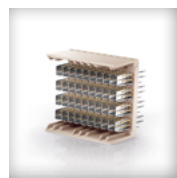


PRODUCTS & SOLUTIONS



Products & Solutions

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.

Quality Management Certifications:

- IATF 16949: 2016
- ISO 9001: 2008
- ISO 14001: 2015
- UL Underwriter Laboratories Inc., file No. E335534, E335340, E258941, E332028

Environment Management Certifications:

- DIN ISO 14001:2015 TÜV DE: Registration No. 01 104 0102245

Product Certifications:

- USCAR for several connectors
- Connectors following VW75174
- Bellcore certification for several connectors
- UL Underwriter Laboratories Inc., file No. E472031, E145613, E84703, E325697, E478662

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



Products & Solutions

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Products & Solutions

INDUSTRIES —

AUTOMOTIVE



Battery management
systems &
power electronics

Headlights

AUTOMATION



PLC, DCS,
Remote I/O

Drives technology



Products & Solutions

INDUSTRIES —

OTHER MARKETS

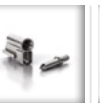


IoT, Aerospace, Medical,
Instrumentation,
Communication,
Transport, Energy



OVERVIEW PRODUCTS AND APPLICATIONS

PRODUCT PORTFOLIO AND APPLICATION AREAS

Page	10	11	12 / 13	14	15	16	17	18	19 / 20	21	22	23	24	25	26	27	28	29	30	31	32
																					
	MicroStac	MicroCon	MicroSpeed	MicroSpeed Power Module I Power Connector	MicroBridge	MiniBridge I MiniBridge Koshiri	MaxiBridge	SMC	iBridge Ultra	ERmet 2mm Hard Metric I ERmet Power Module	ERmet ZD High-Speed	Pre-Alignment Modules	DIN 41612 / IEC 60603-2	Power Taps	High Current- / Coax-Contacts	PowerElements	Modular Jacks	M8 / M12 Circular Connectors	ERbic Field Bus Interface	D-Sub and DIN cable housings	Housings / Enclosures
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																				



BOARD-TO-BOARD INTERCONNECT SOLUTIONS

	MicroStac	MicroCon	MicroSpeed Signal	MicroSpeed Power Module	Power Connector	MiniBridge	SMC	ERmet 2mm Hard Metric	ERmet ZD High-Speed	DIN 41612 / IEC 60603-2 Signal	DIN 41612 / IEC 60603-2 Power
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 mating 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

WIRE-TO-BOARD & I/O INTERCONNECT SOLUTIONS

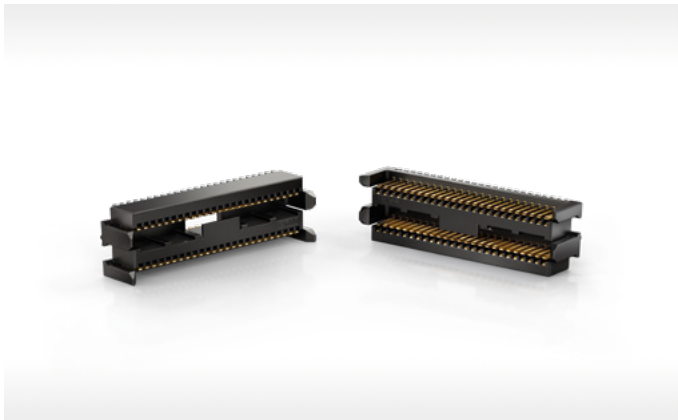
	MicroCon	MicroBridge	MiniBridge I MiniBridge Koshiri	SMC	iBridge Ultra	MaxiBridge	Power Taps	PowerElements	DIN 41612 / IEC 60603-2	Modular Jacks	M8 / M12 Circular Connectors
Configurations											
Pin count	16, 26, 40, 50	2, 4, 5, 6, 8, 10, 12, 14	2, 3, 4, 6, 8, 10, 12	12 - 80	2, 3, 4, 5, 6, 8, 10, 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 mating 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 pin)	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 mm²	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

Products & Solutions

CONNECTORS

MicroStac



HIGH CURRENT CARRYING CAPACITY AT SMALL PACKING DENSITY.

- space-saving design
- efficient and economical
- dual-side board loading
- identical plug and counter plug
- low inventory costs
- relatively high contact force
- reliable connections
- high mating reliability
- single and double row versions
- various board-to-board heights

Pitch	0.8 mm
No. of Pins	6, 9, 10, 12, 14, 50, 54
Termination	SMT
Current rating (A)	up to 2.7 A per contact at 20 °C
Temperature range	-55 °C to 125 °C
Data transmission rate	up to 3 Gbit/s
Mated Stacking Height	3 and 5 mm

Configurations

A small diagram showing the MicroStac connector configurations, including different pin counts and stacking heights.

