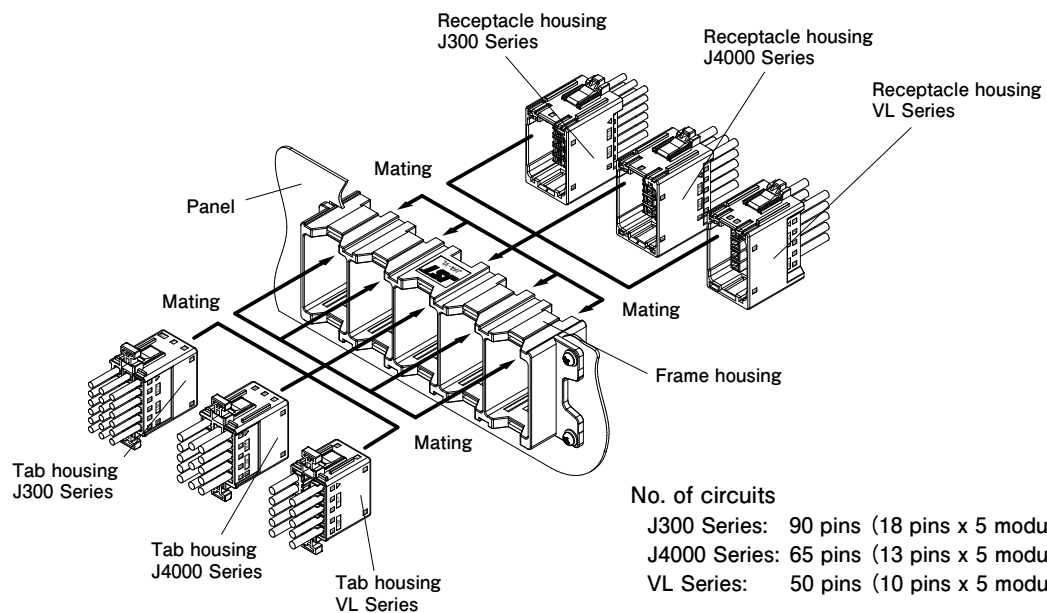
No. of modules	Keying	Model No.	Q'ty/box
5	-	FVFP-05V-K	3

Material and Surface finish, etc.

PBT (Glass-filled), UL94V-0, black



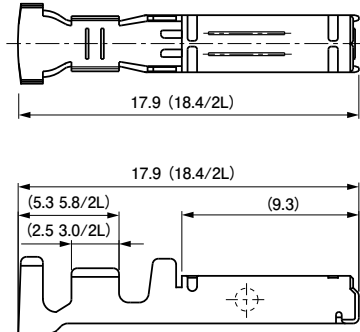
Mating combinations



JFA-VL CONNECTOR

Receptacle contact / Socket contact

• J300 Series



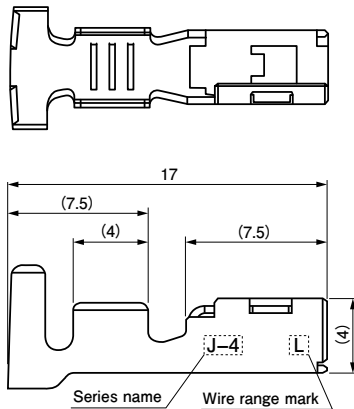
Strip contact Model No.	Loose piece contact Model No.	Applicable wire range			Q'ty	
		Size	Conductor size AWG mm ²	Insulation O.D. mm	reel	box (Loose price)
SF3F-002(*)-P2.0	BF3F-002(*)-P2.0	S	#28 to #24 0.08 to 0.20	0.8 to 1.4	3,700	1,000
SF3F-01(*)-P2.0	BF3F-01(*)-P2.0	M	#24 to #20 0.20 to 0.50	1.2 to 2.6	3,700	1,000
SF3F-41(*)-P2.0	LF3F-41(*)-P2.0	L	#20 to #16 0.50 to 1.25	1.8 to 2.8	3,200	1,000
SF3F-71(*)-P2.0	BF3F-71(*)-P2.0	2L	#16 to #14 1.25 to 2.0	2.4 to 3.4	3,200	1,000

Material and Surface finish, etc.

