

Applications



Automotive Battery



Construction Equipment



Agriculture Equipment

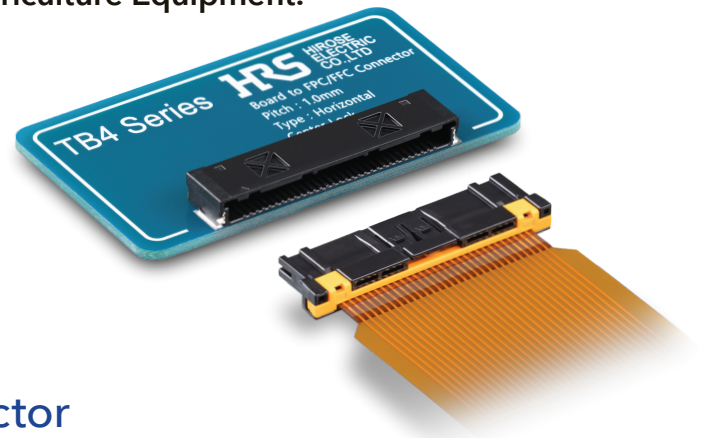


Discover Hirose's TB4 Series, a high-performance automotive FPC/FFC-to-Board connector with a 1.0mm pitch & center-lock design.

TB4 Series is built to meet automotive industry standards, it ensures vibration and heat resistance while delivering high contact reliability through a two-point contact design. Its FPC/FFC connection and compact design simplify assembly while ensuring safety with electric shock prevention and mis-insertion protection. Supporting two key code types (Black, Gray), the TB4 Series is ideal for Automotive Battery, Construction Equipment and Agriculture Equipment.

KEY BENEFITS OF THE TB4 SERIES INCLUDE:

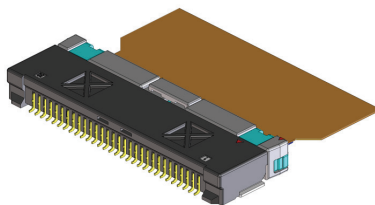
- A two-piece FPC/FFC connection simplifies assembly and minimizes size and weight.
- High reliability with vibration and heat resistance, compliant with USCAR-2 standards.
- Two-point contact design for enhanced contact reliability.
- A safe design prevents electric shock and mis-insertion, providing added protection during handling.
- Supports two key code types (Black, Gray) for secure and error-free connections.



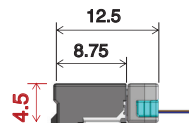
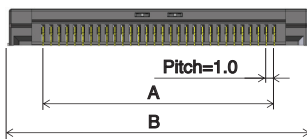
Two-Piece, FPC/FFC-to-Board Connector

1mm Pitch, Single Row

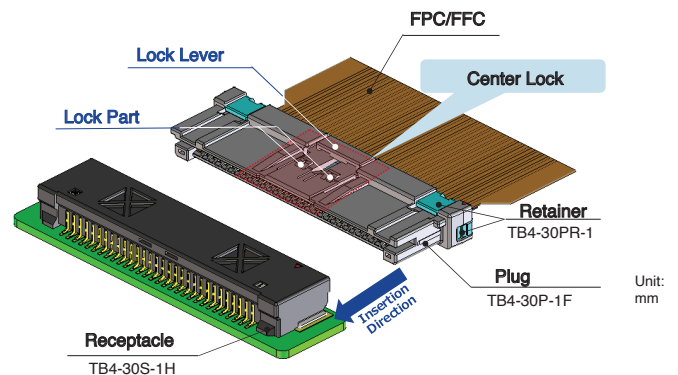
Example: 30 pos.



**Mating Height: 4.5mm,
Low-profile, Slim
Design Contributes to
Space-saving**



Mating Combination



Unit:
mm

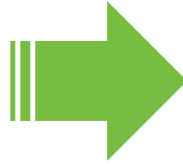
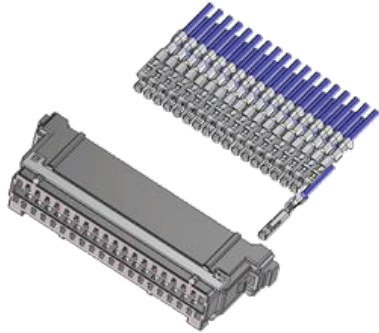
CLICK HERE
FOR MORE INFORMATION

No. of Pos.	10	16	22	30
Dimension A	9.0	15.0	21.0	29
Dimension B	17.9	23.9	29.9	37.9

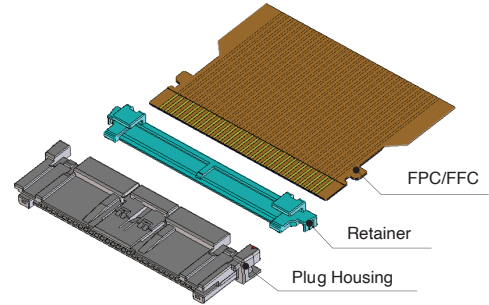
CLICK HERE TO ORDER
SAMPLE NUMBER:
US-TB4SAMPLE-24

Advantages of Two-piece FPC/FFC-to-Board Connection

Discrete Wire Connection



FPC/FFC Direct Connection Design



- Traditional harness processes such as soldering and crimping are complex.
- Each pin requires its own contact and wire preparation.
- Insertion of contacts must be done pin by pin.
- Wire count directly contributes to an increase in overall weight.
- Additional space is needed for wire routing and bending radius.

- A simple harness process involves inserting the FPC/FFC into the plug housing and then attaching the retainer.
- The plug side requires no additional contacts, only the FPC/FFC.
- Improves workability with FPC/FFC insertion at all once.
- Weight is reduced by switching from discrete wire to FPC/FFC.
- Enables space-saving FPC/FFC routing.

Specifications

Material/Finish

Component		Material	Finish, Remarks
Receptacle	Insulator	PA* ¹	Black, Gray / UL94V-0
	Contact	Copper Alloy	Contact: Gold Plating Lead: Gold Plating
	Retention Tab	Brass	Tin Plating
Plug	Housing	PA* ¹	Black, Gray / UL94V-0
	Retainer	PA* ¹	Orange / UL94V-0

*¹ This product satisfies halogen free requirements defined as 900ppm maximum chlorine, 900ppm maximum bromine, and 1500ppm maximum total of chlorine and bromine.

Performance Characteristics

Rated Current	1.0A
Rated Voltage	100V AC/DC
Operating Temperature	-40 to +125°C* ²
Contact Resistance	25mΩ Max.
Withstanding Voltage	500V AC for 1 min.
Insulation Resistance	100MΩ Min. (500V DC)
Mating Durability	10 times

- RoHS2 Compliant
- No. of Pos.*³: 10, 16, 30 pos. (Mass Production)
22 pos. (Under Planning)

*² Includes the temperature rise due to current flow.
If the heat resistance of the FPC/FFC is less than 125°C, the heat resistance of the FPC/FFC is applied.

*³ If you have any questions about pin variation, please contact a Hirose representative.



For additional information please go to
www.hirose.com/product/series/TB4

Specifications herein are subject to change without notice.
Contact Hirose for latest specifications, drawings, or availabilities.

STAY CONNECTED

