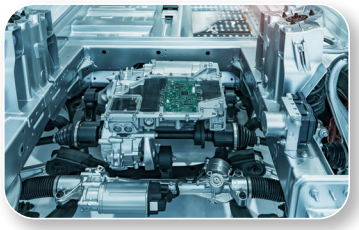
Product Overview

FX36 Series

HIROSE ELECTRIC AMERICAS

Applications



Automotive Powertrain Systems



Automotive Electric Power Steering Systems



Agricultural, Construction Machinery

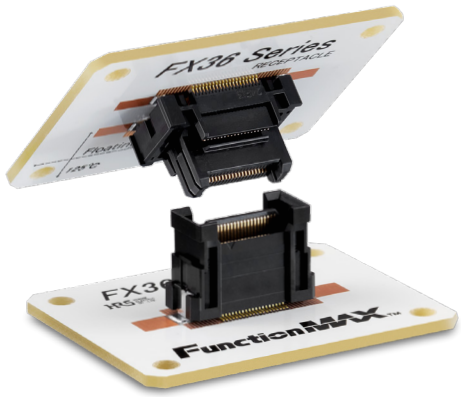


Meet Hirose's FX36 Series—a 0.5mm pitch floating board-to-board connector engineered for reliable performance in high-vibration environments. Designed to absorb PCB misalignment of up to ±0.7mm in the X and Y directions and ±0.5mm in the Z direction, the FX36 Series helps maintain stable electrical connections in demanding automotive and industrial applications.

Its compact design, vibration absorption structure, two-point contact system, and operating temperatures up to 125°C make the FX36 Series well suited for EV and HEV powertrain systems, inverters, converters, on-board chargers, electric power steering, and other applications where vibration resistance and connection reliability are critical.

KEY BENEFITS OF THE FX36 SERIES INCLUDE:

- A compact 0.5mm pitch design that supports high-density PCB layouts and space-saving system integration
- PCB misalignment absorption of ±0.7mm in the X and Y directions and ±0.5mm effective mating length in the Z direction
- A vibration absorption structure that helps maintain stable connections by absorbing PCB movement during operation
- A two-point contact design that enhances connection reliability in demanding environments
- Operation at temperatures up to 125°C for harsh automotive and industrial applications
- Available 15mm, 18mm, and 20mm stacking heights that support flexible board-to-board system designs



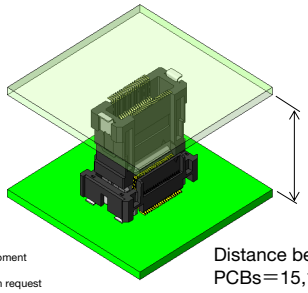
Dimensions

This automotive floating connector with a 0.5mm pitch, enables further space savings even in high-pin-count designs.

CLICK HERE
FOR MORE INFORMATION

CLICK HERE TO ORDER SAMPLE NUMBER: US-FX36SAMPLE-26

Mating Condition

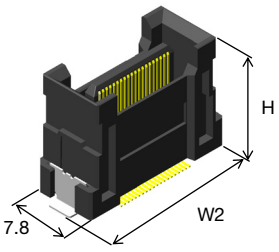


✔: Released
●: Under development
❍: Planned
△: Available upon request

Distance between PCBs=15,18,20

Distance between PCBs	40pos.	50pos.	60pos.	80pos.
15mm	△	△	△	●
18mm	△	●	❍	❍
20mm	✔	△	❍	●

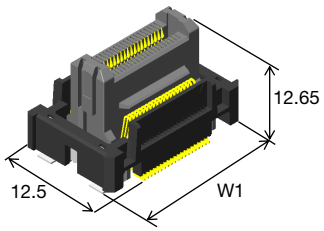
Header
(Rigid side)



[mm]

Distance between PCBs	15	18	20
Height: H	9	12	14

Receptacle
(Floating side)

