PRODUCTS & SOLUTIONS
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, E33028

Environment Management Certifications:
- DIN ISO 14001:2015 TÜV DE - Registration No. 01 104 0120245

Product Certifications:
- USCAR for several connectors
- Connectors following VW75174
- SolarEdge certification for several connectors
- UL Underwriter Laboratories Inc., file No. E472303, E146511, E477501, E256207, E478662

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Products & Solutions

**INDUSTRIES**

**AUTOMOTIVE**

Battery management systems & power electronics
Headlights

**AUTOMATION**

PLC, DCS, Remote I/O
Drives technology

**OTHER MARKETS**

IoT, Aerospace, Medical, Instrumentation, Communication, Transport, Energy
## OVERVIEW PRODUCTS AND APPLICATIONS

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<th>12 / 13</th>
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</table>

Legend:  
- **very suitable**  
- **very suitable (for special applications)**  
- **well suited**
## OVERVIEW PRODUCTS AND APPLICATIONS

### BOARD-TO-BOARD INTERCONNECT SOLUTIONS

<table>
<thead>
<tr>
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<td>Pin count</td>
<td>6, 9, 10, 12, 14, 50, 54</td>
<td>9, 10, 12, 14, 50, 52, 79, 91, 113</td>
<td>5</td>
<td>7, 9, 18, 20, 32</td>
<td>2, 3, 4, 6</td>
<td>12 - 80</td>
<td>40 - 100</td>
<td>20, 30, 40, 45, 46, 60 pairs</td>
<td>6 - 160</td>
<td>2 - 15</td>
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<tr>
<td>Number of mating rows</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
<td>1, 2</td>
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<tr>
<td>Pitch (mm)</td>
<td>0.8</td>
<td>0.8</td>
<td>1.0</td>
<td>2.0</td>
<td>1.27</td>
<td>1.27</td>
<td>2.0</td>
<td>2.5 x 4.5 (pair-to-pair)</td>
<td>2.54</td>
<td>5.08, 7.62</td>
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<tr>
<td>Board-to-board height</td>
<td>3, 5</td>
<td>5 - 19</td>
<td>5 - 20</td>
<td>5 - 20</td>
<td>8 - 20, 20 - 40 with Adapter</td>
<td>15 - 26.5 (including 1.5mm wipe length)</td>
<td>15, 18</td>
<td>16.8</td>
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<td>Current rating (A) per contact at 20°C</td>
<td>2.7</td>
<td>2.3</td>
<td>1</td>
<td>up to 18</td>
<td>up to 15</td>
<td>up to 4.8</td>
<td>up to 1.7</td>
<td>1.5</td>
<td>0.9</td>
<td>Up to 8 A when using shielding (4-10 pin)</td>
<td>2 up to 15</td>
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<tr>
<td>Data rate (Gbit/s)</td>
<td>up to 3</td>
<td>3</td>
<td>25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>10 - 25+</td>
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<td>Termination</td>
<td>SMT</td>
<td>SMT</td>
<td>SMT</td>
<td>SMT</td>
<td>Pressfit</td>
<td>Pressfit</td>
<td>Pressfit, Solder, THR</td>
<td>Pressfit, Solder</td>
<td>Pressfit, Solder</td>
<td>Pressfit, Solder, THR, Nut</td>
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<td>250</td>
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<td>400, 500</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Optional</td>
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### WIRE-TO-BOARD & I/O INTERCONNECT SOLUTIONS

