



HRS HIROSE
ELECTRIC
AMERICAS

HUMANOID ROBOTICS:

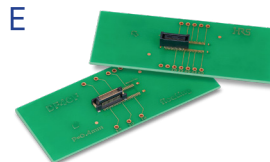
Connectors for Today's
Challenges—and
Tomorrow's Needs



CONNECTING THE FUTURE

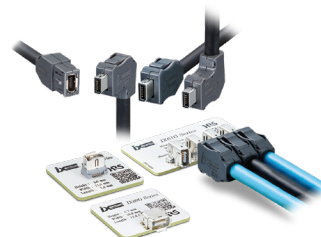
The Head

Cameras, LiDAR, microphones, speakers, indicator lights, and—in some regions—displays or facial-movement mechanisms.



DF40F Series

0.4mm Pitch, 1.5 to 4.0mm Height,
Board-to-Board/FPC-to-Board



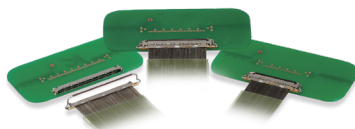
ix Industrial™ Series

IEC Standard Compliant
Next-Generation
Industrial Transmission



FH34 Series

0.5mm Pitch, 1.0mm Height,
Top and Bottom Contact
Back Flip FPC/FFC



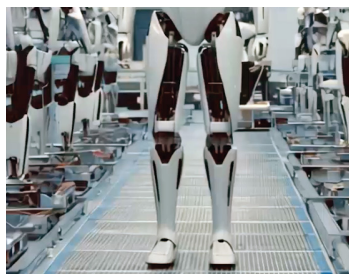
DF81 Series

0.4mm Pitch,
Horizontal Mating,
Board-to-Micro-Coaxial Cable



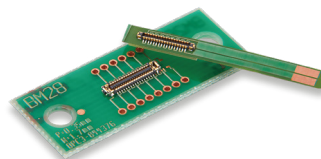
BF4M Series

Active Optical Connector,
Electrical Interface
with 1.5mm Height



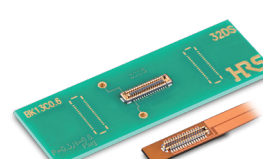
The Lower Body

Legs, hips, knees, and feet—focusing on balance, high-load actuators, stability, shock, and mobility sensors.



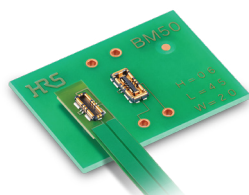
BM28 Series

0.35mm Pitch,
0.6mm Stacking Height,
Up to 5A, 20Gbps, FPC-to-Board



BK13 Series

0.35mm Pitch, 5A,
0.6-2.0mm Stacking Height,
1.9mm Width, Hybrid FPC-to-Board



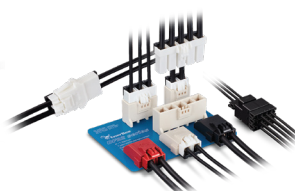
BM50 Series

0.35mm Pitch, 0.6mm Stacking Height,
15A Rated Current, Power/Signal Hybrid
FPC-to-Board



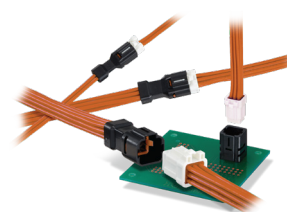
DF51 Series

SignalBee™ 2mm Pitch,
Positive Lock
(UL, C-UL Listed)



DF22 Series

EnerBee™ 7.92mm Contact Pitch
High-Current Connectors for Internal
Power Supplies (UL, C-UL and TÜV Listed)



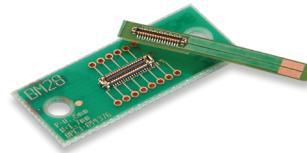
DF62W Series

Water Resistant,
Slim In-line



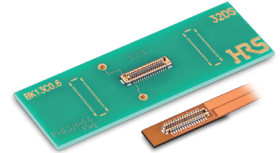
The Upper Body

Arms, shoulders, elbows, and the complex dexterous hand/gripper systems.