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Instrumentation
3. Medical
4. Aerospace and Military



Products & Solutions

CONNECTORS

MicroCon



FITS ANYWHERE, ANYTIME: FOR LOTS OF CONTACTS EVEN WHEN SPACE IS SHORT.

- miniaturized, compact design
- straight and angled connectors
- many pincounts available
- variable PCB spacings possible
- IDC cable connectors with AWG 34
- a high degree of reliability
- dual beam spring contact design
- shock-, vibration-, heat-resistant
- high holding force on printed circuit boards

Pitch	0.8 mm
No. of Pins	12, 16, 26, 32, 40, 50, 68, 80, 100
Termination	SMT, IDC
Current rating (A)	up to 2.3 A per contact at 20 °C
Data transmission rate	up to 3 Gbit/s
Temperature range	-55 °C to 125 °C
Mated Stacking Height	5 to 19 mm

Configurations

A small diagram showing the MicroCon connector configurations, including different pin counts and stacking heights.

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Instrumentation
3. Medical
4. Aerospace and Military

Products & Solutions

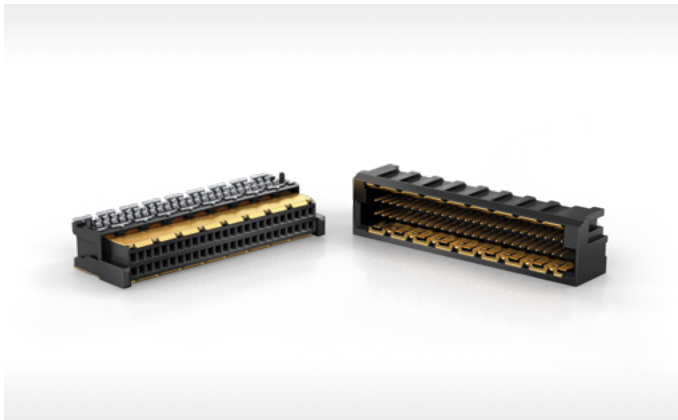
CONNECTORS



Products & Solutions

CONNECTORS

MicroSpeed High-Speed



- COMES COMPLETE WITH ITS OWN BODYGUARD: NO CHANCE FOR ELECTROMAGNETIC INTERFERENCE.
- high signal integrity
 - EMC improved shielding (high interference-resistance / excellent EMC)
 - reliable connections
 - blind-mate variants available
 - stack heights from 5 to 20 mm
 - data rates up to 25+ Gbit/s
 - pronounced pre-alignment
 - automatic process capable
 - reliable retention force on the PCB

Pitch	1.0 mm
No. of Pins	26, 32, 44, 50, 75, 91, 133
Termination	SMT, SMT/THR
Current rating (A)	approx. 1 A per contact at 20 °C
Data transmission rate	25+ Gbit/s
Temperature range	-55 °C to 125 °C
Board-to-Board Height	5 - 20 mm

Configurations

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Instrumentation
3. Medical
4. Aerospace and Military

MicroSpeed Power Module & Power Connector



- POWER IS ITS ELEMENT. SMALL ON SPACE, BIG ON SAFETY.
- high current density
 - current rating up to 18A
 - reliable connections
 - blind-mate variants available
 - stack heights from 5 to 20 mm
 - pronounced pre-alignment
 - automatic process capable
 - reliable retention force on the PCB

Pitch	2.0 mm
No. of Pins	5 (MS Power Module) 7, 9, 18, 20, 32 (Power Connector)
Termination	SMT, SMT/THR, THR (MS Power Module) SMT (Power Connector)
Current rating (A)	up to 18 A per contact at 20 °C (MS Power Module) up to 15 A per contact at 20 °C (Power Connector)
Temperature range	-55 °C to 125 °C
Board-to-Board Height	5 - 20 mm (MS Power Module)

Configurations

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Instrumentation
3. Medical

Products & Solutions

CONNECTORS

MicroBridge



FOR PEAK PERFORMANCE AT PEAK POWER: EXCEPTIONAL RELIABILITY MEETS MINIATURE DESIGN.

- compact cable connector system for Automotive applications
- optionally available electrical CPA (Connector Position Assurance)
- double arranged insulation displacement termination with integrated strain relief
- Koshiri-Security
- male connector with SMT termination
- female connectors with 90° cable outlet
- double-sided interlocking latches

Pitch	1.27 mm
No. of Pins	2 - 20 pins (single row) possible
Termination	SMT, IDC
Current rating (A)	up to 9.0 A per contact at 20 °C (2 pin version)
Temperature range	-40 °C to 150 °C
Automotive Standard	Developed based on VW75174 and USCAR-2
Wire cross section	IDC single wire 0.35 mm²

Configurations

MAJOR INDUSTRIES



1.
- Automotive (BMS, Headlight)



Products & Solutions

CONNECTORS

MiniBridge I MiniBridge Koshiri



THE CONNECTION TO COUNT ON: KEEPS MISALIGNMENT TO A MINIMUM.