Copper alloy (superior conductivity), nickel-undercoated, selective gold-plated

Note) Surface finish (*): GFNickel-undercoated, 0.38 μm selective gold-plated
 GFANickel-undercoated, 0.38 μm selective gold-plated (Type A)
 GINickel-undercoated, 0.76 μm selective gold-plated
 GIANickel-undercoated, 0.76 μm selective gold-plated (Type A)

• J4000 Series

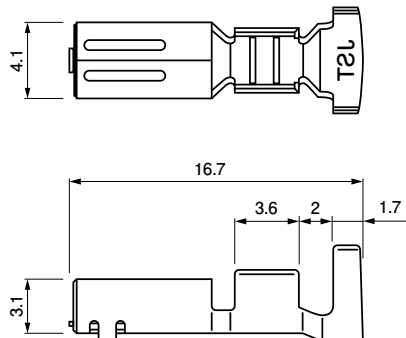


Strip contact Model No.	Loose piece contact Model No.	Applicable wire range			Q'ty	
		Size	Conductor size AWG mm ²	Insulation O.D. mm	reel	box (Loose price)
SJ4F-71GF-M3.0	BJ4F-71GF-M3.0	M	#16 to #14 1.25 to 2.0	2.0 to 3.8	1,400	350
SJ4F-81GF-M3.0	BJ4F-81GF-M3.0	L	#14 to #12 2.0 to 3.5	2.9 to 4.2	1,400	350

Material and Surface finish, etc.

Copper alloy (superior conductivity), nickel-undercoated, 0.38 μm selective gold-plated

• VL Series



Strip contact Model No.	Loose piece contact Model No.	Applicable wire range			Q'ty	
		Size	Conductor size AWG mm ²	Insulation O.D. mm	reel	box (Loose price)
SVF-61T-P2.0	BVF-61T-P2.0	#20 to #14	0.5 to 2.0	1.9 to 3.4	2,000	1,000
SVF-81T-P2.0	BVF-81T-P2.0	#12	3.5	4.1	2,000	1,000

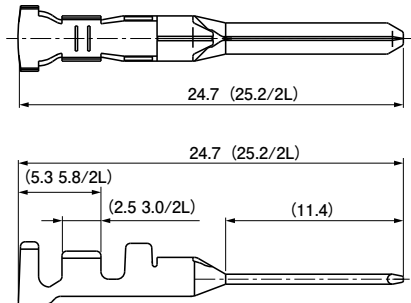
Material and Surface finish, etc.

Phosphor bronze, tin-plated

JFA-VL CONNECTOR

Tab contact / Pin contact

• J300 Series



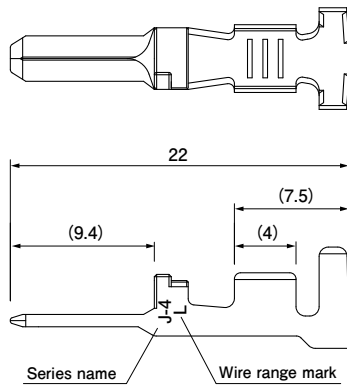
Strip contact Model No.	Loose piece contact Model No.	Size	Applicable wire range			Q'ty	
			Conductor size		Insulation O.D.	reel	box (Loose piece)
			AWG	mm ²	mm		
SF3M-002(*)-M2.0N	BF3M-002(*)-M2.0N	S	#28 to #24	0.08 to 0.20	0.8 to 1.4	3,500	1,000
SF3M-01(*)-M2.0N	BF3M-01(*)-M2.0N	M	#24 to #20	0.20 to 0.50	1.2 to 2.6	3,500	1,000
SF3M-41(*)-M2.0N	LF3M-41(*)-M2.0N	L	#20 to #16	0.50 to 1.25	1.8 to 2.8	3,300	1,000
SF3M-71(*)-M2.0N	BF3M-71(*)-M2.0N	2L	#16 to #14	1.25 to 2.0	2.4 to 3.4	3,200	1,000

Material and Surface finish, etc.