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<td>16, 26, 40, 50</td>
<td>2, 4, 5, 6, 8, 10, 12, 14</td>
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<td>1</td>
<td>30, 48, 96, 160</td>
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<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Pitch (mm)</td>
<td>0.8</td>
<td>1.27</td>
<td>1.27</td>
<td>1.27</td>
<td>2.0</td>
<td>2.54</td>
<td>-</td>
<td>-</td>
<td>2.54</td>
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<tr>
<td>Current rating (A) per contact at 20°C</td>
<td>2.3</td>
<td>up to 9.0 (2 pin)</td>
<td>8.7</td>
<td>1.7</td>
<td>up to 8.0</td>
<td>12</td>
<td>40</td>
<td>up to 10 per press-fit pin</td>
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<tr>
<td>Data rate (Gbit/s)</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>&lt; 1</td>
<td>1</td>
</tr>
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<td>PCB termination</td>
<td>SMT</td>
<td>SMT</td>
<td>SMT</td>
<td>SMT</td>
<td>Pressefit</td>
<td>Solder, SMT, SMT, Pressefit</td>
<td>Pressfit, Solder</td>
<td>Pressfit, Solder, THR</td>
<td>Solder, SMT, SMT, THR</td>
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<td>Cable termination</td>
<td>IDC</td>
<td>IDC</td>
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<td>IDC</td>
<td>Crimp</td>
<td>Crimp</td>
<td>Screw, Nut</td>
<td>Crimp, Faston</td>
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<td>100</td>
<td>500</td>
<td>500</td>
<td>20</td>
<td>500</td>
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<td>400</td>
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<td>Wire cross section *</td>
<td>AWG 34</td>
<td>0.35 mm²</td>
<td>AWG 22, 24, 26</td>
<td>AWG 30</td>
<td>AWG 22, 24</td>
<td>AWG 18, 22, 24, 26</td>
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<td>AWG 20, 26, 28</td>
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<td>PCB pegs</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Optional</td>
<td>Yes</td>
<td>No</td>
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* AWG 18 & 0.08 mm², AWG 20 & 0.06 mm², AWG 22 & 0.35 mm², AWG 24 & 0.22 mm², AWG 26 & 0.14 mm², AWG 30 & 0.06 mm²
### 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
- Reliably high contact force
- Reliable connections
- High mating reliability
- Single and double row versions
- Various board-to-board heights

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

### 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

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

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

---

**MicroStac**

**MicroCon**

---

**MAJOR INDUSTRIES**

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

**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

**Configurations**

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<td>No. of Pins</td>
<td>5 (MS Power Module)</td>
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<tr>
<td>Termination</td>
<td>SMT, SMT/THR, THR (MS Power Module)</td>
</tr>
<tr>
<td>Current rating (A)</td>
<td>Up to 18 A per contact at 20 °C (MS Power Module)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-55 °C to 125 °C</td>
</tr>
<tr>
<td>Board-to-Board Height</td>
<td>5 - 20 mm (MS Power Module)</td>
</tr>
</tbody>
</table>

**MAJOR INDUSTRIES**

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

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

### MiniBridge | 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

<table>
<thead>
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<th>Pitch</th>
<th>1.27 mm</th>
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<tbody>
<tr>
<td>No. of Pins</td>
<td>2, 3, 4, 6, 8, 10, 12</td>
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<tr>
<td>Termination</td>
<td>SMT, IDC</td>
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<tr>
<td>Current rating (A)</td>
<td>up to 8.7 A per contact at 20 °C</td>
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<td>Temperature range</td>
<td>-55 °C to 150 °C</td>
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<td>Automotive Standard</td>
<td>LV214</td>
</tr>
<tr>
<td>Wire cross section</td>
<td>AWG 22 ± 0.35 mm², AWG 24 ± 0.22 mm², AWG 26 ± 0.14 mm²</td>
</tr>
</tbody>
</table>

### MAJOR INDUSTRIES

1. Automotive (BMS, Headlight)
2. Medical

---

**CONNECTORS**

**Products & Solutions**
**MaxiBridge**

**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

**SMC**

**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

**Major Industries**

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

**Connector Configurations**

**MaxiBridge**

- **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

**SMC**

- **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

**Major Industries**

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

**iBridge Ultra**

**Configurations**
- **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 ± 0.35 mm², AWG 24 ± 0.22 mm²

**MAJOR INDUSTRIES**

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

**ERmet 2mm Hard Metric**

**Configurations**
- **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/Specification:** IEC 61076-4-101, PCI, PXI, cPCI