- compact cable mating system for dense connector requirements
- straight and angled male terminal strips
- female terminal strips with 90° and 180° cable outlet
- variable wire diameters
- Koshiri reliability
- top-sided housing latch
- compliance to LV 214 specifications
- integrated retention clips

Pitch	1.27 mm
No. of Pins	2, 3, 4, 6, 8, 10, 12
Termination	SMT, IDC
Current rating (A)	up to 8.7 A per contact at 20 °C
Temperature range	-55 °C to 150 °C
Automotive Standard	LV214
Wire cross section	AWG 22 $\triangleq$ 0.35 mm², AWG 24 $\triangleq$ 0.22 mm², AWG 26 $\triangleq$ 0.14 mm²

Configurations

MAJOR INDUSTRIES



1.
- Automotive (Headlight, BMS and power electronics)
2.
- Medical

Products & Solutions

CONNECTORS

MaxiBridge



- BACKUP INCLUDED: DOUBLE LATCHES FOR HIGH-VIBRATION ENVIRONMENTS.**
- flexible and versatile
 - single and dual row versions
 - accommodates various cable cross sections
 - high retention force of the housing latching
 - double locking of spring contacts in the housing
 - shock and vibration resistant
 - versions with Koshiri-Security available
 - based on VW75174 and USCAR-2 requirements
 - high temperature resistance
 - reliable retention force on the PCB

Pitch	2.54 mm
No. of Pins	2, 3, 4, 5, 6, 8, 10, 2x5, 2x10
Termination	SMT, Crimp
Current rating (A)	up to 12 A per contact at 20 °C
Temperature range	-55 °C to 150 °C
Automotive Standard	Developed based on VW75174 and USCAR-2
Wire cross section	AWG 18, 20, 22, 24, 26 & metric 0.35 mm², 0.5 mm², 0.75 mm²

Configurations

Two small icons showing different MaxiBridge connector configurations: one with a cable and one with a PCB.

MAJOR INDUSTRIES



1. Automotive (BMS, Headlight)
2. Automation (PLC, DCS, Remote I/O, Drives)
3. Medical



Products & Solutions

CONNECTORS

SMC



- COPES WITH EVERYTHING: DEPENDABLE OPERATION IN HIGH-DEMAND ENVIRONMENTS.**
- comprehensive portfolio
 - reliable connections
 - robust and industry-capable
 - vibration and shock resistant
 - dual beam female contacts
 - gold-plated contacts
 - large operating temperature range
 - IDC cable connectors with AWG 30
 - high current rating
 - completely automatically processible

Pitch	1.27 mm
No. of Pins	12, 16, 20, 26, 32, 40, 50, 68, 80
Termination	SMT, Pressfit, IDC
Current rating (A)	up to 1.7 A per contact at 20 °C
Data transmission rate	up to 3 Gbit/s
Temperature range	-55 °C to 125 °C
Board-to-Board Height	8 - 20 mm 20 - 40 with adapter

Configurations

Four small icons showing different SMC connector configurations: two with cables and two with PCBs.

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Automotive (BMS and power electronics)
3. Transport
4. Medical

Products & Solutions

CONNECTORS

iBridge Ultra



- SAFETY FIRST: CUSTOM DESIGN FOR DEMANDING APPLICATIONS.**
- up to 8 A current rating per contact
 - secondary locking of the crimp contacts in the housing (TPA)
 - polarity reversal protection design
 - double-sided interlocking

Pitch	2.0 mm
No. of Pins	2, 3, 4, 5, 6, 8, 10, 12
Termination	male: SMT, Solder; female: Crimp
Current rating (A)	up to 8 A per contact at 20 °C
Temperature range	-40 °C to 100 °C, 1008 hrs at 100 °C (USCAR-2 T2)
Automotive Standard	Specifications are tested according to requirements of USCAR-2 (SMT male connectors only) and USCAR-21
Wire cross section	AWG 22 $\triangleq$ 0.35 mm ² , AWG 24 $\triangleq$ 0.22 mm ²

Configurations

Two small icons showing different configurations of the iBridge Ultra connector. The first shows a connector with a single wire attached. The second shows a connector with multiple wires attached.