Copper alloy (superior conductivity), nickel-undercoated, selective gold-plated

Note) Surface finish (*): GF.....Nickel-undercoated, 0.38 μm selective gold-plated
GINickel-undercoated, 0.76 μm selective gold-plated

• J4000 Series

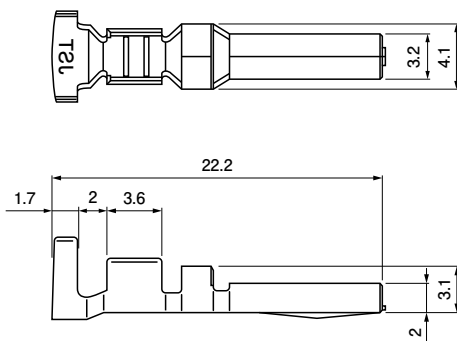


Strip contact Model No.	Size	Applicable wire range			Q'ty/reel
		Conductor size		Insulation O.D.	
		AWG	mm ²	mm	
SJ4M-71GF-M3.0	M	#16 to #14	1.25 to 2.0	2.0 to 3.8	1,800
SJ4M-81GF-M3.0	L	#14 to #12	2.0 to 3.5	2.9 to 4.2	1,800

Material and Surface finish, etc.

Copper alloy (superior conductivity), nickel-undercoated, 0.38 μm selective gold-plated

• VL Series



Strip contact Model No.	Loose piece contact Model No.	Applicable wire range			Q'ty	
		Conductor size		Insulation O.D. mm	reel	box (Loose piece)
		AWG	mm ²			
SVM-61T-P2.0	BVM-61T-P2.0	# 20 to # 14	0.5 to 2.0	1.9 to 3.4	2,000	1,000
SVM-81T-P2.0	BVM-81T-P2.0	# 12	3.5	4.1	2,000	1,000

Material and Surface finish, etc.

Phosphor bronze, tin-plated

Strip contact

Series	Strip contact Model No.	Crimping machine	Applicator	Crimp applicator with dies	Hand tools
J300	SF3F-002(*)-P2.0	AP-K2N	MKS-L	APLMK SF3F/M002-20	YRK-8821
	SF3M-002(*)-M2.0N				
	SF3F-01(*)-P2.0	AP-K2N	MKS-L	APLMK SF3F/M01-20	YRK-8811
	SF3M-01(*)-M2.0N				
	SF3F-41(*)-P2.0	AP-K2N	MKS-L	APLMK SF3F/M41-20	YRK-8801
	SF3M-41(*)-M2.0N				
J4000	SF3F-71(*)-P2.0	AP-K2N	MKS-L	APLMK SF3F/M71-20	YRK-1071
	SF3M-71(*)-M2.0N				
	SJ4F-71GF-M3.0	AP-K2N	MKS-L-SIN3	APLMK SJ4F/M71-30	YRK-1130
	SJ4M-71GF-M3.0				
VL	SJ4F-81GF-M3.0	AP-K2N	MKS-L-SIN3	APLMK SJ4F/M81-30	YRK-1370
	SJ4M-81GF-M3.0				
	SVF-61T-P2.0	AP-K2N	MKS-L	APLMK SVF/M61-20	-
	SVM-61T-P2.0				
VL	SVF-81T-P2.0	AP-K2N	MKS-L	APLMK SVF/M81-20	-
	SVM-81T-P2.0				

Note) Surface finish (*): GFNickel-undercoated, 0.38 μ m selective gold-plated
 GFANickel-undercoated, 0.38 μ m selective gold-plated (Type A)
 GINickel-undercoated, 0.76 μ m selective gold-plated
 GIANickel-undercoated, 0.76 μ m selective gold-plated (Type A)

Note 2) For details on the YRK series of hand tools for strip contacts, please refer to the "Crimping Machines and Tools" on our website (listed in the "Technical Documents" column).

