

Applications



Wearable Device



Patient Monitor



Automotive



Compact



Floating



125°C

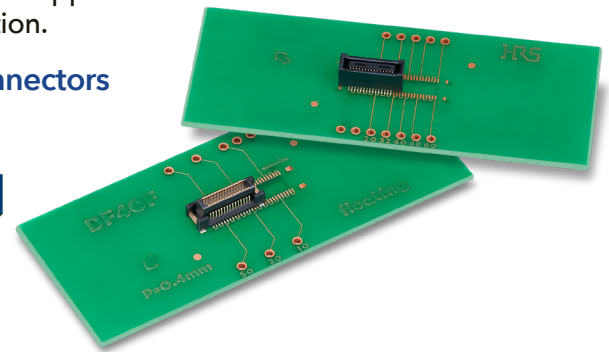
High Temp

DF40F Series: Small in Size, Big on Performance - Hirose's Compact Floating Board-to-Board Connector Solution

Step into Hirose's DF40F Series, where innovation meets compact design. Ideal for modern devices that demand efficient space utilization without compromising on performance, the DF40F is engineered for resilience. Its groundbreaking floating design effortlessly absorbs misalignments, ensuring reliable connections. With its space-saving footprint, heat resistance up to 125°C, and capability to support rapid data transfers, this connector is the future of seamless integration.

World's Smallest Width Class in Floating Board-to-Board Connectors

- 0.4mm Pitch, 3.68mm Width, Stacking Height 3.5 to 6.0mm
- Absorption of Misalignment
X and Y Directions : Floating Range ± 0.3 mm
Z Direction : Effective Mating Length $+0.25/0$ mm
- Wide Variety of Stacking Heights when mating with DF40T
- 125°C Heat Resistance for Automotive Specifications
- Supports High Speed Transmission
PCI-ex Gen.4(16Gbps) and MIPI D-PHY Ver.1.1(1.5Gbps)

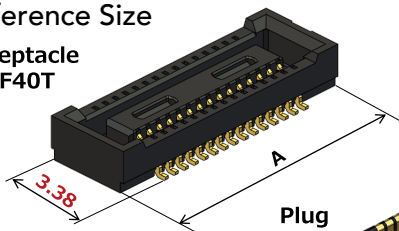


Small Size

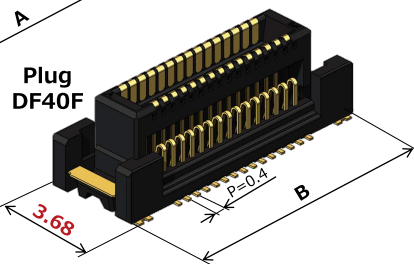
0.4mm Pitch, 3.68mm Width,
Stacking Height 3.5 to 6.0mm

Reference Size

Receptacle
DF40T



WORLD'S SMALLEST
Width Class in Floating
Board-to-Board Connectors



Unit : mm

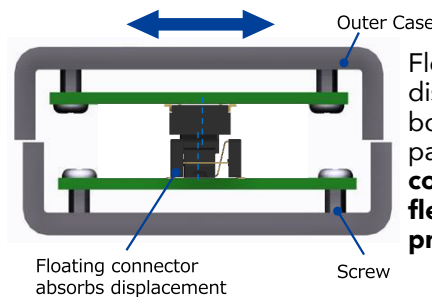
No. of Pos.	A	B
20*	6.6	7.63
30	8.6	9.63
40*	10.6	11.63

*20 and 40 pins are reference values.
please contact us with any custom needs.

It can be used in combination with
Plug DF40F(2.0)-30DP-0.4V and
Receptacle DF40TC(##)-30DS-0.4V.

Advantages of Floating Design

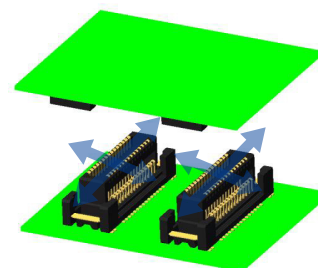
Connector absorbs misalignment tolerance



Floating connector
absorbs displacement

Floating design absorbs displacement between boards and stress to the panel from screws, **contributing to design flexibility in the end product.**

Can Mount Multiple Connectors on One Board



Floating design absorbs misalignment and allows mounting of multiple connectors on the same board.

