

MicroBridge®

for Automotive-Applications



Full-scale MicroBridge Male Connector 6 Pin

ED. 02 | 08.2017
Catalog E 074671

MicroBridge - for Automotive-Applications

MODULAR CONNECTORS

GENERAL



We have consistently fulfilled the requirements of our customers from the automotive sector through the MicroBridge product group. The cable-to-board connector was developed based on the LV214 and USCAR automotive test specifications.

MicroBridge meets the high requirements of the automotive sector, especially in terms of connection reliability. Koshiri security and the optionally available electrical CPA (Connector Position Assurance) guarantee secure and proper connection. Despite the compact 1.27 mm pitch, the MicroBridge is extremely robust and withstands the vibrations in vehicles thanks to double-sided interlocking. The compact design is perfect for use in compact installation spaces.

The high temperature resistance of up to 150°C allows the connectors to be used in areas exposed to demanding temperature conditions, e.g. close to

LEDs in the headlights.

The MicroBridge female connectors will be available with IDC and crimp terminations. The crimp contacts in the female connector housing feature primary and secondary interlocking. The single-row IDC female connector is available with a 90° and 180° cable outlet, the two-row version with a 180° cable outlet. The male connector designed for SMT is available as both a straight and angled version as well as single and two-row versions. Thanks to their modular design, female connectors can be mated with their male counterparts having the same number of pins irrespective of the termination technique (IDC or crimp).

Color and mechanical coding for every pin count makes it easier to allocate connectors and prevent improper connection.

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CONCEPT

FEATURES

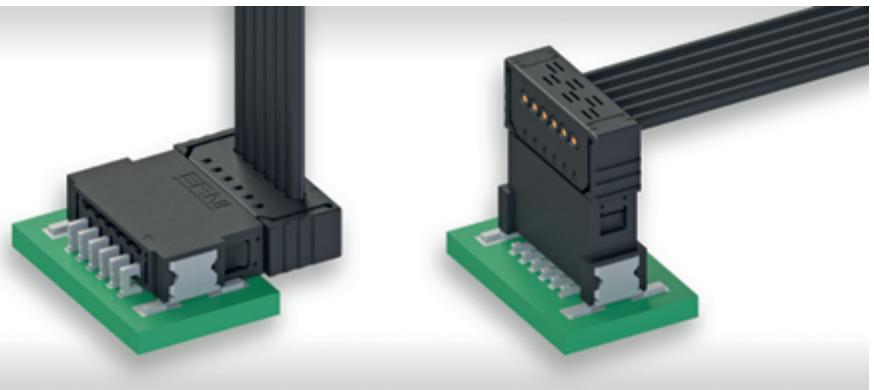
Pitch	1.27 mm
No. of pins	2-20 pin (single-row), 4-40 pin (dual-row)
Current rating per contact	up to 8.5 A (depends on cable cross section)
Operating voltage	up to 70 VAC/DC
Temperature range	- 55 °C to 150 °C
Termination technology	Male connectors SMT, female connectors crimp or IDC
Cables	Crimp discrete wire 0.13 mm ² – 0.17 mm ² IDC discrete wire 0.13 mm ² – 0.35 mm ² IDC flat ribbon cable 0.13 mm ² – 0.22 mm ²
Connectors	Single-row SMT male connectors, vertical or right angle Dual-row SMT male connectors, vertical or right angle Single-row IDC female connectors with 90° or 180° cable outlet Single-row crimp female connectors with 180° cable outlet Dual-row crimp or IDC female connectors with 180° cable outlet
Coding/color	black (blue, green, red on request)
Automotive standard	developed based on the LV214 and USCAR automotive test specifications

