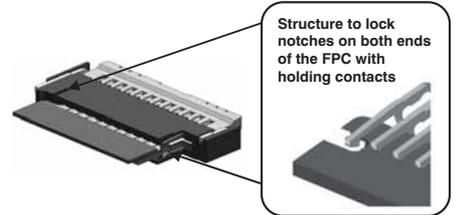
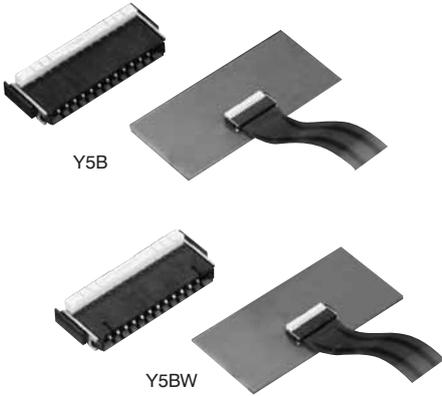


For FPC/FFC*	FPC connectors (0.5mm pitch) Back lock	Y5B/Y5BW Series
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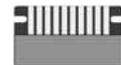
FEATURES

1. Low profile, space saving back lock type with improved lever operability
2. Mechanical design freedom achieved by top and bottom double contacts

3. Wide selection, including a type with a small number of pins
 Low profile and space saving design of 1.0 mm high and 3.20 mm deep (3.70 mm with lever)
 Y5B and Y5BW can have a minimum of four and two contacts respectively, maximum reduction in design packaging.



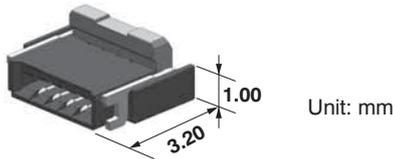
Applicable FPC shape



With notches

- (1) The inserted FPC can be temporarily held until the lever is closed.
- (2) When the lever is closed, the holding contacts lock the FPC by its through-holes and notches, enhancing the FPC holding force.

* (Y5BW is compatible with FPC only.)



4 pin contacts (Y5B: minimum)

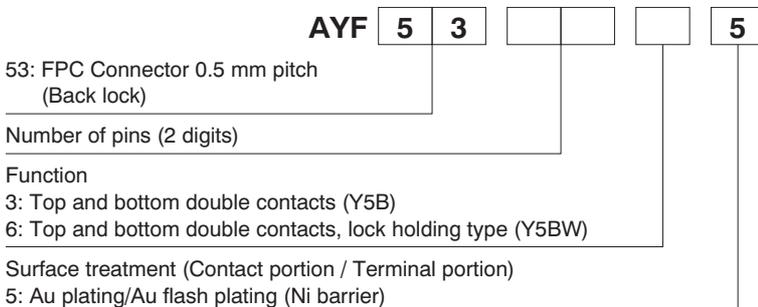
- Wiring patterns can be located underneath the connector.
- Man-hours for assembly can be reduced by delivering the connectors with their levers opened.
- Y5BW features advanced functionality, including a structure to temporarily hold the FPC and a higher holding force.

The FPC holding contacts located on both ends of the connector facilitate positioning of FPC and further enhance the FPC holding force.

APPLICATIONS

A wide range of digital equipment, including mobile phones, smartphones, PCs, digital still camera, and digital video camera. Ideal for touch panels and LCD backlights, which require connectors with a small number of pins.

ORDERING INFORMATION



PRODUCT TYPES

Height	Y5B		Y5BW		Packing	
	Number of pins	Part number	Number of pins	Part number	Inner carton (1-reel)	Outer carton
1.0 mm	4	AYF530435	2	AYF530265	5,000 pieces	10,000 pieces
	5	AYF530535	3	AYF530365		
	6	AYF530635	4	AYF530465		
	8	AYF530835	6	AYF530665		
	10	AYF531035	8	AYF530865		
	12	AYF531235	10	AYF531065		
	14	AYF531435	12	AYF531265		
	16	AYF531635	14	AYF531465		
	24	AYF532435	22	AYF532265		
	28	AYF532835	26	AYF532665		
	30	AYF533035	28	AYF532865		
	32	AYF533235	30	AYF533065		
	34	AYF533435	32	AYF533265		
	40	AYF534035	38	AYF533865		
	42	AYF534235	40	AYF534065		
50	AYF535035	48	AYF534865			

Notes: 1. Order unit;

For volume production: 1-inner carton (1-reel) units

Samples for mounting check: 50-connector units. Please contact our sales office.

