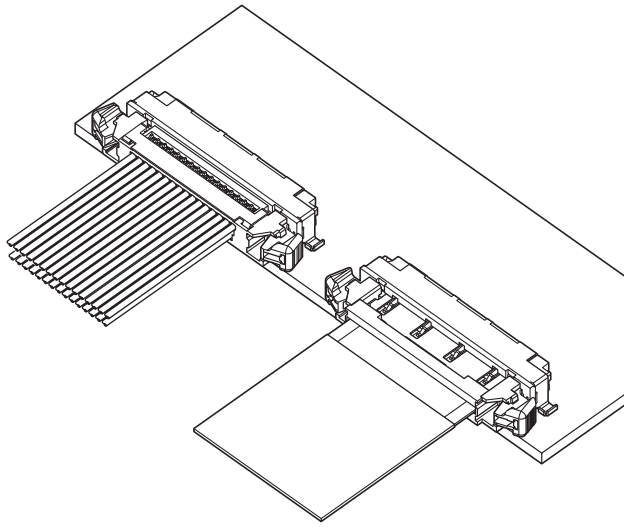


FWG CONNECTOR

0.5mm pitch/Disconnectable Crimp style connectors/Connector for FPC and FFC



This is crimp style disconnectable connector with 0.5 mm pitch lock for high-speed transmission which can be chosen discrete wires, FPC or FFC depending on usage.

By assuming the use of multiple pieces of connector in the vicinity, prevention of mis-mating is provided by 4 kinds of key pattern in each circuit and 4 different colors of housing.

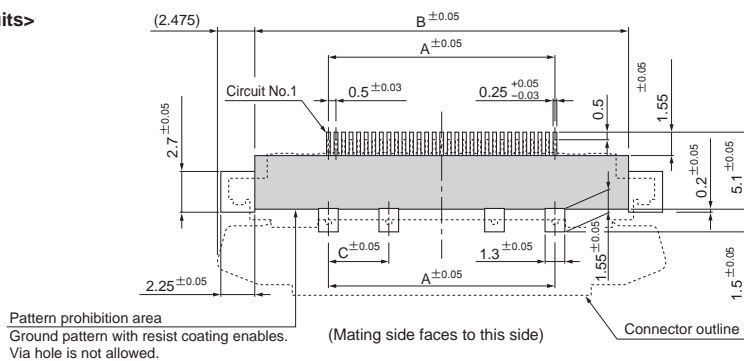
- 4 kinds of key pattern in 4 different colors for preventing mis-mating
- The structure that is strong enough to routing of Wire/FPC/FFC
- Low insertion force
- Space saving design
- Secure lock mechanism
- High-speed transmission

Specifications

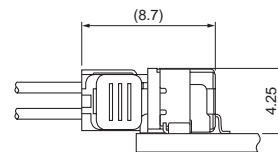
- Current rating: 0.3 A AC, DC
 - Voltage rating: 50 V AC, DC
 - Temperature range: -25°C to +85°C
(including temperature rise in applying electrical current)
 - Contact resistance: Initial value/ 80 mΩ max.
After environmental tests/ 160 mΩ max.
 - Insulation resistance: 500 MΩ min.
 - Withstanding voltage: 200 VAC/minute
 - Applicable wire: Conductor size/ AWG #30
Insulation O.D./ 0.47 to 0.71 mm
 - Applicable FPC/FFC: Conductor pitch/ 0.5 mm
Conductor width/ 0.32 mm
Mating part thickness/ 0.3 ± 0.03 mm
- * In using the products, refer to "Handling Precaution for Terminal and Connector" described on our website (Technical documents of Product information page).
- * Contact JST for details.
- * RoHS2 compliance