**MAJOR INDUSTRIES**

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

OPTIMUM SUPPLEMENT FOR BACKPLANE DESIGNS WITH HIGH PERFORMANCE.
- pressfit technology
- no soldering processes
- for backplane applications
- for hot-swap applications
- supplement to ERmet 2.0 HM
- compatible with DIN 41612 connectors

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

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

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

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

MAJOR INDUSTRIES
1. Tele- and Data-communication
2. Instrumentation
3. Aerospace and Military
4. Transport
Pre-Aligned 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

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

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

MAJOR INDUSTRIES
1. Instrumentation
2. Transport
3. Aerospace and Military
4. Telecommunication
### 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

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

**Major Industries**
1. Automotive (BMS and power electronics)
2. Instrumentation

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### 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

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

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

<table>
<thead>
<tr>
<th>No. of Pins (Pressfit)</th>
<th>Termination</th>
<th>Current rating (A)</th>
<th>Temperature range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0, 1.2, 1.4, 1.6, 2.0, 2.5, 3.0</td>
<td>Pressfit, SMT</td>
<td>up to 10 A at 20 °C</td>
<td>-40 °C to 125 °C</td>
</tr>
<tr>
<td>2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0</td>
<td>Pressfit, SMT</td>
<td>up to 200 A at 20 °C</td>
<td>-40 °C to 125 °C</td>
</tr>
<tr>
<td>2.54 mm</td>
<td>SMT, THT, THR</td>
<td>up to 10 A at 20 °C</td>
<td>-40 °C to 125 °C</td>
</tr>
<tr>
<td>3.96 mm</td>
<td>SMT, THT, THR</td>
<td>up to 200 A at 20 °C</td>
<td>-40 °C to 125 °C</td>
</tr>
<tr>
<td>6.35 mm</td>
<td>SMT, THT, THR</td>
<td>up to 300 A at 20 °C</td>
<td>-40 °C to 125 °C</td>
</tr>
</tbody>
</table>

**MAJOR INDUSTRIES**

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

**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**

<table>
<thead>
<tr>
<th>Positions/ Contacts</th>
<th>Termination</th>
<th>Data transmission rate</th>
<th>Temperature range</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Port- and Multi-Port versions</td>
<td>SMT, THT, THR</td>
<td>Cat 3/4, 5, 5e</td>
<td>-40 °C to 70 °C</td>
<td>IEC 60603-7</td>
</tr>
<tr>
<td>6P-6C, 8P-8C, 6P-2C, 6P-4C, 8P-10C</td>
<td>SMT, THT, THR</td>
<td>Cat 3/4, 5, 5e</td>
<td>-40 °C to 70 °C</td>
<td>IEC 60603-7</td>
</tr>
<tr>
<td>6P-8C, 8P-10C</td>
<td>SMT, THT, THR</td>
<td>Cat 3/4, 5, 5e</td>
<td>-40 °C to 70 °C</td>
<td>IEC 60603-7</td>
</tr>
</tbody>
</table>

**MAJOR INDUSTRIES**

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

<table>
<thead>
<tr>
<th>Pitch</th>
<th>No. of Pins (Pressfit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.54 mm</td>
<td>9 pin D-Sub</td>
</tr>
</tbody>
</table>

| 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 |
| Interfaces | Node, Termination, external switch |

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

<table>
<thead>
<tr>
<th>Pitch</th>
<th>2.54 mm</th>
</tr>
</thead>
</table>

| 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 |
| Interfaces | Node, Termination, external switch |

MAJOR INDUSTRIES

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

Other applications (robotics)
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 IO, Drives technology)
3. Instrumentation
4. Aerospace and Military

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)
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 TECHNOCAL 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.

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.
ERNI GROUP

Global Networks

Brüttisellen | Switzerland (Headquarters)
Adelberg | Germany
Richmond, VA | USA
Tokyo | Japan
Shanghai | China
Singapore
Lamphun | Thailand

Sales Headquarters  Production  Logistic hub