- J300 Series Extraction tool : EJ-JFAJ3
- J4000 Series Extraction tool : EJ-JFAJ4
- VL Series Extraction tool : VLJ-20

Loose piece contact

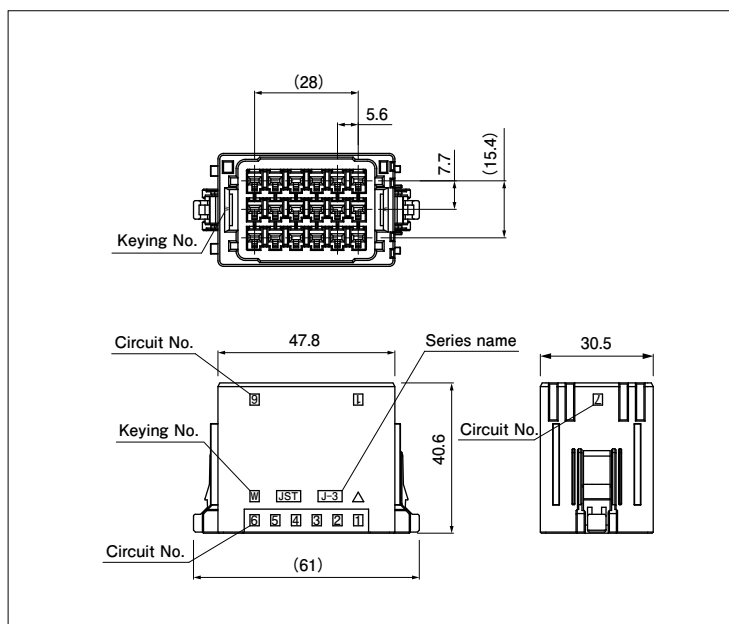
Series	Loose piece contact	Hand tools
J300	BF3F-002(*)-P2.0	YRF-882
	BF3M-002(*)-M2.0N	
	BF3F-01(*)-P2.0	YRF-881
	BF3M-01(*)-M2.0N	
	LF3F-41(*)-P2.0	YRF-880
	LF3M-41(*)-M2.0N	
J4000	BF3F-71(*)-P2.0	YRF-1070
	BF3M-71(*)-M2.0N	YRF-1071
	BJ4F-71GF-M3.0	YRF-1130
	BJ4F-81GF-M3.0	YRF-1370
VL	BVF-61T-P2.0	YRF-590
	BVM-61T-P2.0	
	BVF-81T-P2.0	YRF-591
	BVM-81T-P2.0	

Note) Surface finish (*): GFNickel-undercoated, 0.38 μ m selective gold-plated
 GFANickel-undercoated, 0.38 μ m selective gold-plated (Type A)
 GINickel-undercoated, 0.76 μ m selective gold-plated
 GIANickel-undercoated, 0.76 μ m selective gold-plated (Type A)

- J300 Series Extraction tool : EJ-JFAJ3
- J4000 Series Extraction tool : EJ-JFAJ4
- VL Series Extraction tool : VLJ-20