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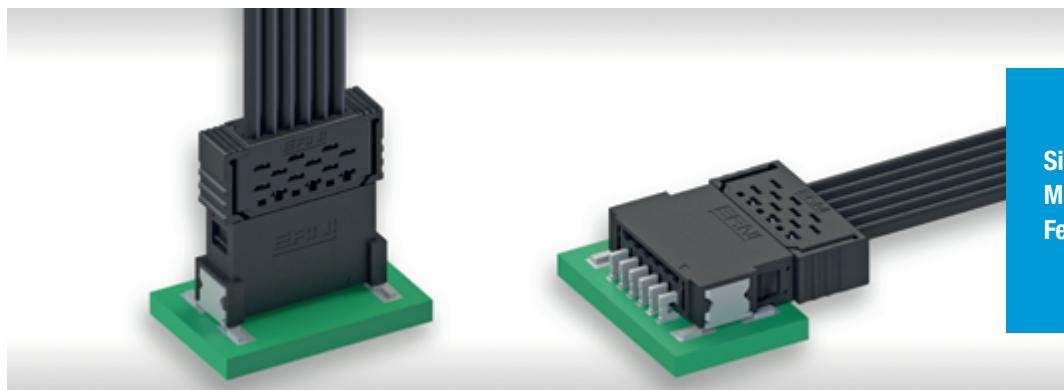
CONCEPT

CAPABILITIES

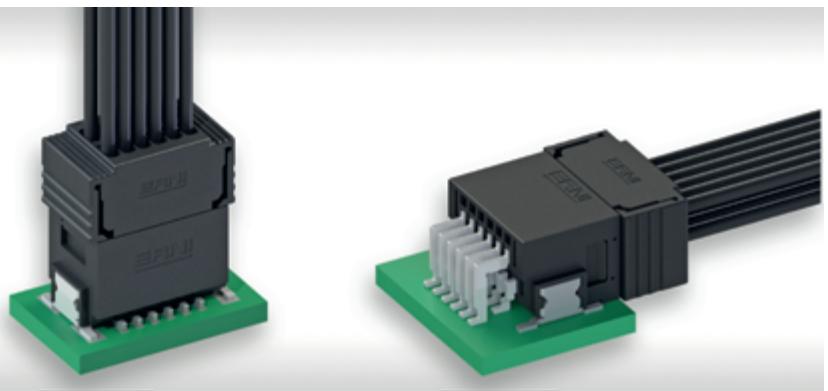
**Single-row
Male 90° or 180° -
Female 90°**



**Single-row
Male 90° or 180° -
Female 180°**



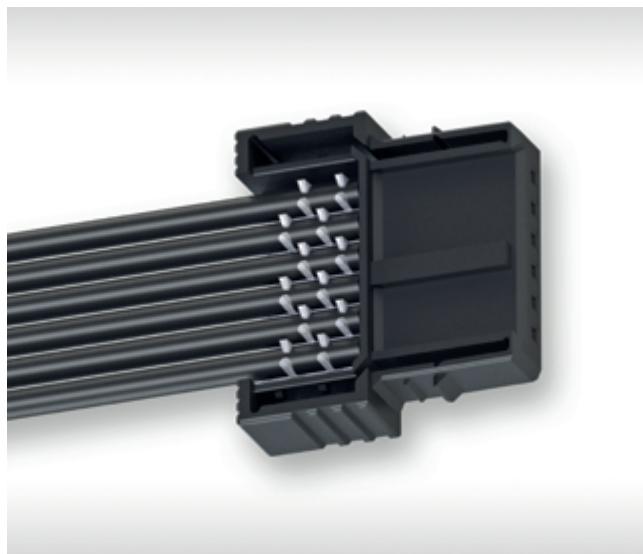
**Dual-row
Male 90° or 180° -
Female 180°**



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ADVANTAGES

DOUBLE ARRANGED INSULATION DISPLACEMENT TERMINATION WITH INTEGRATED STRAIN RELIEF



- reliable contact due to the double arranged insulation displacement contact
- integrated strain relief protects the IDC connection from mechanical stress caused by cable movements

