



Distribución de componentes
eléctricos y electrónicos

Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
ermec@ermec.com
www.ermec.com



Productnews 2013

erni.com



ERMEC, S.L. BARCELONA
C/ Francesc Teixidó, 22
E-08918 Badalona
(Spain)

Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
info@ermec.com
www.ermec.com

ERMEC, S.L. MADRID
C/ Sagasta, 8, 1ª planta
E-28004 Madrid
(Spain)

PORTUGAL
portugal@ermec.com
BILBAO
bilbao@ermec.com

MicroCon pin counts



The modular tooling used for the MicroCon housings, allows ERNI Electronics to provide pin counts from 12 - 140 for Board-to-Board connectors within 6 weeks from receipt of order. A unique feature for this miniaturized device size is the double-sided spring contact. The reliable and high quality spring contacts are based on a proven and patented principle, which ERNI Electronics scaled down for smaller dimensions.

- Pitch: 0,8 mm
- Number of pins: 12 - 140
- termination: SMT, IDC
- Board-to-Board Height: 5-10 mm
- applications: mezzanine, orthogonal, co-planar, cable connector
- Current rating: up to 2,3 A per contact

MaxiBridge double-row



ERNI is expanding the MaxiBridge cable connector system for a double row version. The new 20-pin connector with a current carrying capacity of up to 12 A per contact on 2.54 mm grid is excellent for heavy-duty and space-saving connections between circuit boards and external devices. The straight and angled male connector is fitted with SMT termination. The female connector with 180° outgoing cable unit has corresponding contact chambers for crimp contacts. Cable cross sections of AWG 16 to AWG 26 can be processed. Among the typical application areas there are different industries like automotive, telecommunications, industrial and medical technology.

- Pitch: 2,54 mm
- Number of pins: 2x10
- current carrying capacity per contact: up to 12 A
- Connection: Male connector SMT, Female connector crimp
- Single stranded wires AWG 16, 18, 20, 22, 24, 26
- Straight and angled male connector
- Coplanarity of the male contacts including solder clips < 0.1 mm
- Female connector with 180 ° outgoing cable
- Dual locking of crimp contacts
- 4 colored housing codes
- Tough locking of male and female connector

M12 - 90° angled



This new development is an innovative product that never existed before. It completes the ERNI M12 connector range with a M12 male connector which targets specially the sensor industry, where mostly one single male connector is used for a device. To save costs and ensure high quality levels, the connector can be fully handled within a standard SMT assembly line.

- extremely short version 14 mm length
- specially designed for M12 sensor pipe
- front mounting of final assembled PCB into the sensor pipe
- different sealing options
- 360° shield ring option which makes contact to the sensor pipe
- rear mounting option on request
- early mate last break option for pin 5

ERmet ZDplus Male



The new ERmet ZDplus connector pairs feature the double data rate of the already proven ERmet ZD connector. Thereby the familiar reliability and proven mechanical stability of the connector is not neglected. Optimized pressfit terminations and the combination with the already known ERmet ZDplus female connectors, allow data rates of up to 20 GBit/s. Due to the kept mating face, the ERmet ZDplus male connectors are compatible with the ERmet ZD female connectors.

- Pitch: 2,5 x 1,5 mm
- Number of pins: 30 & 40 differential pairs
- Termination: pressfit
- Data rate: up to 20 GBit/s
- Applications: rightangled
- Impedance: 100 Ω



ERMEC, S.L. BARCELONA
C/ Francesc Teixidó, 22
E-08918 Badalona
(Spain)

Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
info@ermec.com
www.ermec.com

ERMEC, S.L. MADRID
C/ Sagasta, 8, 1ª planta
E-28004 Madrid
(Spain)

PORTUGAL
portugal@ermec.com
BILBAO
bilbao@ermec.com

Power Elements



The first time power elements are available with a combination of flexible and solid fit zones. While the solid press-fit zone is used for receiving the torque and secure mounting, the flexible press-fit zone ensures an optimal power transmission. In addition, ERNI provides massive press-fit and soldering power elements. Here are various sizes and connection types available.

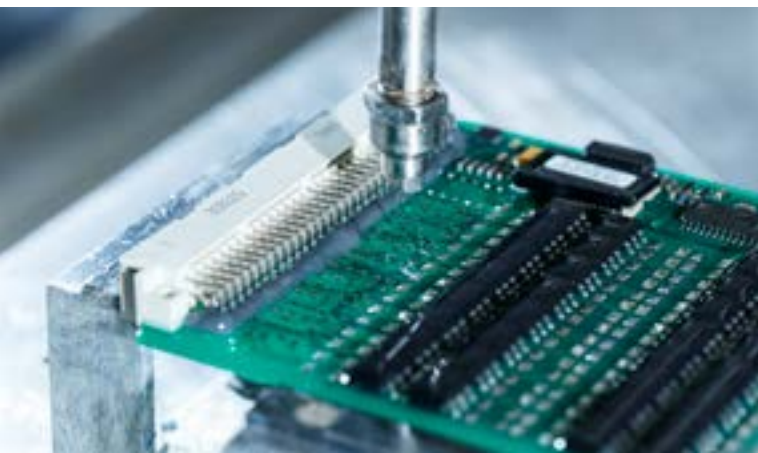
- Versions: with external thread, with internal thread, angled
- Available thread sizes: M3, M4, M5, M6, M8, M10
- Termination: pressfit, THT
- Material: brass
- Applications: power boards, central supply, backplanes, etc.
- Current rating: up to 400 A

EMS - Boundary Scan Test



The increasing complexity of electronic assemblies combined with the constantly advancing miniaturization of the electronic components make the testing of assemblies using conventional testing methods increasingly difficult. With JTAG/boundary scan (based on IEEE standard 1149.1), ERNI Electronic Solutions offers an efficient testing method that tests within the circuit similar to the in-circuit test and detects the fault location - even under BGAs. The connection of the assembly to be tested is performed solely via four control lines which connect the ICs on the assembly to one another in series. It is sufficient for the individual ICs to be compatible with boundary scanning and the required signal connections to be taken into account in the layout. By avoiding complex needle bed adapters and thanks to the time-saving creation of the test program using a software tool, prototypes can also be tested and put into operation very quickly.