MAJOR INDUSTRIES



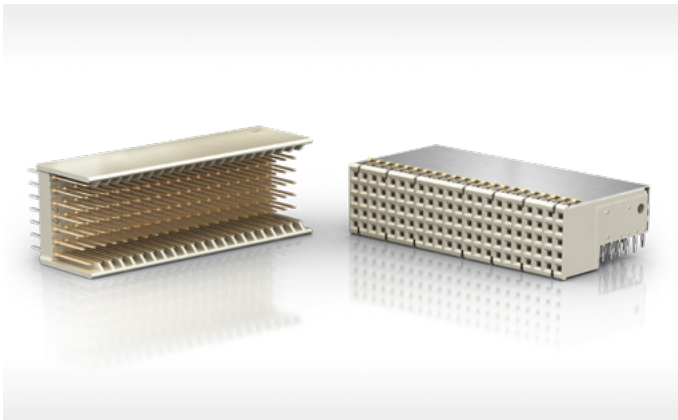
1. Automotive (Headlight, Battery Management System)
2. Tele- and Data-communication
3. Medical
4. Instrumentation



Products & Solutions

CONNECTORS

ERmet 2mm Hard Metric



- FLEXIBLE ERMET 2.0 MM HM CONNECTORS FOR UNPARALLELED PERFORMANCE.**
- pressfit technology
 - no soldering processes
 - industry standard connector system
 - for back plane applications
 - for hot-swap applications
 - shielded and unshielded versions
 - optional pin sizes and placement
 - diverse accessories
 - coding key
 - pre-alignment modules

Pitch	2.0 mm
No. of Pins	40 - 200
Termination	Pressfit
Current rating (A)	up to 1.5 A per contact at 20 °C
Temperature range	-55 °C to 125 °C
Data transmission rate	up to 2 Gbit/s
Standard/Spezifikation	IEC 61076-4-101, PCI, PXI, cPCI

Configurations

Three small icons showing different configurations of the ERmet 2mm Hard Metric connector. The first shows a connector with a single pin attached. The second shows a connector with multiple pins attached. The third shows a connector with a coding key.

MAJOR INDUSTRIES



1. Tele- and Data-communication
2. Instrumentation
3. Aerospace and Military
4. Transport

Products & Solutions

CONNECTORS

ERmet Power Module



OPTIMUM SUPPLEMENT FOR BACKPLANE DESIGNS WITH HIGH PERFORMANCE.

- pressfit technology
- no soldering processes
- for back plane applications
- for hot-swap applications
- supplement to ERmet 2.0 HM
- compatible with DIN 41612 connectors

Pitch	2.0 mm
No. of Pins	3, 5, 6, 7
Termination	Pressfit
Current rating (A)	up to 12.6 A per contact at 20 °C
Temperature range	-55 °C to 125 °C
Compatibility	ERmet 2.0 HM, ERmet ZD, DIN 41612
Features	different contact lengths

Configurations

A small diagram showing a cross-section of the connector's pressfit termination.

MAJOR INDUSTRIES



- 1. Tele- and Data-communication
- 2. Instrumentation
- 3. Aerospace and Military
- 4. Transport



Products & Solutions

CONNECTORS

ERmet ZD High-Speed



ERmet ZD CONNECTORS FOR HIGH DATA TRANSMISSION RATES.

- pressfit technology
- diverse accessories
- data rates of over 25 Gbit/s
- excellent signal integrity
- suitable for hot-swap applications
- any pin placement possible
- vibration and heat resistant
- guide features for reliable mating
- dual sided female contacts
- versions: ERmet ZD, ZDplus, ZDpro

Pitch	2.5 mm
No. of Pins	20, 30, 40, 45, 48, 60 contact pairs
Termination	Pressfit
Data transmission rate	up to 25+ Gbit/s
Temperature range	-55 °C to 125 °C
Current rating (A)	up to 0.9 A per contact at 20°C
Specification	ATCA, PCI, cPCI Express

Configurations

Three small diagrams showing different configurations of the ERmet ZD High-Speed connectors: a single pin, a dual pin, and a quad pin.

MAJOR INDUSTRIES



- 1. Tele- and Data-communication
- 2. Instrumentation
- 3. Aerospace and Military
- 4. Transport

Products & Solutions

CONNECTORS

Pre-Alignment Modules



- FOR SECURE PLUGGING IN NUMEROUS APPLICATIONS.
- matched to ERmet 2.0 and ZD
 - secure plugging
 - prevents damage
 - no PCB stresses
 - prevents incorrect plugging
 - enables quick assembly
 - coding options
 - electrical contact possible

PCB thickness	1.6 to 6 mm
Coding	ERmet 2.0 coding pieces
Termination	Screw type
Current rating (A)	up to 40 A per contact at 20 °C
Temperature range	-55 °C to 125 °C
Compatibility	ERmet 2.0 HM, ERmet ZD
Thread	M4, M5