PC board layout and Assembly layout

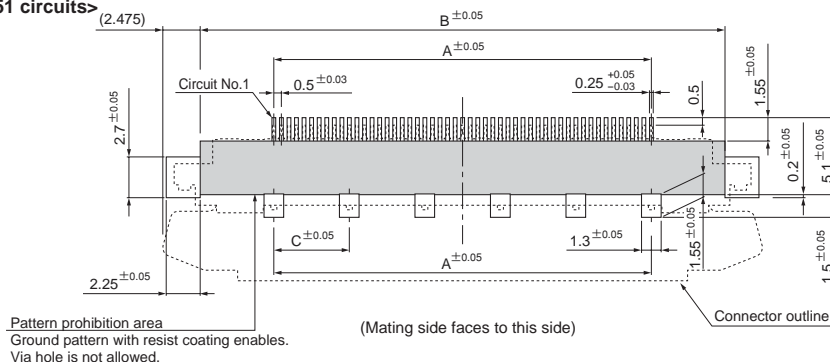
<31 circuits>



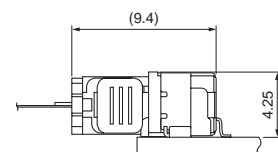
Discrete wire Socket type



<41, 51 circuits>



FPC/FFC Holder type

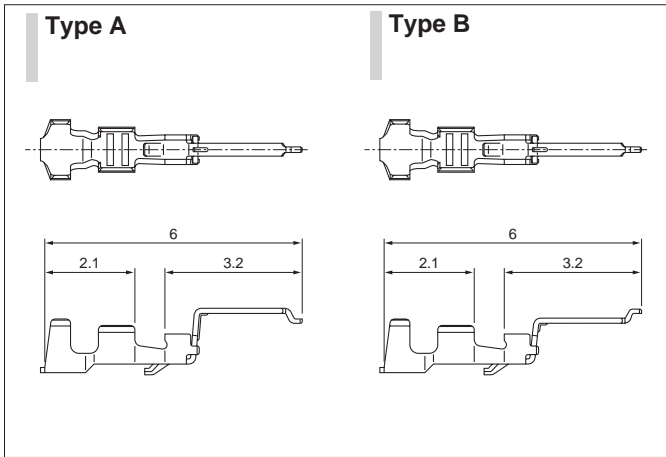


No. of circuits	Dimensions (mm)		
	A	B	C
31	15.0	24.75	4.0
41	20.0	29.75	4.0
51	25.0	34.75	5.0

Note: 1. The above figure is the figure viewed from the connector mounting side
2. Tolerance for the centers of pattern on PCB is ±0.03, and shall be not cumulative more than ±0.05.
The dimensions above should serve as a guideline. Contact JST for details.

FWG CONNECTOR

Contact



Model No.	Type	Applicable wire		Insulation O.D. (mm)	Q'ty/ reel
		mm ²	AWG #		
SFWG-003GB-P0.5-A	A	0.05~0.06	30	0.47~0.71	30,000
SFWG-003GB-P0.5-B	B				

Material and Finish

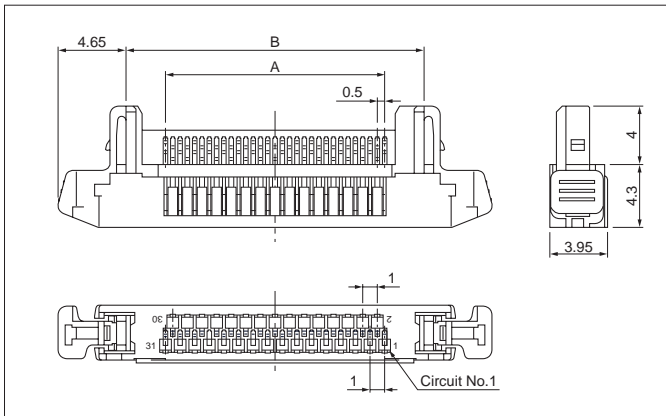
Copper alloy, nickel-undercoated, selective gold-plated

RoHS2 compliance

Contact	Crimping machine	Applicator		
		Crimp applicator	Dies	Crimp applicator with dies
SFWG-003GB-P0.5-A	AP-K2N	MKS-L-10-3	MK/SFWG-003-05	APLMK SFWG003-05
		—	—	—
SFWG-003GB-P0.5-B	—	MKS-L-10-3	MK/SFWG-003-05	APLMK SFWG003-05
		—	—	—

Note: Contact JST for fully automatic crimping applicator.