EMS - Protective coating of electronic assemblies



Increasing requirements for the quality, reliability and operating life of electronic assemblies as well as a growing packing density of the components make a protective coating more and more important. Constructed assemblies can be protected against moisture, dust, dirt, contamination and mechanical loads by means of special coating processes in order to prevent a functional impairment.

ERNI Electronic Solutions reacts to this trend and is expanding the portfolio of services with the introduction of 3 coating processes. When selecting the process, we made a point of avoiding complex manual masking work - as is often common with spraying and immersion processes.

Fluoropolymer coating with Novec EGC-1700

- Protective layer thickness approx. 1 μm
- Complete immersion of the assembly in the coating bath without masking off metallic contact surfaces
- In the event of contact, the protective layer is pierced
- Assemblies can be repaired following coating



Selective thin film coating with Peters

SL1307-FLZ

- Fully automated lacquer curtain coating process
- Individual programming of the surfaces to be coated (select coat process)
- Fluorescent protective layer for simplifying the optical inspection

Selective thick film coating with Bectron

PK4340

- Protective layer thicknesses up to approx. 2 mm
- Additional sightproofing and protection against contact
- Secure application of „boundaries“ that can then be filled with pourable lacquers (e.g. Peters SL1307-FLZ) (dam & fill process)



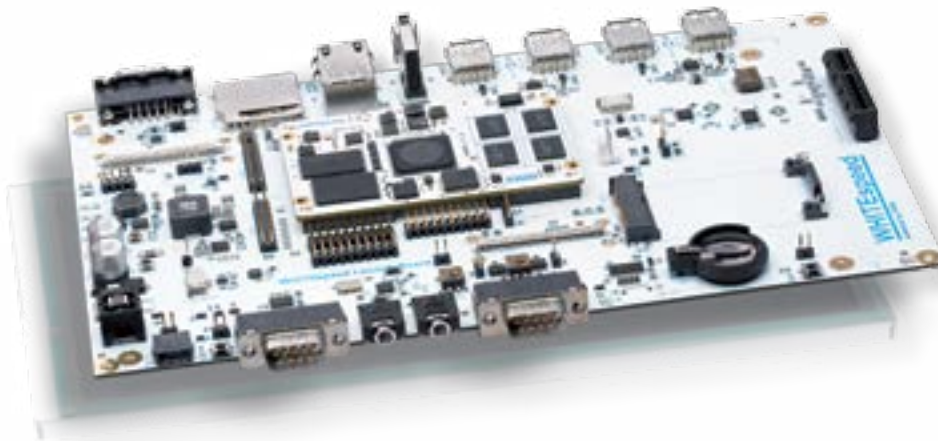
ERMEC, S.L. BARCELONA
C/ Francesc Teixidó, 22
E-08918 Badalona
(Spain)

Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
info@ermec.com
www.ermec.com

ERMEC, S.L. MADRID
C/ Sagasta, 8, 1ª planta
E-28004 Madrid
(Spain)

PORTUGAL
portugal@ermec.com
BILBAO
bilbao@ermec.com

WHITEspeed/ Computer on Module



**TOUGH.
FAST.
WHITE.**

ERNI WHITEspeed is a powerful, reliable and space-saving embedded computer. The portfolio comprises a WHITEspeed family of pin-compatible ARM-based mezzanine modules, which differentiate in terms of the CPU performance (clock rate, number of cores, coprocessors) and I/Os and memory capacity. In addition, a fully equipped, adaptable baseboard is available, which can be supplied also with an optional display.

On a credit card format (85 mm x 55 mm), the new mezzanine boards offer a powerful i.MX537 CPU from Freescale with an ARM Cortex-A8 core. To permit high-speed and reliable connection to the baseboard and I/Os, two-row 50-pin MicroSpeed connectors are available. The MicroSpeed connectors are characterised by the proven dual-leaf spring contact and the effective shielding. This allows high data rates (up to 10 GBit/s)

to be transmitted reliably. The on-board memories include DDR3-RAM (1 to 2 GB), reliable NOR flash (64 to 256 MB) for the boot code, NAND flash (2 to 4 GB) and I2C-EEPROM with up to 128 kB for the configuration data. The CPUs also offer comprehensive power management functions. For the product launch, Linux support is provided by a board support package (BSP).

With the implementation of the new WHITEspeed interface standard, ERNI is in particular addressing applications in harsh and demanding industrial environments such as in the field of transport, heavy engineering and automation exposed to high shock and vibration loads.



ERMEC, S.L. BARCELONA
C/ Francesc Teixidó, 22
E-08918 Badalona
(Spain)

Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
info@ermec.com
www.ermec.com

ERMEC, S.L. MADRID
C/ Sagasta, 8, 1ª planta
E-28004 Madrid
(Spain)

PORTUGAL
portugal@ermec.com
BILBAO
bilbao@ermec.com