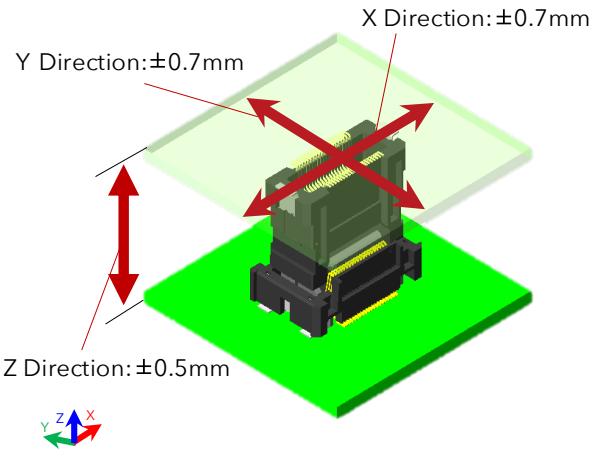


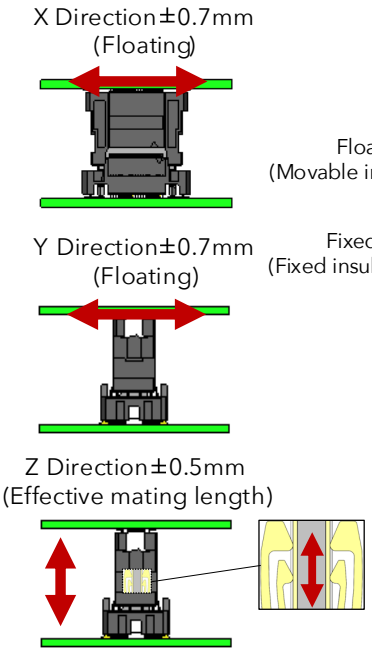
[mm]

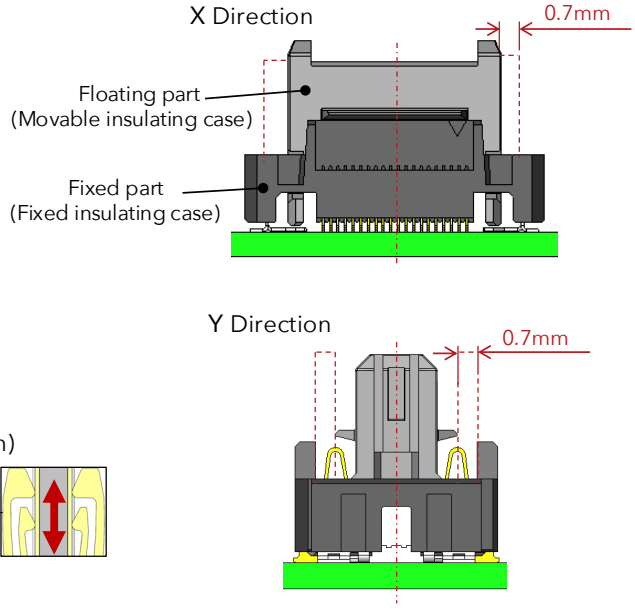
Longitudinal	40pos.	50pos.	60pos.	80pos.
W1	19.8	22.3	24.8	29.8
W2	19.1	21.6	24.1	29.1

Mating Possible Even with Misalignment

XY-direction floating movement
Effective mating length (Z-direction)







Specifications

Material and Finish

COMPONENT	MATERIAL	FINISH, REMARKS
Insulator	Polyamide Resin	Black/UL94V-0
Contact	Copper Alloy	Contact: Gold Plating (Nickel Under Plating) Mounted Portion: Gold Plating (Nickel Under Plating)
Retention Tab	Copper Alloy	Pure Tin Plating (Nickel Under Plating)

Performance Characteristics

Rated Current	0.5A / pin
Rated Voltage	50V AC/DC
Operating Temperature	-40 to +125ºC*
Contact Resistance	65mΩ Max.
Withstanding Voltage	150V AC for 1 min.
Insulation Resistance	1,000MΩ Min. (100V DC)
Mating Durability	5 times

*Includes the temperature rise due to current flow.

- RoHS compliant
- No. of Pos.: 40, 50, 60, 80pos.
- Height:15, 18, 20mm

For additional information please go to
https://www.hirose.com/en/product/series/FX36
Specifications herein are subject to change without notice.
Contact Hirose for latest specifications, drawings, or availabilities.

STAY CONNECTED