Holder housing



No. of circuits	Model No.	Dimensions (mm)		Q'ty/ box
		A	B	
31	31P-FWG-Z-1	15.0	20.4	2,400

Material and Finish

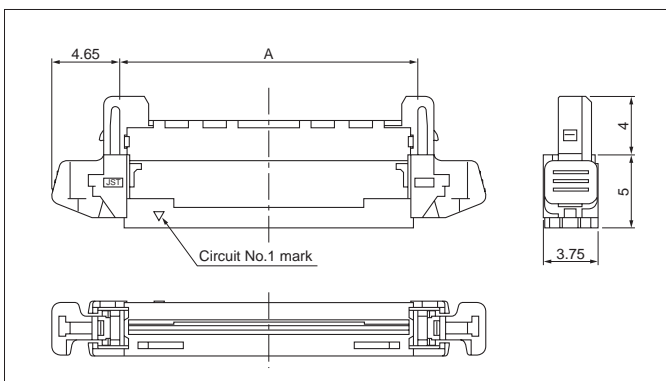
Housing: PA 46, ivory

Shell: Copper alloy, tin-plated (reflow treatment)

RoHS2 compliance

Note: Contact JST for the flammability.

Header housing



No. of circuits	Model No.	Dimensions (mm)	Q'ty/ box
		A	
41	FWGP-41-F-Z-1	25.4	200
51	FWGP-51-F-Z-1	30.4	200

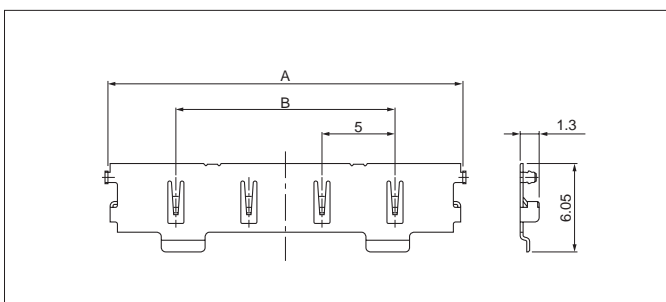
Material

PA 46, ivory

RoHS2 compliance

Note: Contact JST for the flammability.

Holder shell



No. of circuits	Model No.	Dimensions (mm)		Q'ty/ reel
		A	B	
41	41FWG-PS2-P	24.3	15.0	10,000
51	51FWG-PS2-P	29.3	25.0	10,000