CRIMP CONTACT

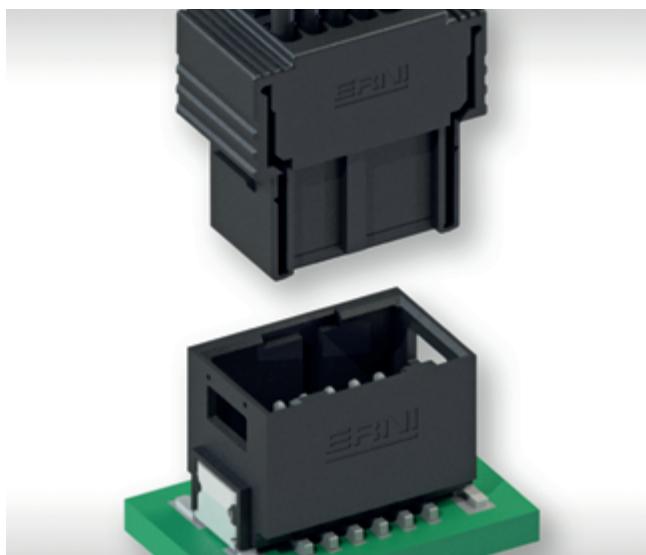


- primary and secondary contact locking in the female connector housing
- closed crimp contact ensures enhanced reliability during processing
- form-fitting of the contact prevents incorrect insertion

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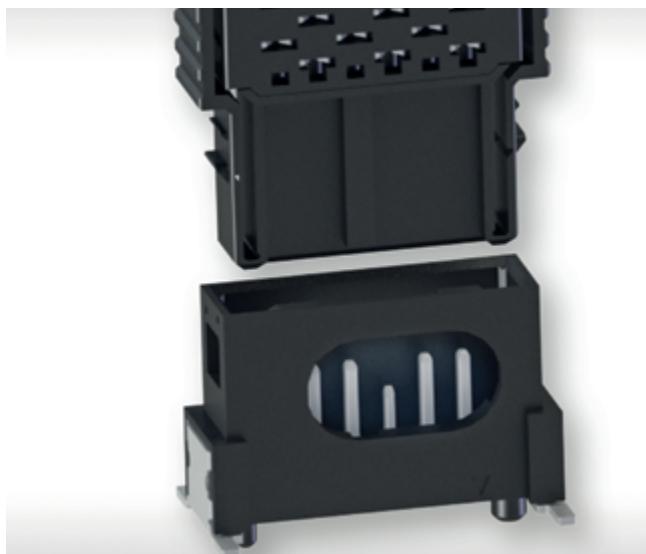
ADVANTAGES

KOSHIRI-SECURITY



- additional tongues at the female and grooves at the male connector allow a pre-alignment and guarantee an exact mating procedure
- male connector pins can not be damaged while improper or skewed mating

ELECTRICAL CPA (CONNECTOR POSITION ASSURANCE)

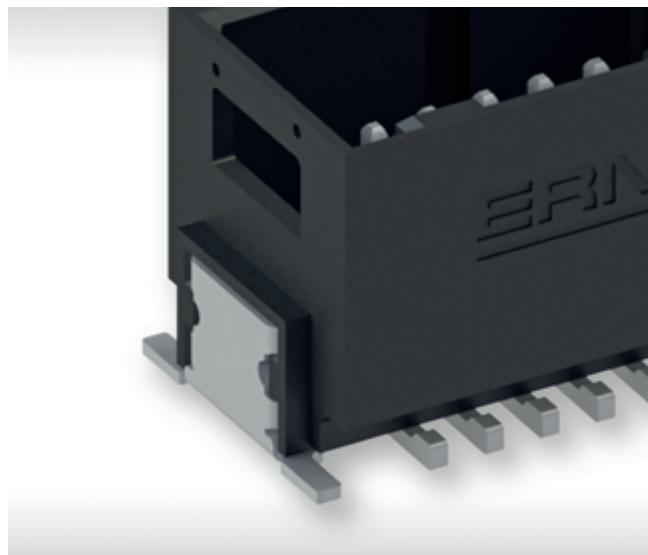


- shortened pin for electrical check of correct male and female connection
- optional function