JFA-VL CONNECTOR / J300 Series

Receptacle housing

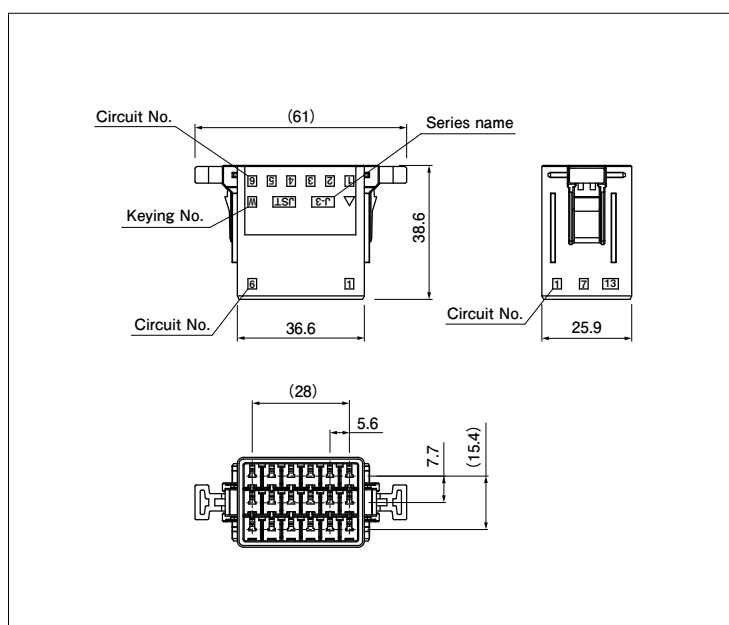


No. of circuits	Keying	Model No.	Q'ty / box
18	X	FV3FTS-18V-KX	6
	Y	FV3FTS-18V-SY	6
	Z	FV3FTS-18V-EZ	6
	W	FV3FTS-18V-MW	6

Material and Surface finish, etc.

PBT (Glass-filled), UL94V-0
 X-Keying (black), Y-Keying (white),
 Z-Keying (blue), W-Keying (green)

Tab housing



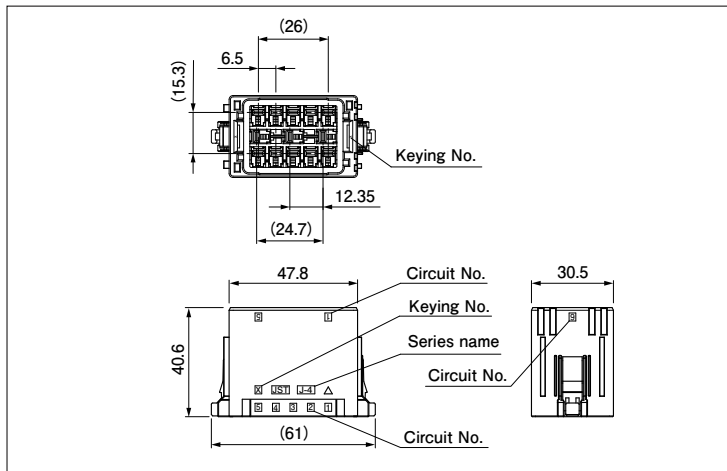
No. of circuits	Keying	Model No.	Q'ty / box
18	X	FV3MTS-18V-KX	6
	Y	FV3MTS-18V-SY	6
	Z	FV3MTS-18V-EZ	6
	W	FV3MTS-18V-MW	6

Material and Surface finish, etc.

PBT (Glass-filled), UL94V-0
 X-Keying (black), Y-Keying (white),
 Z-Keying (blue), W-Keying (green)

JFA-VL CONNECTOR / J4000 Series

Receptacle housing

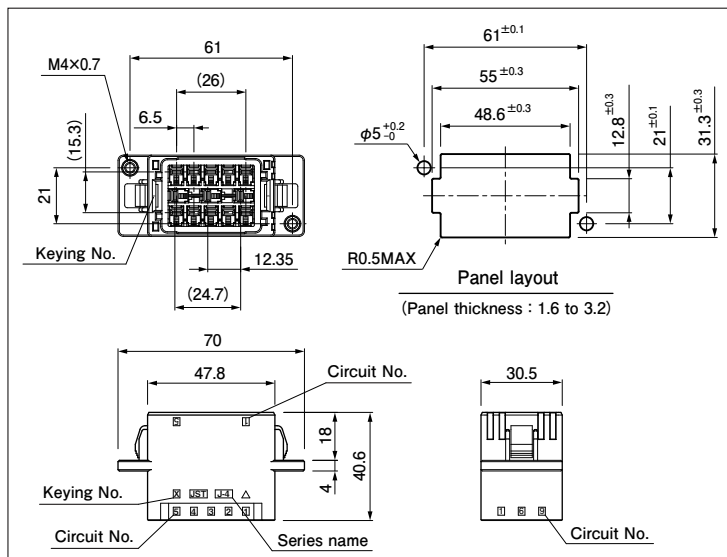


No. of circuits	Keying	Model No.	Q'ty / box
13	X	FV4FTS-13V-KX	6
	Y	FV4FTS-13V-SY	6
	Z	FV4FTS-13V-EZ	6
	W	FV4FTS-13V-MW	6
	V	FV4FTS-13V-RV	6

Material and Surface finish, etc.