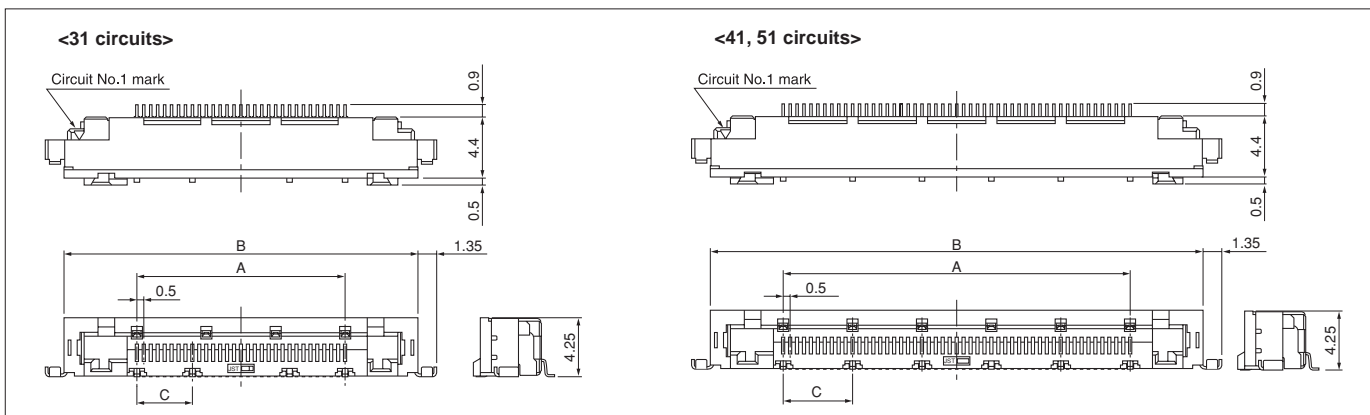
Material and Finish

Copper-alloy, tin-plated (reflow treatment)

RoHS2 compliance

FWG CONNECTOR

Header



No. of circuits	Model No.	Dimensions (mm)			Q'ty/ reel
		A	B	C	
31	31FWG-RSM1-GAN-Z-1-TB	15.0	25.5	4.0	1,400
41	41FWG-RSM1-GAN-Z-1-TB	20.0	30.5	4.0	1,400
51	51FWG-RSM1-GAN-Z-1-TB	25.0	35.5	5.0	1,400