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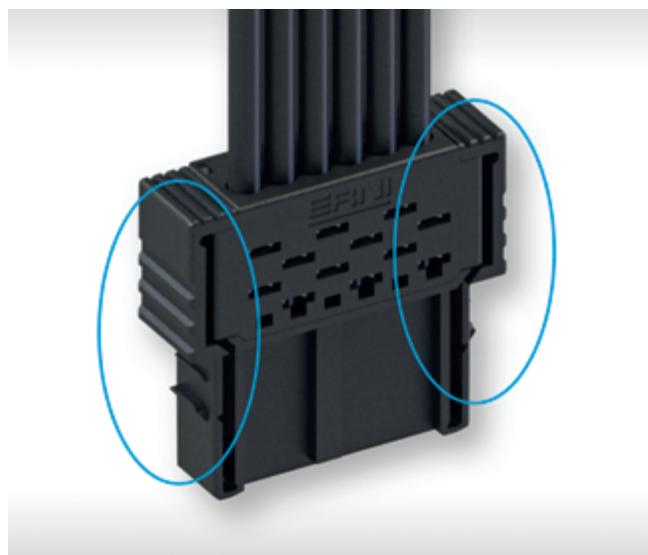
ADVANTAGES

SOLDER-CLIP



- outstanding retention forces on the circuit board
- solder clips absorb mechanical stress and are able to withstand high shock and vibration loads

CONNECTOR LOCKING



- double-sided interlocking
- acoustic and haptic feedback of the interlocking
- can be manually released without tools

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SINGLE-ROW MALE CONNECTORS

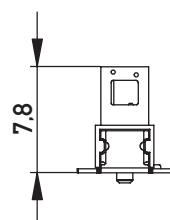
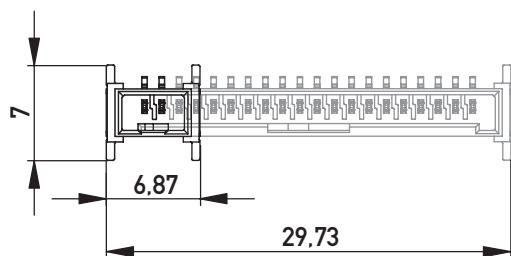
PRODUCT SPECIFICATION



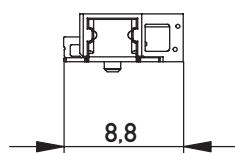
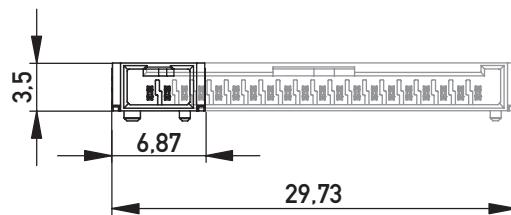
- SMT termination
- 2 – 20 pins
- vertical and right angle male connectors
- tape and reel packaging for fully automated assembly process

DIMENSIONAL DRAWINGS

Vertical, 2- and 20 pin



Right angle, 2- and 20 pin



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SINGLE-ROW FEMALE CONNECTORS

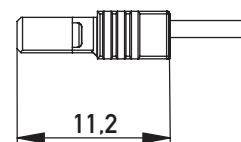
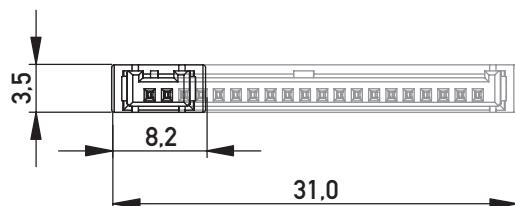
PRODUCT SPECIFICATION



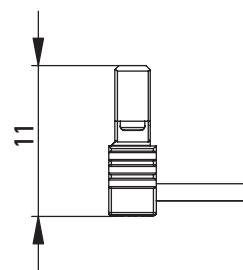
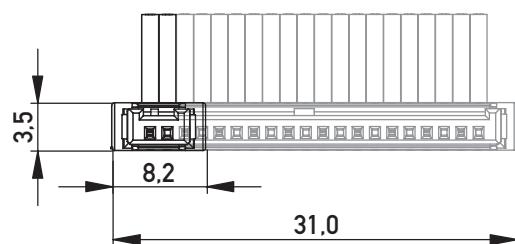
- Crimp- and IDC-Versions
- 2 – 20 pins
- female connectors with 90° and 180° cable outlet
- cable assemblies are also available