Configurations

MAJOR INDUSTRIES



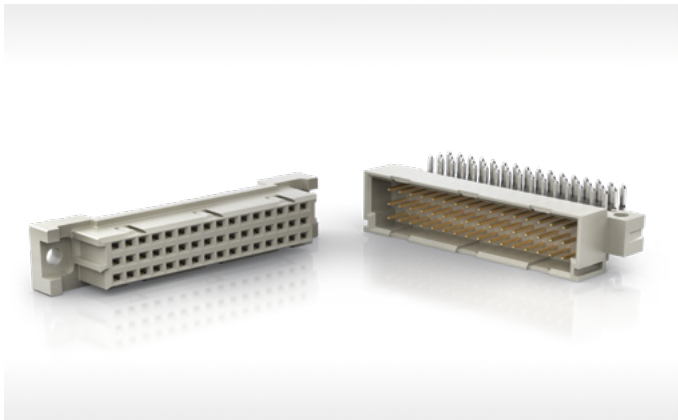
- 1. Tele- and Data-communication
- 2. Instrumentation
- 3. Aerospace and Military
- 4. Transport



Products & Solutions

CONNECTORS

DIN 41612 / IEC 60603-2 Signal and Power



- VARIOUS SIZES - ENABLING DIVERSE APPLICATION RANGES.
- conformance to standards
 - RoHS compliant
 - broad range of accessories
 - secure mating is guaranteed
 - dual beam female contacts
 - various connection technologies
 - partial assembly possible
 - tested mating system
 - robust contacts
 - up to 160 contacts

Pitch	Signal: 2.54 mm; Power: 5.08 mm bzw. 7.62 mm
No. of Pins	Signal: 6 - 160; Power: 2 - 15
Termination	Pressfit, Crimp, THR, Dip solder, Hand solder, Faston
Current rating (A)	Signal: up to 2 A; Power: up to 5.5 or 15 A p. contact (20 °C)
Temperature range	-55 °C to 125 °C
Standard	IEC 60603-2
Wire cross section	AWG 20 - 26, AWG 24 - 28

Configurations

MAJOR INDUSTRIES



- 1. Instrumentation
- 2. Transport
- 3. Aerospace and Military
- 4. Telecommunication

Products & Solutions

CONNECTORS

Power Taps



DEVELOPED ESPECIALLY FOR THE POWER SUPPLY ON THE PCB AND BACKPLANE.

- reliable and affordable power connection
- high flexibility
- various cable connections
- for commercially available cable lugs
- 90° and 45° angled connections
- various thread sizes
- English and metric threads
- flexible wire layouts
- assembly via pressfit or soldering

Pitch (Termination pins)	2.54 mm
No. of Pins	1
Termination	Pressfit, Dip solder
Current rating (A)	up to 40 A per contact at 20 °C
Temperature range	-55 °C to 125 °C
Termination pins	6, 10
Cable connection	M3, M4, 6-32 UNC, 8-32 UNC, Faston

Configurations

MAJOR INDUSTRIES



- 1. Automotive (BMS and power electronics)
- 2. Instrumentation



Products & Solutions

CONNECTORS

High Current- / Coax-Contacts



FOR NUMEROUS CONNECTOR SHAPES.

- flexible usage possibilities
- high-current contacts up to 40 A
- angled and straight variants
- high-frequency coax transmission

Pitch (Housing)	ERmet 2.0 HM: 7.5 mm DIN 41612: 7.62 mm
Impedance	50 / 75 Ohm
Termination	Hand solder, Solder, Crimp, Pressfit
Current rating (A)	up to 40 A per contact at 20 °C
Temperature range	-55 °C to 125 °C
Standard	DIN 41626
Frequency range	max. 3 GHz

Configurations

MAJOR INDUSTRIES



- 1. Tele- and Data-communication
- 2. Instrumentation
- 3. Aerospace and Military
- 4. Transport

Products & Solutions

CONNECTORS

PowerElements



- BURSTING WITH ENERGY: OUR HIGH-POWERED ELEMENTS SET THE TEMPO.**
- current carrying capacity up to 360 A (pressfit) | up to 200 A (SMT)
 - solidly resilient
 - fail-safe connections
 - no undesired short circuits due to anti-twist and touch protection
 - with and without alignment peg
 - fully automatic assembly possible
 - available in pressfit or SMT solder technology
 - shock- and vibration-proof

Pitch	2.54 mm
No. of Pins (Pressfit)	6, 8, 9, 10, 12, 16, 20, 25, 36
Termination	Pressfit, SMT
Current rating (A)	up to 10 A at 20 °C per pressfit pin up to 200 A at 20 °C for SMT versions
Temperature range	-40 °C to 135 °C
Standard	IEC 60352-5 (retention forces)
Thread	M2.5, M3, M4, M5, M6, M8, M10, M12