PBT (Glass-filled), UL94V-0
 X-Keying (black), Y-Keying (white),
 Z-Keying (blue), W-Keying (green), V-Keying (red)

Receptacle housing Panel lock type

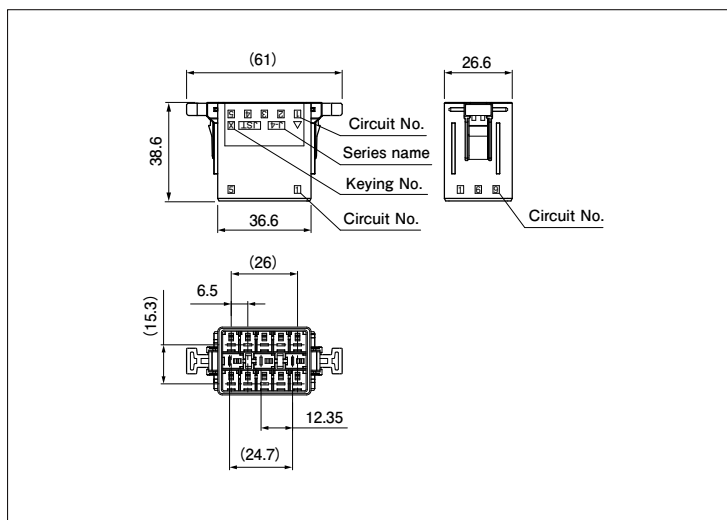


No. of circuits	Keying	Model No.	Q'ty / box
13	X	FV4FTPL-13V-KX-M4	6

Material and Surface finish, etc.

PBT (Glass-filled), UL94V-0, black,
 Nut: Copper alloy

Tab housing



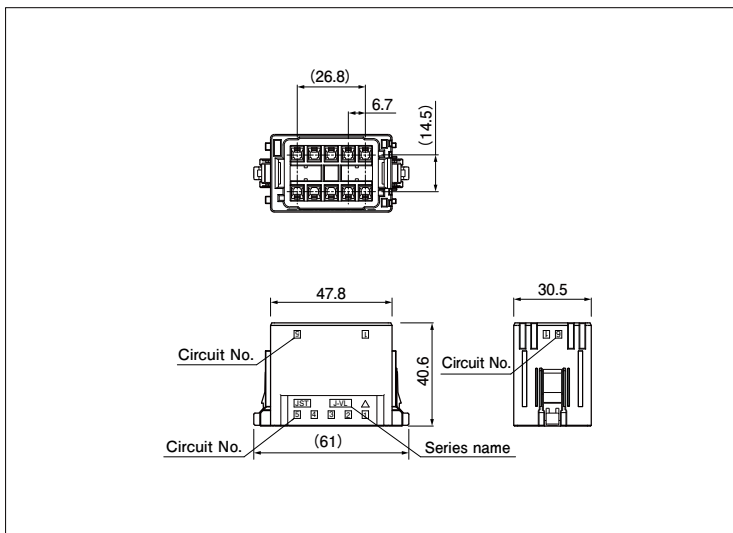
No. of circuits	Keying	Model No.	Q'ty / box
13	X	FV4MTS-13V-KX	6
	Y	FV4MTS-13V-SY	6
	Z	FV4MTS-13V-EZ	6
	W	FV4MTS-13V-MW	6
	V	FV4MTS-13V-RV	6

Material and Surface finish, etc.

PBT (Glass-filled), UL94V-0
 X-Keying (black), Y-Keying (white),
 Z-Keying (blue), W-Keying (green), V-Keying (red)