2. Please contact our sales office for connectors having a number of pins other than those listed above.

SPECIFICATIONS

1. Characteristics

Item	Specifications	Conditions																			
Electrical characteristics	Rated current	0.5A/pin contact (Except for holding contact)																			
	Rated voltage	50V AC/DC																			
	Insulation resistance	Min. 1,000M Ω (initial)	Using 250V DC megger (applied for 1 min.)																		
	Breakdown voltage	250V AC for 1 min.	No short-circuiting or damage at a detection current of 1 mA when the specified voltage is applied for one minute.																		
	Contact resistance	Max. 100m Ω	Based on the contact resistance measurement method specified by JIS C 5402.																		
Mechanical characteristics	FPC holding force	Y5B: Min. 0.2N/pin contacts \times pin contacts (initial) Y5BW: Min. 0.2N/pin contacts \times pin contacts + 2.0N (initial)	Measurement of the maximum force applied until the inserted compatible FPC is pulled out in the insertion axis direction while the connector lever is closed																		
Environmental characteristics	Ambient temperature	-55°C to +85°C	No freezing at low temperatures. No dew condensation.																		
	Storage temperature	-55°C to +85°C (product only) -40°C to +50°C (emboss packing)																			
	Thermal shock resistance (with FPC inserted)	5 cycles, insulation resistance min. 100M Ω , contact resistance max. 100m Ω	Conformed to MIL-STD-202F, method 107G <table border="1"> <thead> <tr> <th>Order</th> <th>Temperature (°C)</th> <th>Time (minutes)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-55$\frac{3}{3}$</td> <td>30</td> </tr> <tr> <td>2</td> <td>}</td> <td>Max. 5</td> </tr> <tr> <td>3</td> <td>85$\frac{3}{3}$</td> <td>30</td> </tr> <tr> <td>4</td> <td>}</td> <td>Max. 5</td> </tr> <tr> <td></td> <td>-55$\frac{3}{3}$</td> <td></td> </tr> </tbody> </table>	Order	Temperature (°C)	Time (minutes)	1	-55 $\frac{3}{3}$	30	2	}	Max. 5	3	85 $\frac{3}{3}$	30	4	}	Max. 5		-55 $\frac{3}{3}$	
	Order	Temperature (°C)	Time (minutes)																		
	1	-55 $\frac{3}{3}$	30																		
	2	}	Max. 5																		
	3	85 $\frac{3}{3}$	30																		
4	}	Max. 5																			
	-55 $\frac{3}{3}$																				
Humidity resistance (with FPC inserted)	120 hours, insulation resistance min. 100M Ω , contact resistance max. 100m Ω	Bath temperature 40 \pm 2°C, humidity 90 to 95% R.H.																			
Saltwater spray resistance (with FPC inserted)	24 hours, insulation resistance min. 100M Ω , contact resistance max. 100m Ω	Bath temperature 35 \pm 2°C, saltwater concentration 5 \pm 1%																			
H ₂ S resistance (with FPC inserted)	48 hours, contact resistance max. 100m Ω	Bath temperature 40 \pm 2°C, gas concentration 3 \pm 1 ppm, humidity 75 to 80% R.H.																			
Soldering heat resistance	Peak temperature: 260°C or less 300°C within 5 sec. 350°C within 3 sec.	Reflow soldering Soldering iron																			
Lifetime characteristics	Insertion and removal life	20 times Repeated insertion and removal: min. 10 sec./time																			
Unit weight	Y5B (50 pin contacts): 0.16 g																				

2. Material and surface treatment

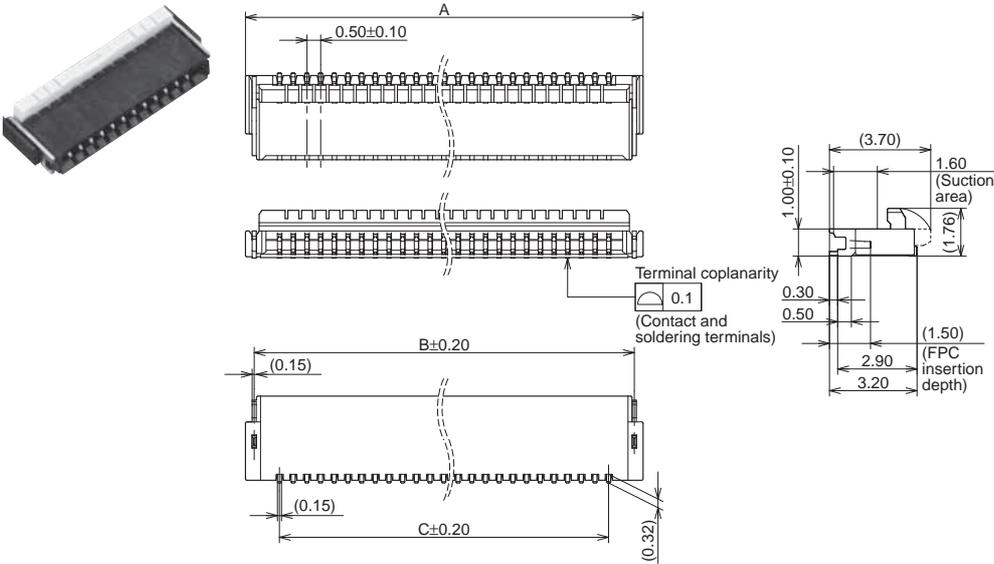
Part name	Material	Surface treatment
Molded portion	Housing: LCP resin (UL94V-0) Lever: LCP resin (UL94V-0)	—
Contact	Copper alloy	Contact portion; Base: Ni plating, Surface: Au plating Terminal portion; Base: Ni plating, Surface: Au plating
Holding contact portion	Copper alloy	Terminal portion; Base: Ni plating, Surface: Au plating
Soldering terminal portion	Copper alloy	Base: Ni plating, Surface: Au plating