Configurations

MAJOR INDUSTRIES



1. Automotive (BMS and power electronics)
2. Automation (PLC, DCS, Remote I/O, Drives)
3. Medical



Products & Solutions

CONNECTORS

Modular Jacks



- HIGH PERFORMANCE CONNECTORS FOR COMMUNICATION APPLICATIONS.**
- compact shape
 - compliance with Ethernet standards
 - data rates in the Gigabit range
 - integrated filter components
 - shielding for high signal quality
 - angled and straight versions
 - integrated LED displays
 - RJ11 and RJ45 sizes
 - THT, THR, SMT termination
 - Power over Ethernet (PoE)

Pitch	Single-Port- and Multi-Port versions
Positions/ Contacts	6P-6C, 8P-8C, 6P-2C, 6P-4C, 8P-10C
Termination	SMT, THT, THR
Data transmission rate	Cat 3/4, 5, 5e
Temperature range	-40 °C to 70 °C (extended partially up to 85 °C)
Standard	IEC 60603-7
Configuration	RJ11, RJ45

Configurations

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Tele- and Data-communication
3. Instrumentation
4. Medical

Products & Solutions

CONNECTORS

M8 / M12 Circular Connectors



MODULAR M8 / M12 CIRCULAR CONNECTORS FOR MAXIMUM FLEXIBILITY.

- for signal, power and data transmission
- SMT connection technology
- various pin counts and codings
- shielded variants
- protection from dust and water
- compact sensor solutions
- automated processing
- large selection of accessories
- castable variants
- individual solutions

Pitch	-
No. of Pins (Pressfit)	3, 4, 5, 6, 8, 12, 17
Termination	IDC, SMT, THR, SMT/THR
Data transmission rate	D-cod. to 100 Mbit/s (Cat5), X-cod. to 10 Gbit/s (Cat6A)
Temperature range	-55 °C to 125 °C
Standard	IEC 61076-2-101, -104, -109
Interfaces	I/O, Field Bus, Ethernet, Power supply

Configurations

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Transport
3. Instrumentation



Products & Solutions

CONNECTORS

ERbic Field Bus Interface



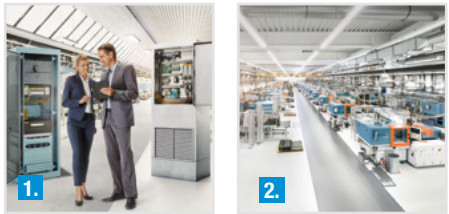
ERbic CONNECTORS FOR CAN BUS, PROFIBUS AND SAFETYBUS SYSTEMS.

- optional diagnostic interface
- metal housing available
- high interference resistance
- compact size
- as per fieldbus specification
- variable connection technology
- high strain relief
- brand labeling possible

Pitch	2.54 mm
No. of Pins (Pressfit)	9 pin D-Sub
Termination	screw terminal, spring clamp terminal, IDC
Data transmission rate	1 Mbit/s, 12 Mbit/s
Temperature range	-20 °C to 70 °C
Standard	Profibus, Profibus Ex i, CANbus, SafetyBUS p
Bus-Termination	Node, Termination, external switch

Configurations

MAJOR INDUSTRIES



1. Automation (PLC, DCS, Remote I/O, Drives)
2. Other applications (robotics)

Products & Solutions

HOUSINGS —

D-Sub and DIN Cable Housings



ROBUST CABLE HOUSINGS FOR RELIABLE I/O CONNECTIONS.

- compact design
- protection of plug and cable
- touch and dust protection
- captive individual parts
- numerous assembling accessories
- flexible cable outputs
- assembly-friendly
- simple to handle
- no special tool required
- robust, stable and vibration resistant

NUMEROUS APPLICATION POSSIBILITIES FOR ERNI CABLE HOUSINGS.

The cable plug housings from ERNI can be used for I/O connections of D-Sub and DIN 41612 / IEC 60603-2 connectors. Depending on the application and cable plug type used, they are available in various series. The sizes of the housings can vary depending on the pin count and number of contact rows of the connector families. Integrated shielding plates and metalized plastic designs are partly used to prevent electromagnetic interferences.

The two-shell plastic housings provide the right solutions regarding wiring in control cabinets, machines or electrical devices. The housings offer good protection of the plug and connectors from outer influences and have proven themselves in the field. Various latches, fastening options, codings and cable outlet options expand their area of use. In industrial automation they are used, for example, for bus connections or connections between I/O assemblies and the main board.

MAJOR INDUSTRIES



1. Transport
2. Automation (PLC, DCS, Remote I/O, Drives technology)
3. Instrumentation
4. Aerospace and Military



Products & Solutions

HOUSINGS —

Enclosures



ENCLOSURES FOR RELIABLE PROTECTION OF ALL ELECTRONICS.

- flexible assembly widths
- compact design
- optimum space utilization
- mounting-friendly structure
- non-touch protection
- robust and stable
- for DIN mounting rails
- fastening using latching clip
- also for wall mounting

A WIDE VARIETY OF APPLICATION POSSIBILITIES IN INDUSTRY.