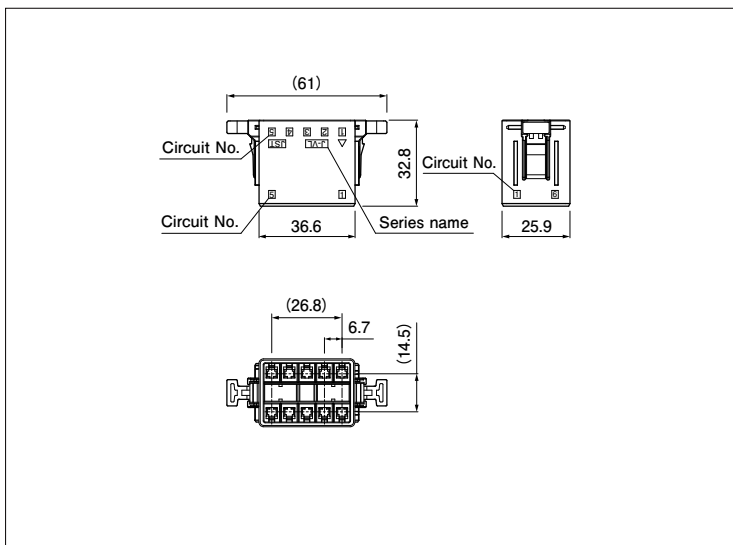
JFA-VL CONNECTOR / VL Series

Receptacle housing



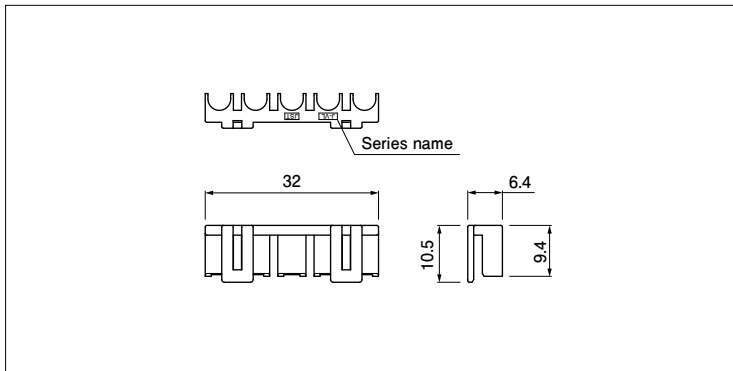
No. of circuits	Keying	Model No.	Q'ty / box
10	-	FVLFDS-10V-S	6
Material and Surface finish, etc.			
PBT (Glass-filled), UL94V-0, white			

Tab housing



No. of circuits	Keying	Model No.	Q'ty / box
10	-	FVLMDS-10V-S	6
Material and Surface finish, etc.			
PBT (Glass-filled), UL94V-0, white			

Retainer



No. of circuits	Keying	Model No.	Q'ty / box
5	-	FVLLS-05V-S	120
Material and Surface finish, etc.			
PBT (Glass-filled), UL94V-0, white			

Model number allocation

Receptacle contact (J300 Series)

S F3 F - 41 GF - P 2.0

Supply form : S...Strip from, B...Loose piece
L...Loose piece with curled burrels

Series name : J300 Series

Part name : Receptacle contact

Applicable wire range : 002...AWG #28 to AWG #24,
01...AWG #24 to AWG #20, 41...AWG #20 to AWG #16,
71...AWG #16 to AWG #14

Surface finish :
GF ...Nickel-undercoated, 0.38 μ m selective gold-plated
GFA...Nickel-undercoated, 0.38 μ m selective gold-plated (Type A)
GI ...Nickel-undercoated, 0.76 μ m selective gold-plated
GIA ...Nickel-undercoated, 0.76 μ m selective gold-plated (Type A)

Material : Copper alloy

Applicable contact size

Tab contact (J300 Series)

S F3 M - 41 GF - M 2.0 N

Supply form : S...Strip from, B...Loose piece
L...Loose piece with curled burrels

Series name : J300 Series

Part name : Tab contact

Applicable wire range : 002...AWG #28 to AWG #24
01...AWG #24 to AWG #20, 41...AWG #20 to AWG #16
71...AWG #16 to AWG #14

Surface finish : GF...Nickel-undercoated, 0.38 μ m selective gold-plated
GI ...Nickel-undercoated, 0.76 μ m selective gold-plated

Material : Copper alloy

Contact size

Auxiliary symbol

Receptacle contact (J4000 Series)