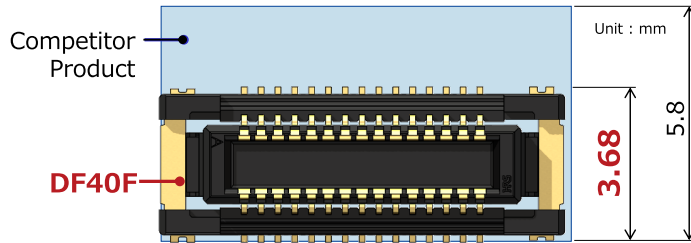
CLICK HERE
FOR MORE INFORMATION

CLICK HERE TO ORDER
SAMPLE NUMBER:
US-DF40FSAMPLE-23

High Power Supply (up to 15A)

Space-Saving with Small Width Comparison of PCB Mounting Space

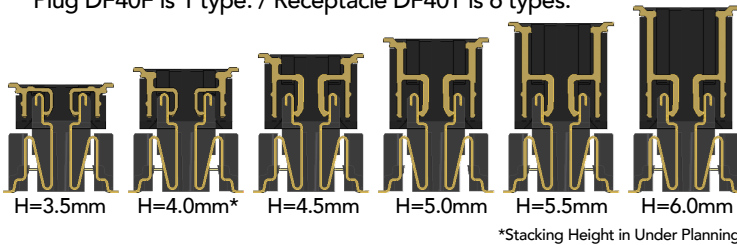
0.4mm Pitch, 3.5 to 6.0mm Stacking Height, 30pos.



PCB Mounting Space	Competitor Product	39% reduced	DF40F
	5.8 × 10.0 = 58mm ²		3.68 × 9.63 = 35.43mm ²

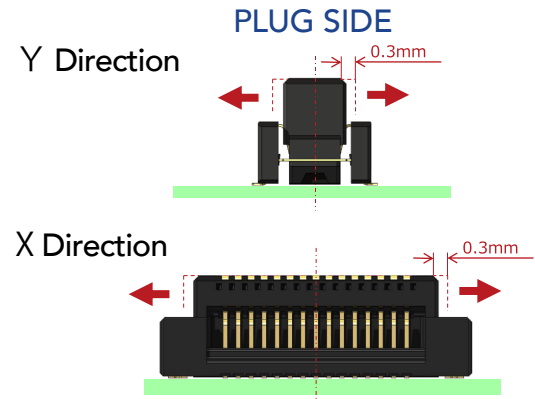
Mating Combination

Plug DF40F is 1 type. / Receptacle DF40T is 6 types.



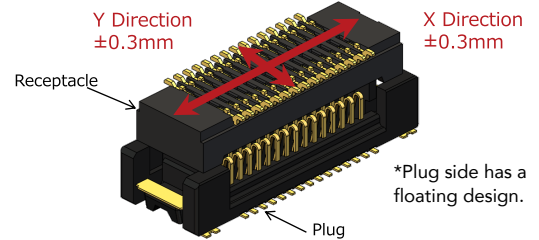
Floating Range (X & Y Directions)

Large Floating Range ±0.3mm in X and Y Directions



Absorb Board Mounting Misalignment with Connector

MATED



Specifications

MATERIAL AND FINISH

Component	Material	Finish, Remarks
Insulator	LCP*1	Black
Contact	Copper Alloy	Gold Plating (Nickel Under Plating)
Retention Tab (Plug DF40F)	Copper Alloy	Gold Plating (Nickel Under Plating)

PERFORMANCE CHARACTERISTICS

Rated Current	0.3A
Rated Voltage	30V AC/DC
Operating Temperature	-55 to +125°C*2
Contact Resistance	90mΩ Max.
Withstanding Voltage	100V AC for 1 min.
Insulation Resistance	50MΩ Min. (100V DC)
Mating Durability	10 times

*1 This product satisfies halogen free requirements defined as 900ppm maximum chlorine, 900ppm maximum bromine, and 1,500ppm maximum total of chlorine and bromine.

*2 Includes the temperature rising by current flow.