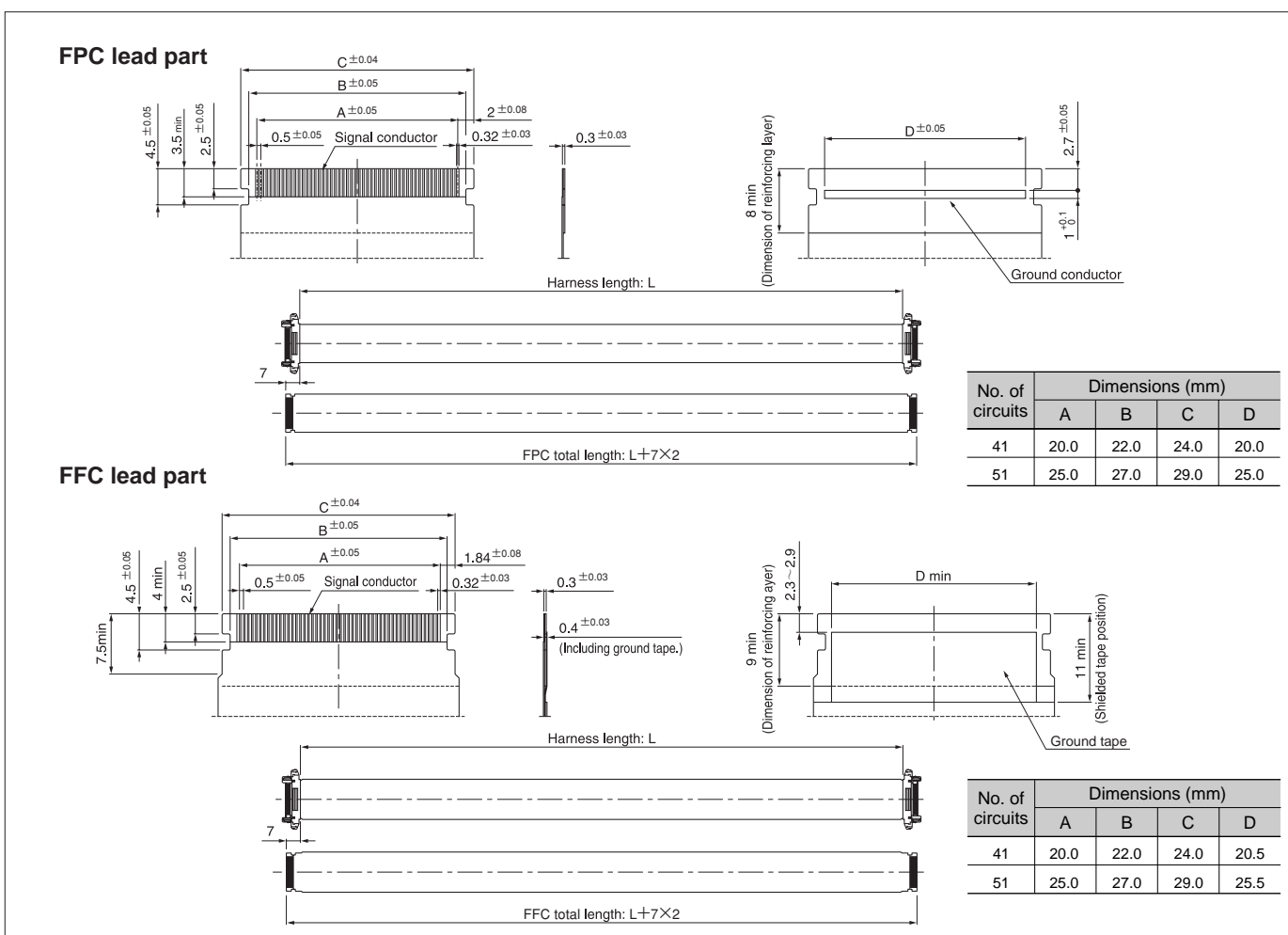
Material and Finish

Base housing: Heat resisting resin, UL94V-0, ivory
 Signal contact: Copper alloy, nickel-undercoated, selective gold-plated
 Ground contact: Copper alloy, tin-plated (reflow treatment)

RoHS2 compliance

Note: The product listed above is supplied on embossed-tape.

Lead section dimensions of FPC/FFC



No. of circuits	Dimensions (mm)			
	A	B	C	D
41	20.0	22.0	24.0	20.0
51	25.0	27.0	29.0	25.0

No. of circuits	Dimensions (mm)			
	A	B	C	D
41	20.0	22.0	24.0	20.5
51	25.0	27.0	29.0	25.5

Note: 1. The tolerance of FPC/FFC conductor pitch should be ± 0.05 mm and non-cumulative.
 2. The dimensions above should serve as a guideline. Contact JST for details.

FWG CONNECTOR

Model number identification

Contact

S FWG - 003 GB - P 0.5 - A

Form: S --- Strip form
Series name
Applicable wire: 003 --- AWG #30
Surface finish: Nickel-undercoated selective gold-plated
Material: P ---Copper alloy
Terminal size
Shape: A --- Type A, B --- Type B

Socket

31 P - FWG - Z - 1

No. of circuits: 31
Part name: Socket
Series name
Color · Key pattern No: Z-1--- Ivory · 1, E-2 --- Blue · 2,
L-3 --- Lemon yellow · 3, MG-4 --- Moss green · 4

Holder housing

FWG P - 41 - F - Z - 1

Series name
Part name: Housing
No. of circuits: 41, 51
Housing type: Holder
Color · Key pattern No: Z-1--- Ivory · 1, E-2 --- Blue · 2,
L-3 --- Lemon yellow · 3, MG-4 --- Moss green · 4

Holder shell

41 FWG - PS2 - P

No. of circuits: 41, 51
Series name
Part name: PS2 --- Holder shell
Surface finish: Tin-plated (reflow treatment)

Header

31 FWG - R S M1 - GAN - Z - 1 - TB

No. of circuits: 31, 41, 51
Series name
Mating method: R --- Reverse type (Connecting point at bottom side)
Assembly style: S --- Side entry type
Mounting method: M1 --- SMT type
Surface finish: Nickel-undercoated selective gold-plated
Color · Key pattern No.: Z-1--- Ivory · 1, E-2 --- Blue · 2, L-3 --- Lemon yellow · 3, MG-4 --- Moss green · 4
Packaging style: TB --- Embossed-taping