Enclosures from ERNI are designed for fastening on DIN mounting rails (top-hat rails) and are available in different variants. The compact plastic housings are available in the IDG-A, IDG-B, LDG-A and LDG-S series in different geometries and sizes for numerous areas of application. Wall mounting of the electronics housing is also partially possible. Depending on the respective application, closed housings or those with ventilation slots can be used.

The enclosures can be used everywhere that electronics and other construction elements must be installed securely and protected in a housing. Since they are suitable for mounting on top-hat rails, they can be installed quickly and problem-free in control cabinets or systems and machines. Typical application areas are machine and system construction and industrial automation. You will find them used in robust industrial housing for example in machine controls or in robotics.

MAJOR INDUSTRIES



1. Industrial Automation
2. Other applications (Robotics, building automation, Mechanical and plant engineering, conveyor technology)

Products & Solutions

CABLE ASSEMBLIES

Cable assemblies with ERNI-Connectors



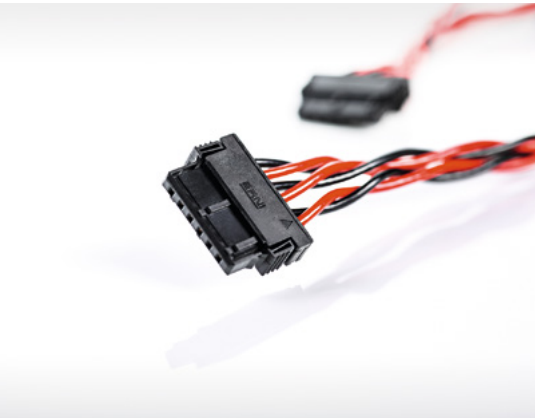
- MANUFACTURED FOR PERFORMANCE RELIABILITY.**
- Single sourced cable assemblies and connectors
 - Quality through full process validation
 - Modern production equipment
 - Specialized connector systems
 - Good price to performance ratio
 - International Automotive Task Force (IATF) certified production

EXTENSIVE SERVICES IN THE FIELD OF CABLE ASSEMBLY.

ERNI offers a comprehensive range of finished cable assemblies to meet your individual requirements including trimmed cables, crimped contact terminals, and complete wire harnesses. Our focus is on assembling cables utilizing solder-free connection technologies of Insulation Displacement Connections (IDC) and wire crimping. We assemble ribbon wire and discrete wire assemblies with diameters from 0.05 to 1.0 mm² [18 – 30 AWG] and offer fully automated, semi-automatic, and manual cable assembly depending on your need of prototypes, pilot series, or large-scale production.

CUSTOM CABLE ASSEMBLY SOLUTIONS BY THE TECHNOLOGICAL LEADER.

Our cable assemblies are produced according to specific customer requirements and manufactured to high quality standards. Customers receive cable assemblies and mating connectors suitable for use in many demanding applications.



4.

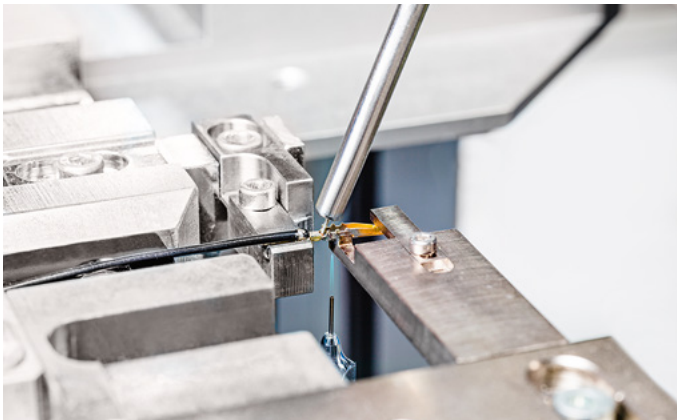
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Products & Solutions

CABLE ASSEMBLIES



Cable assemblies with ERNI-Connectors

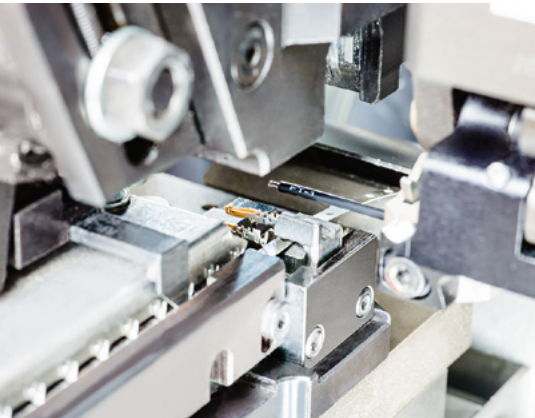


- CUSTOM CABLE ASSEMBLY WITH OUTSTANDING QUALITY.**
- We create cable assemblies to meet the needs and specifications of our customers by adding accessories and harness mounting features, cutting wire to the desired lengths, and assembling contacts into connector insulators. We also add braided wire sleeves, fold ribbon cables, and print the finished products with custom labels.