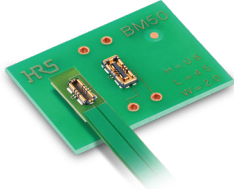
BM28 Series

0.35mm Pitch,
0.6mm Stacking Height,
Up to 5A, 20Gbps, FPC-to-Board



BK13 Series

0.35mm Pitch, 5A,
0.6-2.0mm Stacking Height,
1.9mm Width, Hybrid FPC-to-Board



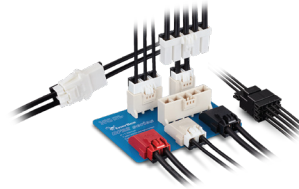
BM50 Series

0.35mm Pitch, 0.6mm Stacking Height,
15A Rated Current, Power/Signal Hybrid
FPC-to-Board



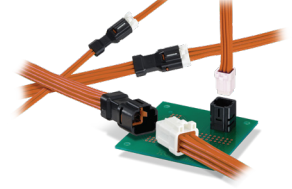
DF51 Series

SignalBee™ 2mm Pitch,
Positive Lock
Connector (UL, C-UL Listed)



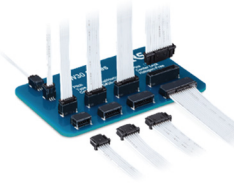
DF22 Series

EnerBee™ 7.92mm Contact Pitch
High-Current Connectors for Internal
Power Supplies (UL, C-UL and TÜV Listed)



DF62W Series

Water Resistant,
Slim In-line



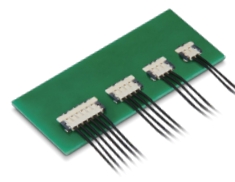
KW30 Series

SignalBee™ 1mm Pitch,
Single-row, Center Lock,
Wire-to-Board



DF61Y Series

SnapBee™ Small-Sized,
Low Profile Wire-to-Board
for Power Supply for Vertical Mating



DF58 Series

SnapBee™ Small-Sized,
Low Profile Wire-to-Board
for Power Supply



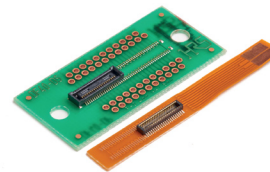
LF Series

Shielded Small
Waterproof Connector



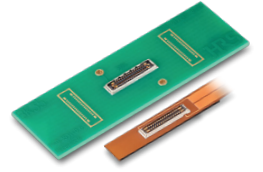
The Torso

CPU/GPU, power distribution,
battery system, multiple PCBs,
internal communication, and
major I/O.



DF40GL Series

0.4mm Pitch/1.5mm Height,
Positive Lock, Shielded Board to Board/
Board to FPC Connector



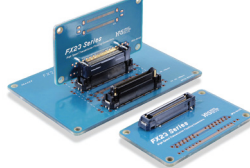
BK35 Series

0.35mm Pitch / 2.2mm Depth /
0.6mm Stacking Height
High-Speed, Shielded, Power/Signal Hybrid



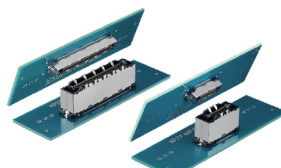
IT14 Series

Mirror Mezz, High Speed,
Low Height,
BGA Mezzanine Connector



FX23 Series

FunctionMAX™ 0.5mm Pitch,
Power & Signal Hybrid,
Floating, High-Speed



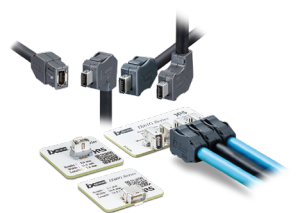
KP27F Series

0.5mm Pitch, 21mm Stacking Height,
125°C Heat Resistant,
Floating Board-to-Board Connector



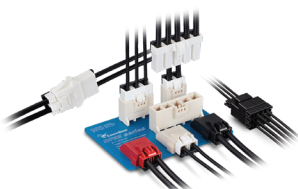
CX USB Type C Series

The Next-Generation
USB Standard USB
Type-C™ Connectors



ix Industrial™ Series

IEC Standard Compliant
Next-Generation Industrial
Transmission Connector



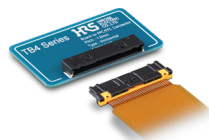
DF22 Series

EnerBee™ 7.92mm Contact Pitch
High-Current Connectors for Internal
Power Supplies (UL, C-UL and TÜV Listed)



AU1 Series

USB Type-C
Connector for
Automotive



TB4 Series

For Automotive, 1.0mm Pitch,
Center Lock,
FPC/FFC-to-Board



ZE05 Series

High Heat and Vibration Resistance,
0.5 Size, 2mm pitch
Automotive Interface



ZH05 Series

0.5mm Size, 2mm Pitch,
Wire-to-Board with Short-Circuit/
Electric Shock Prevention Design
Hybrid Automotive