DIMENSIONS (Unit: mm)

Interested in CAD data? You can obtain CAD data for all products with a mark from your local Panasonic Electric Works representative.

CAD Data

Y5B

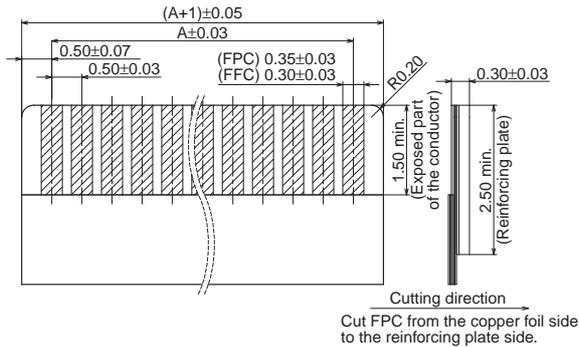


Number of pins/ dimension	A	B	C
4	4.00	3.36	1.50
5	4.50	3.86	2.00
6	5.00	4.36	2.50
8	6.00	5.36	3.50
10	7.00	6.36	4.50
12	8.00	7.36	5.50
14	9.00	8.36	6.50
16	10.00	9.36	7.50
24	14.00	13.36	11.50
28	16.00	15.36	13.50
30	17.00	16.36	14.50
32	18.00	17.36	15.50
34	19.00	18.36	16.50
40	22.00	21.36	19.50
42	23.00	22.36	20.50
50	27.00	26.36	24.50

Y5B RECOMMENDED FPC/FFC DIMENSIONS

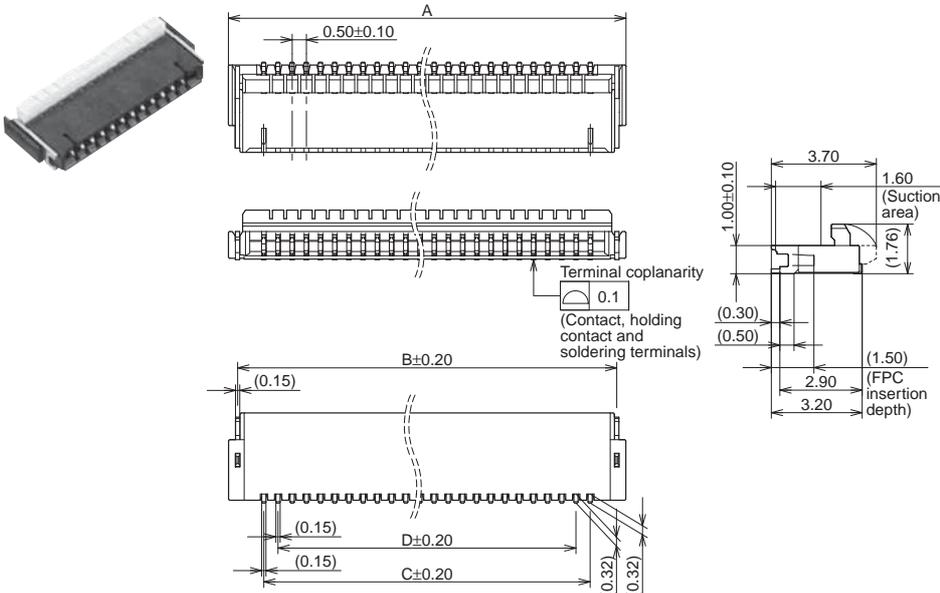
(Finished thickness: t = 0.3±0.03)

The conductive parts should be based by Ni plating and then Au plating.



