

Applications



Automotive Battery



Construction Equipment



Agriculture Equipment

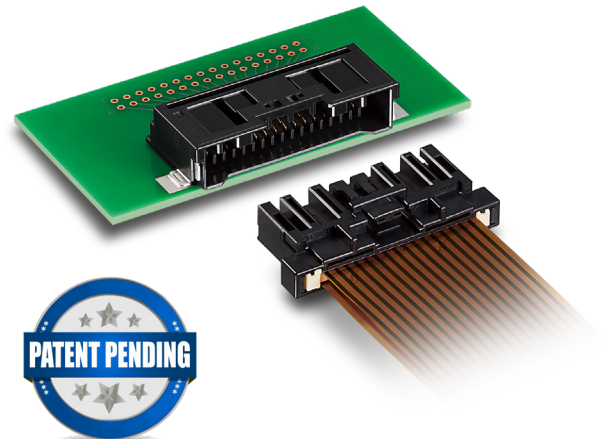


Explore Hirose's ZK1 Series, a high-performance automotive FPC-to-Board connector designed for Battery and other devices where safety, reliability, and high heat resistance are essential.

Meet Hirose's ZK1 Series: A compact, high-performance automotive FPC-to-Board connector with a 2mm pitch/1mm PCB pitch, designed for reliability in high-heat environments. With heat resistance up to 125°C, vibration durability, and a terminal-less plug design for simplified assembly, the ZK1 Series ensures dependable connectivity in harsh conditions.

KEY FEATURES OF THE ZK1 SERIES INCLUDE:

- Two-point contact design enhances dust resistance and ensures high contact reliability.
- Safety-first design with electric shock prevention to guard against terminal exposure and accidental contact.
- Simplified assembly with a terminal-less plug design for faster installation and improved work efficiency.
- Compact, lightweight design with a 2mm FPC pitch/1mm PCB pitch, reducing size and weight in automotive applications.
- Withstands temperatures up to 125°C and resists vibrations, ensuring reliable performance in demanding environments.

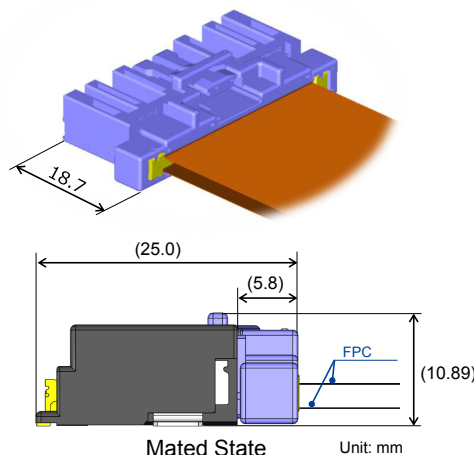
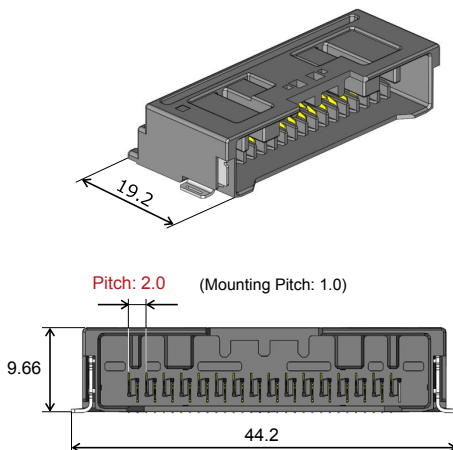


Compact & Light Weight

Example: 32pos.

Receptacle: ZK1-32DS-2H

Plug Housing: ZK1-32DP-HU
Retainer : ZK1-32DP-R

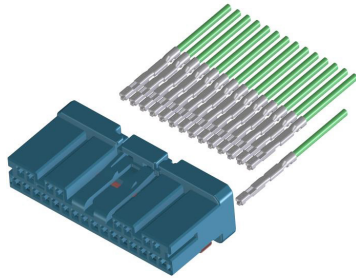


CLICK HERE
FOR MORE INFORMATION

CLICK HERE TO ORDER
SAMPLE NUMBER:
US-ZK1KSAMPLE-24

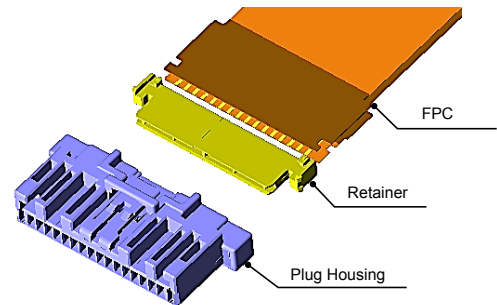
Advantages of Two-piece FPC-to-Board Connection

DISCRETE WIRE CONNECTION



- Complicated harness process such as soldering and crimping.
- Requires contact and wire preparation for the number of pins.
- Requires contact insertion for the number of pins.
- Increases weight in proportion to the number of wires.
- Requires routing space for wire bending R.

FPC DIRECT CONNECTION DESIGN



- A simple harness process that involves inserting the FPC into the plug housing and then attaching the retainer.
- Plug side is not required contact, FPC only.
- Improves workability with FPC insertion at all once.
- Enables weight reduction by switching from discrete wire to FPC.
- Enables space-saving FPC routing.

Contributes to simplification of assembly & reduction in size and weight of the end products.

Specifications

Material and Finish

COMPONENT		MATERIAL	FINISH, REMARKS
Receptacle	Housing	PA	Black
	Contact	Copper Alloy	Gold Plating (Nickle Underplating)
	Retention Tab	Brass	Tin Plating (Nickle Underplating)
Plug	Housing	PA	Black
	Retainer	PA	Beige

Performance Characteristics

Rated Current	1A
Rated Voltage	50V AC/DC
Operating Temperature	-40 to +125°C*
Contact Resistance	Initial: 10mΩ Max. After Testing: 20mΩ Max.
Withstanding Voltage	1,000V AC for 1 min.
Insulation Resistance	100MΩ Min. (500V DC)
Mating Durability	10 times

- RoHS2 Compliant
- No. of Pos.: 32pos. (Mass Production), 24, 40pos. (Under Planning)

*Includes the temperature rise due to current flow.



For additional information please visit:
www.hirose.com/en/product/series/ZK1

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

STAY CONNECTED

