

PRODUCT SELECTOR GUIDE



Product Selector Guide

WIRE-TO-BOARD & I/O INTERCONNECT SOLUTIONS

Configurations											
Pin count	16, 26, 40, 50	2, 4, 5, 6, 8, 10, 12, 14	2, 3, 4, 6, 8, 10, 12	12 - 80	2, 3, 4, 5, 6, 8, 10, 12	2, 3, 4, 5, 6, 8, 10, 20	1	1	30, 48, 96, 160	4, 6, 8, 10	3, 4, 5, 6, 8, 12, 17
Number of rows	2	1	1	2	1	1, 2	1	1	3, 5	1	-
Pitch (mm)	0.8	1.27	1.27	1.27	2.0	2.54	-	-	2.54	-	-
Current rating (A) per contact at 20°C	2.3	up to 9.0 (2 pins)	8.7	1.7	up to 8.0	12	40	up to 10 per press-fit pin	2	1.5	1.5 - 12
Data rate (Gbit/s)	3	-	-	3	-	-	-	-	< 1	1	0.1 - 10
PCB termination	SMT	SMT	SMT	SMT, Pressfit	Solder, SMT	SMT	Solder, Pressfit	SMT, Pressfit	Pressfit, Solder, THR	Solder, SMT	SMT, THR, SMT/THR
Cable termination	IDC	IDC	IDC	IDC	Crimp	Crimp	Screw	Screw, Nut	Crimp, Faston	-	IDC
Mating cycles	500	100	500	500	20	500	-	-	400	1000	100
Wire cross section *	AWG 34	0.35 mm ²	AWG 22, 24, 26	AWG 30	AWG 22, 24	AWG 18, 20, 22, 24, 26	-	-	AWG 20 - 26, 24 - 28	-	AWG 22 - 26
Latching	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Optional (housing)	Yes	thread
PCB pegs	Yes	Yes	Yes	Optional	Yes	Yes	No	No	No	Yes	Yes

* AWG 18 \triangleq 0.82 mm², AWG 20 \triangleq 0.56 mm², AWG 22 \triangleq 0.35 mm², AWG 24 \triangleq 0.22 mm², AWG 26 \triangleq 0.14 mm², AWG 30 \triangleq 0.06 mm²

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BOARD-TO-BOARD INTERCONNECT SOLUTIONS

Configurations											
Pin count	6, 9, 10, 12, 14, 50, 54	12 - 100	26, 32, 44, 50, 75, 91, 133	5	7, 9, 18, 20, 32	2, 3, 4, 6	12 - 80	40 - 200	20, 30, 40, 45, 48, 60 pairs	6 - 160	2 - 15
Number of rows	1, 2	2	2, 3, 7	1	1, 2	1	2	5, 8	2, 3, 4	2, 3, 4, 5	1, 2, 3
Pitch (mm)	0.8	0.8	1.0	2.0	-	1.27	1.27	2.0	2.5 x 4.5 (pair-to-pair)	2.54	5.08, 7.62
Board-to-board height	3, 5	5 - 19	5 - 20	5 - 20	-	-	8 - 20, 20 - 40 with Adapter	15 - 26.5 (including 1.5mm wipe length)	15, 18	16.8	-
Current rating (A) per contact at 20°C	2.7	2.3	1	up to 18	up to 15	up to 4.8	up to 1.7	1.5	0.9 Up to 8 A when using shielding (4-10 pin)	2	up to 15
Data rate (Gbit/s)	up to 3	3	25 +	-	-	-	3	2	10 - 25+	< 1	-
Termination	SMT	SMT	SMT/SMT, SMT/THR	SMT, SMT/THR, THR	SMT	SMT	SMT, Pressfit	Pressfit	Pressfit	Pressfit, Solder, THR	Pressfit, Solder
Shielding	No	No	Yes	Yes	No	No	No	Optional	Yes	No	No
Mating cycles	10	500	500	500	500	500	500	250	250	400, 500	400, 500
PCB pegs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Optional	No	No	No

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PRODUCT FAMILIES AND VARIANTS

MicroStac



Unique hermaphroditic design ensures two points of contact in a stamped interface. The high-density package supports small outline requirements without compromising reliability or integrity of the interface over the life of the product.

MicroCon



Designed for demanding industrial applications, the MicroCon's Blind-Mate pre-centering with increased catch range ensures secure plugging, while the reinforced outer walls of the connector allow a high degree of robustness.

MicroSpeed | MicroSpeed Power



The MicroSpeed connector system is perfect for high data transmission rates. Thanks to outstanding signal integrity, data rates up to 25+ Gbit/s can be realized. The space-saving, interference-proof connectors are maximally electromagnetically compatible and safe.

MicroBridge



MicroBridge connectors provide high retention and optional electrical CPA (connector position assurance) for secure and correct connections. Thanks to their high temperature resistance, they can be used in high-heat applications such as LEDs for front headlights.