Number of pins/ dimension	A
4	1.50
5	2.00
6	2.50
8	3.50
10	4.50
12	5.50
14	6.50
16	7.50
24	11.50
28	13.50
30	14.50
32	15.50
34	16.50
40	19.50
42	20.50
50	24.50

Y5BW



Number of pins/ dimension	A	B	C	D
2	4.00	3.36	1.50	0.50
3	4.50	3.86	2.00	1.00
4	5.00	4.36	2.50	1.50
6	6.00	5.36	3.50	2.50
8	7.00	6.36	4.50	3.50
10	8.00	7.36	5.50	4.50
12	9.00	8.36	6.50	5.50
14	10.00	9.36	7.50	6.50
22	14.00	13.36	11.50	10.50
26	16.00	15.36	13.50	12.50
28	17.00	16.36	14.50	13.50
30	18.00	17.36	15.50	14.50
32	19.00	18.36	16.50	15.50
38	22.00	21.36	19.50	18.50
40	23.00	22.36	20.50	19.50
48	27.00	26.36	24.50	23.50

NOTES

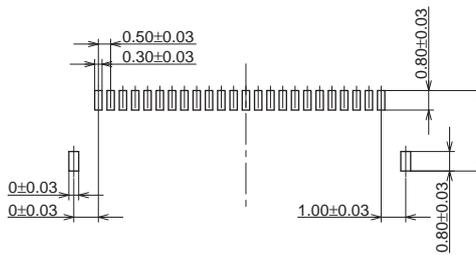
1. Recommended PC board and metal mask patterns

Connectors are mounted with high pitch density, intervals of 0.3 mm or 0.5 mm. In order to reduce solder bridges and other issues make sure the proper levels of solder is used.

The figures to the right are recommended metal mask patterns. Please use them as a reference.

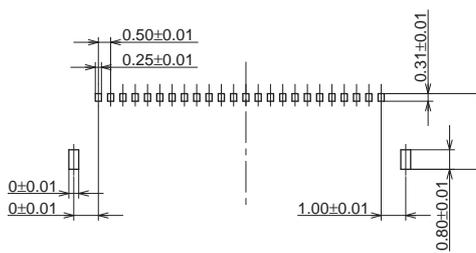
• Y5B/Y5BW

Recommended PC board pattern
(mounting layout)
(TOP VIEW)



Recommended metal mask pattern

Metal mask thickness: Here, 120 μ m
(Terminal portion opening area ratio: 31.8%)
(Soldering terminal portion opening area ratio: 100%)

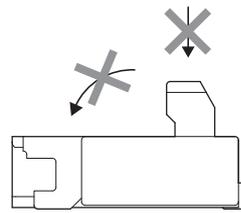


2. Precautions for insertion/removal of FPC

Do not apply an excessive load to the lever in the opening direction beyond its open position; otherwise, the lever may be deformed or removed.

Do not open/close the lever without an FPC inserted; otherwise, the terminals may be deformed, and the FPC insertion force may increase.

Do not apply an excessive load to the lever in a direction perpendicular to the lever rotation axis or in the lever opening direction; otherwise, the terminals may be deformed, and the lever may be removed.



These connectors are of the back lock type, which has the FPC insertion section on the opposite side of the lever.

Carefully place the FPC in the insertion position or the lever opening/closing position. Otherwise, a contact failure or connector breakage may occur.

These connectors have top and bottom double contacts. Do not insert an FPC upside down. Inserting an FPC in a direction opposite to that you intended may cause an operation failure or malfunction.

Fully open the lever to insert an FPC.

Completely insert the FPC horizontally.

An FPC inserted at an excessive angle to the board may cause the deformation of metal parts, FPC insertion failures, and FPC circuit breakages.

Insert the FPC to the full depth of the connector without altering the angle.

To close the lever, turn down the lever by pressing the entire lever or both sides of the lever with fingers tips.

If pressure to the lever is applied unevenly, such as to an edge only, it may deform or break. Also, make sure that the lever is closed completely. Not doing so will cause a faulty connection.

Avoid applying an excessive load to the top of the lever during or after closing the lever. Otherwise, the terminals may be deformed.

When opening the lever to remove the FPC, ensure that the lever will not go over the initial position; otherwise, the lever may be removed.

Remove the FPC at parallel with the lever fully opened. If the lever is closed, or if the FPC is forcedly pulled, the product or FPC may break.

If a lever is accidentally detached during the handling of a connector, do not use the connector any longer.

After an FPC is inserted, carefully handle it so as not to apply excessive stress to the base of the FPC.

3. Cautions for using Y5BW

The holding contacts cannot be used as conductors.

The holding contacts are located on both ends of the contacts, and the shape of the soldered portions is the same as that of the other contacts. Use caution to ensure connect identification.

Please refer to the latest product specifications when designing your product.

For Cautions for Use, see the “GENERAL NOTES FOR USING FPC CONNECTORS” in the [Connector Technical Information](#). For other details, please verify with the product specification sheets.