



ERNI MicroCon Connector

TE Connectivity's (TE) dual-row MicroCon connector with 0.8 mm pitch is ideal for industrial applications such as drives, robots, automation controls, automated guided vehicle, or other warehouse equipment. The connector combines high pin-count of up to 100 pins with highly miniaturized design, especially the small length.

The portfolio allows a high design freedom: 180° and 90° orientation, board-to-board distances from 5 mm to 19 mm, pin count from 12 – 100 and customized as well as configurable cable assembly offerings. These cable assemblies use ribbon cable with a size of AWG 34 - with that, the cable assemblies are very well prepared for miniaturized applications which nevertheless have high requirements.

Robustness and reliability are key: reinforced sidewalls of the male connector come along with coding and solder clips which supports a high degree of robustness. Blind-mate guide alignments with increased catch range helps ensure more secure mating. Dual-beam female contact and low contact resistance are key for high contact reliability. The wipe length of the contacts provides a reliable mechanical connection with tolerance compensation despite the small pitch of 0.8 mm. Also, the cable assembly comes with an integrated locking lever.

BENEFITS

- Excellent fit for small but demanding applications
- High robustness and reliability helps minimize time required for mating and inspection in production and helps avoid signal interruptions / minimizes failures in the application
- High design flexibility due to breadth of portfolio of this space-saving connector
- Customized as well as configurable cables available

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FEATURES

- Excellent electrical and mechanical performance combined with high density connector
- Board-to-board portfolio in different configurations (straight and angled), different heights and different pin counts available
- Board-to-wire portfolio available with AWG 34

APPLICATIONS

- Automation controls
- Automation sensors
- Robotics
- Warehouse automation

MECHANICAL

- Pitch: 0.8 mm
- No of pins: distance needed between 12 - 100 possible
- Surface Mount Technology (SMT) termination
- Climate category: 55 / 125 / 56
- Operating temperature: -55 / 125 ° C
- Vibration, sine: 10 - 2000 Hz
- Contact disturbance: <1 micro second
- Shock half sine: 50 g
- Mechanical operation: >500 mating cycles
- Insertion and withdrawal force: typical value 0.5 N per contact
- Coplanarity <0.1 mm

PRODUCT INFORMATION

Part number	Part description
294133-E	Male - 12 pin - vertical - 1 mm
454927-E	Male - 16 pin - vertical - 1 mm
454928-E	Male - 16 pin - vertical - 2 mm
294136-E	Male - 26 pin - vertical - 1 mm
294148-E	Male - 26 pin - vertical - 2 mm
294149-E	Male - 32 pin - vertical - 2 mm

ELECTRICAL

- Current rating per contact: upto 2.3 A at 20 ° C
- Data rate: up to 3 Gbit/s
- Dielectric strength: contact - contact 500 V
- Contact resistance: <35 m ohms
- Insulation resistance: >100 M ohms

MATERIALS

- Housing material
 - Insulation body: Liquid Crystal Polymer (LCP)
 - Polyamid (PA)
 - UL94 V-0 flammability resistance
- Contact material
 - Copper alloy base material
 - Gold plated mating area
 - Termination area: Sn

STANDARDS

- DIN EN 60068-1
- IEC 60721-3-1
- JDEC-J-STD-020
- IEC 60664
- IEC 60112
- IEC 60512
- IEC 60512-5-2
- RoHS compliant

Part number	Part description
294001-E	Female - 16 pin - vertical - 4 mm
454925-E	Female - 16 pin - vertical - 6 mm
454926-E	Female - 16 pin - vertical - 8 mm
294003-E	Female - 26 pin - vertical - 4 mm
294015-E	Female - 26 pin - vertical - 6 mm
294027-E	Female - 26 pin - vertical - 8 mm

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PRODUCT INFORMATION

Part number	Part description	Part number	Part description
294138-E	Male - 40 pin - vertical - 1 mm	294028-E	Female - 32 pin - vertical - 8 mm
294150-E	Male - 40 pin - vertical - 2 mm	294005-E	Female - 40 pin - vertical - 4 mm
484619-E	Male - 40 pin - vertical - 9 mm	294017-E	Female - 40 pin - vertical - 6 mm
484618-E	Male - 40 pin - vertical - 10 mm	294029-E	Female - 40 pin - vertical - 8 mm
294139-E	Male - 50 pin - vertical - 1 mm	294006-E	Female - 50 pin - vertical - 4 mm
294151-E	Male - 50 pin - vertical - 2 mm	294031-E	Female - 68 pin - vertical - 8 mm
294152-E	Male - 68 pin - vertical - 2 mm	294008-E	Female - 80 pin - vertical - 4 mm
294141-E	Male - 80 pin - vertical - 1 mm	294020-E	Female - 80 pin - vertical - 6 mm
294153-E	Male - 80 pin - vertical - 2 mm	294032-E	Female - 80 pin - vertical - 8 mm
294142-E	Male - 100 pin - vertical - 1 mm	294009-E	Female - 100 pin - vertical - 4 mm
		294251-E	Female - 12 pin - angled
		294252-E	Female - 16 pin - angled
		294254-E	Female - 26 pin - angled
		294256-E	Female - 40 pin - angled
		294257-E	Female - 50 pin - angled
		294259-E	Female - 80 pin - angled

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