MiniBridge | MiniBridge Koshiri



With a rugged design and low profile, this single-row, versatile product line continues to support commercial and industrial applications where high signal/power and limited space are required. The Koshiri variants of the connectors offer especially high mating reliability.

MaxiBridge



Our MaxiBridge connector system is designed for high reliability and high current in a compact design. Additionally, five mechanical and color-coded choices are available with our rugged double-sided latching.

SMC



The versatility and high demand for the SMC has resulted in a wide variety of pin counts and configurations over the life of the product family, supporting almost any BTB or WtB application requirement. ERNI also offers full turnkey cable solutions.

MicroSpeed Power Module | Power Connector



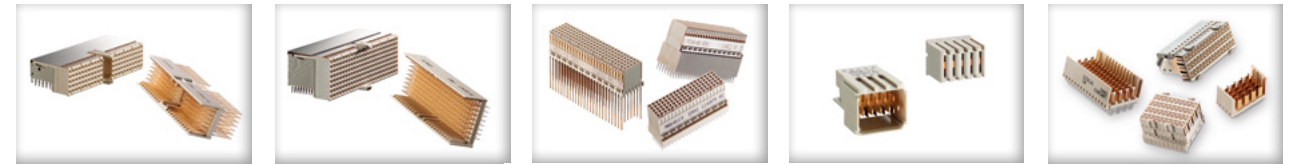
The connector family offers high current carrying capacity despite its small dimensions. Thanks to a broad range of different types and many different heights, developers have excellent flexibility when arranging circuit boards.

iBridge Ultra



Wherever reliable WtB connections are required, the iBridge Ultra connector family offers suitable solutions. The connectors have a high current carrying capacity and integrated retaining brackets for a secure connection.

ERmet (2mm HM) | Power | ZD High Speed



Industry standard connector series that accommodates versatile and cost-effective board-to-board requirements for high density and high-performance applications.

PowerElements | PowerTaps



High power, WtB connectors with press-fit terminations. Gas-tight interface to the PCB without the need of high temperature soldering and negative effects on the PCB substrate. Various sizes and configurations available; custom products available upon request.

M8/ M12 Circular



Implement quick and simple connector solutions with this family of modular circular connectors that support multiple industry segments. New offerings include shielded housings and high pin count solutions for high performance/high density I/O requirements.






















Others



ERNI also offers a variety of other products and solutions like Modular Jacks, ERbic, DIN 41612 / IEC 60603-2 Connectors, Housings and Pre-Alignment Modules.

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PRODUCT PORTFOLIO AND APPLICATION AREAS

																						
Automation																						
PLC / DCS / Remote I/O	■	■	■	■			■	■		■		■					□	■	■	■	■	■
Drives technology	■	■	■	■			■	■		■		■	□				■	■	■	■	■	■
Automotive																						
Headlight					■	■	■		■					□			□					
Battery management systems/ Power electronics				□	■	■	■	■	□					■		■						
Transport				■				■											■			■
Medical	■	■	■	□		■	■	■	■	■	■		■		■						□	
Aerospace and Military			■	■				□		■	■	■	■									■
Tele- and Data-communication			■	□				□	■	■	■	■	■		■		■	□			■	■
Instrumentation	■		■	□				■	■	■	■		■	■	■		■	□			■	■

■ very suitable
 ■ very suitable (for special applications)
 □ well suited



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ABOUT ERNI

ERNI is a leading global connector manufacturer and service provider. Spanning over 40 countries and state-of-art manufacturing facilities in Europe, North America and in Asia Pacific, ERNI is well positioned to respond to changes quickly in a rapidly growing market with increasingly complex requirements.

ERNI develops and manufactures a wide variety of electronic connectivity solutions for various areas of applications. An emphasis is on connectors for the automotive area and industrial automation. Under extreme conditions, it is especially important for electrical connections to work reliably. ERNI offers a broad range of automotive connectors for headlight systems, battery management systems and power electronics, and other applications such as assistance and security systems. For the automation sector, ERNI presents powerful connector solutions for programmable logic controllers (PLC), remote I/O systems, drives, and other future-oriented industrial applications.

Furthermore, ERNI supplies other industries like IoT, Energy, Aerospace, Medical, Instrumentation, Communication and Transport with high quality connector solutions, cable assemblies, cable enclosures and more. Our teams of highly experienced Sales Engineers around the world and partnering with leading distributors enable us to be closer to our customers, providing the ideal solutions to their needs.

CONFIGURATION KEY

Board-to-Board (BtB)



PCB Mezzanine



PCB Coplanar



PCB Angled

Wire-to-Wire (WtW)



Wire-to-Wire

Wire-to-Board (WtB)



Wire Angled-to-Board Angled



Wire Vertical-to-Board Angled



Wire Angled-to-Board Vertical



Wire Vertical-to-Board Vertical

Panel



Panel



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