S J4 F - 71 GF - M 3.0

Supply form : S...Strip from, B...Loose piece

Series name : J4000 Series

Part name : Receptacle contact

Applicable wire range : 71...AWG #16 to AWG #14
81...AWG #14 to AWG #12

Surface finish : Nickel-undercoated, 0.38 μ m selective gold-plated

Material : Copper alloy

Applicable contact size

Tab contact (J4000 Series)

S J4 M - 71 GF - M 3.0

Supply form : Strip from

Series name : J4000 Series

Part name : Tab contact

Applicable wire range : 71...AWG #16 to AWG #14
81...AWG #14 to AWG #12

Surface finish : Nickel-undercoated, 0.38 μ m selective gold-plated

Material : Copper alloy

Contact size

Socket contact (VL Series)

S V F - 61 T - P 2.0

Supply form : S...Strip from, B...Loose piece

Series name : VL Series

Part name : Socket contact

Applicable wire range : 61...AWG #20 to AWG #14
81...AWG #12

Surface finish : Tin-plated

Material : Phosphor bronze

Applicable contact size

Pin contact (VL Series)

S V M - 61 T - P 2.0

Supply form : S...Strip from, B...Loose piece

Series name : VL Series

Part name : Pin contact

Applicable wire range : 61...AWG #20 to AWG #14
81...AWG #12

Surface finish : Tin-plated

Material : Phosphor bronze

Ccontact size

Frame housing

FV F PA - 05 V - K

Connector name

Part name : Frame housing

Mounting arrangement : Panel mounting type

No. of modules

Flammability : UL94V-0

Color : Black

JFA-VL CONNECTOR

Model number allocation

Receptacle housing (J300 Series)

	FD	FD 3	FD T	FD S	FD V	FD X
Connector name						
Series name : J300 Series						
Part name : Receptacle housing						
Rows : 3-row						
Mounting arrangement : Side locking						
No. of circuits						
Flammability : UL94V-0						
Color/Keying : KX...Black/X-Keying SY...Natural (White) /Y-Keying EZ...Blue/Z-Keying, MW...Green/W-Keying						

Tab housing (J300 Series)

	FV	M	T	S-	V-	KX
Connector name						
Series name : J300 Series						
Part name : Tab housing						
Rows : 3-row						
Mounting arrangement : Side locking						
No. of circuits						
Flammability : UL94V-0						
Color/Keying : KX...Black/X-Keying SY...Natural (White)/Y-Keying EZ...Blue/Z-Keying, MW...Green/W-Keying						

Receptacle housing (J4000 Series)

	FV	4 F T	PL - 13 V	-KX-	M4
Connector name					
Series name : J4000 Series					
Part name : Receptacle housing					
Rows : 3-row					
Mounting arrangement : PL...Panel lock, S...Side locking					
No. of circuits					
Flammability : UL94V-0					
Color/Keying : KX...Black/X-Keying SY...Natural (White)/Y-Keying, EZ...Blue/Z-Keying MW...Green/W-Keying, RV...Red/V-Keying					
Screw size : M4...Panel lock type (M4 screw) Blank...Module type					

Tab housing (J4000 Series)

	FV 4	M	T	S	- 13	V	- K	X
Connector name								
Series name : J4000 Series								
Part name : Tab housing								
Rows : 3-row								
Mounting arrangement : Side locking								
No. of circuits								
Flammability : UL94V-0								
Color/Keying : KX...Black/X-Keying, SY...Natural (White)/Y-Keying EZ...Blue/Z-Keying, MW...Green/W-Keying RV...Red/V-Keying								

Receptacle housing (VL Series)

[illegible]

Tab housing (VL Series)

	FV	L	M	D	S	-10	V	S
Connector name								
Series name : VL Series								
Part name : Tab housing								
Rows : 2-row								
Mounting arrangement : Side locking								
No. of circuits								
Flammability : UL94V-0								
Color : Natural (White)								

Retainer (VL Series)

	FV	L	L	S	-	05	V	-	S
Connector name									
Series name : VL Series									
Part name : Retainer									
Rows : 1-row									
No. of circuits									
Flammability : UL94V-0									
Color : Natural (White)									