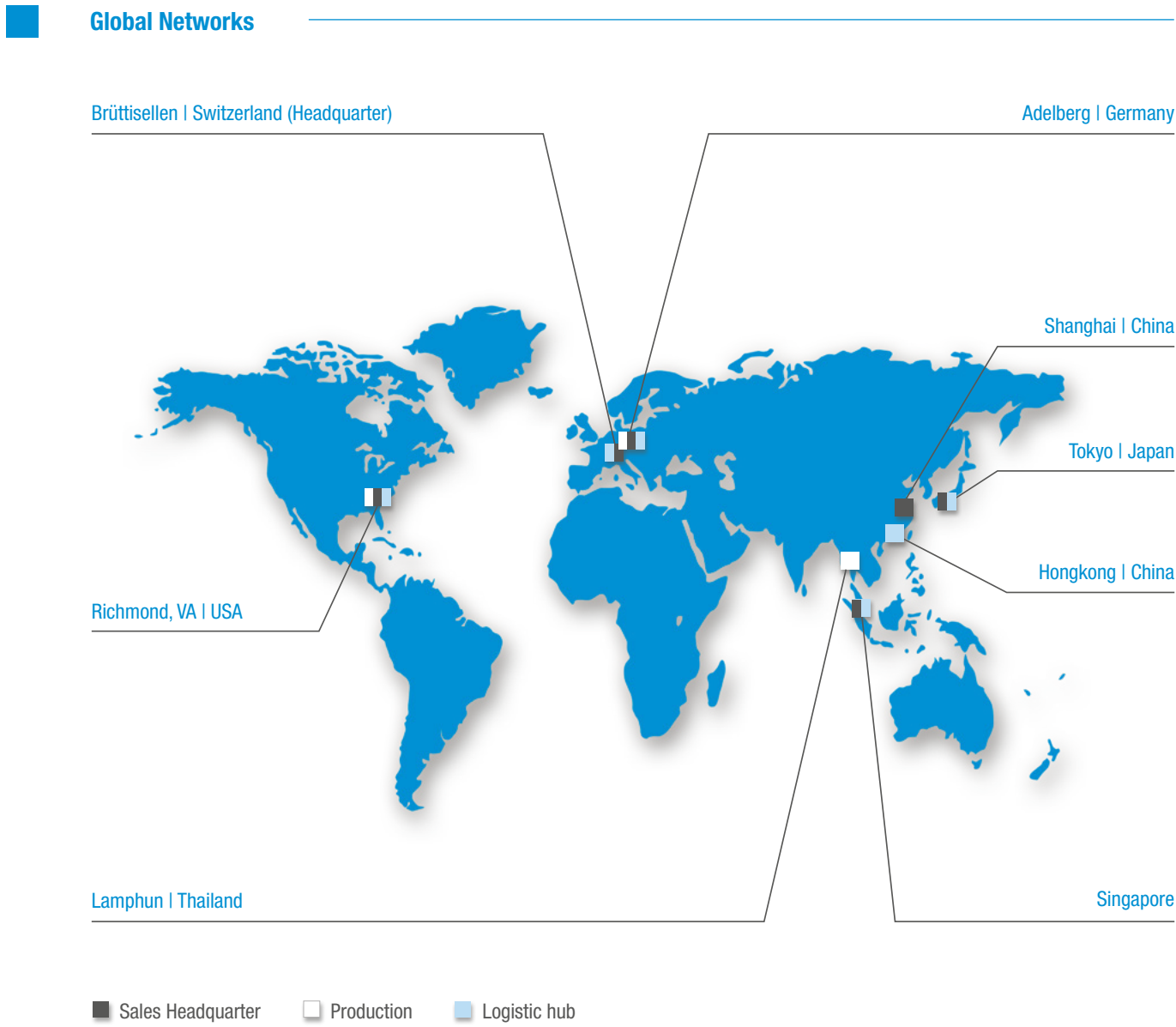
Critical assembly features are validated during production. After each manufacturing step we electronically record quality data measurements and assessments. Electrical tests include continuity, high-voltage, reverse polarity, and insulation testing. ERNI cable assemblies are IATF and UL certified.

APPLICATIONS FOR OUR CABLE PRODUCTION.

ERNI's cable assemblies are used in many applications such as automation, data, drive systems, medical, and aerospace technologies. One of our key areas is manufacturing for the automotive industry: Wire harnesses and custom cable assemblies are used in headlights, electro-mobility controller applications and in battery management.



5.





Find your correct contact person
on **erni.com/locations**