DIMENSIONAL DRAWINGS

180° cable outlet, 2- and 20 pin



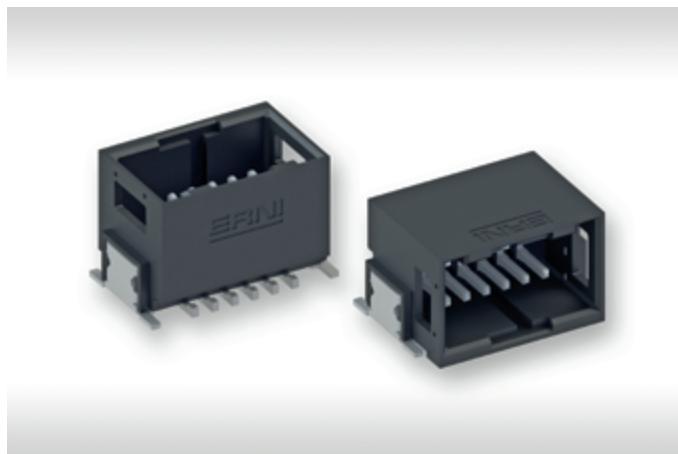
90° cable outlet, 2- and 20 pin



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DUAL-ROW MALE CONNECTORS

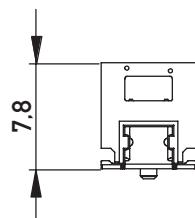
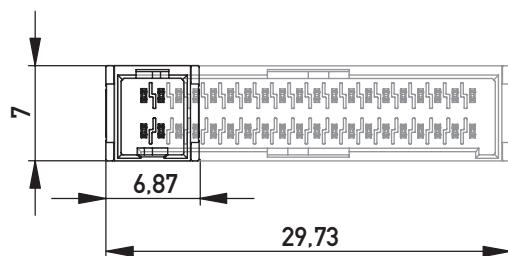
PRODUCT SPECIFICATION



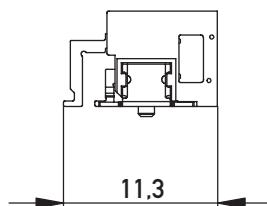
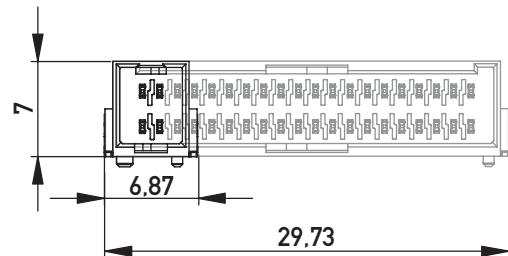
- SMT termination
- 4 – 40 pins
- vertical and right angle male connectors
- tape and reel packaging for fully automated assembly process

DIMENSIONAL DRAWINGS

Vertical, 4- and 40 pin



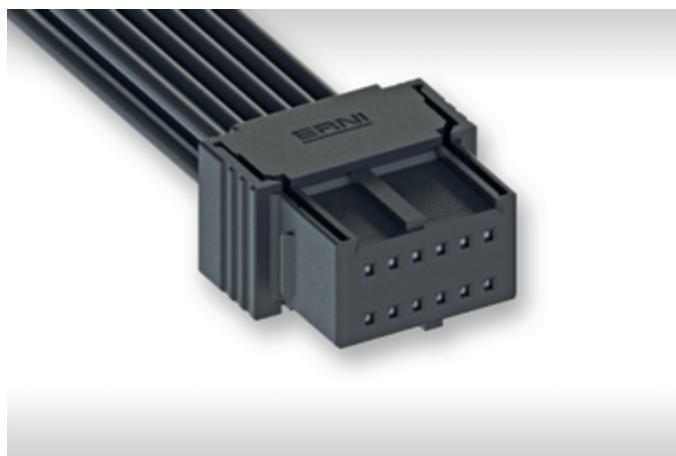
Right angle, 4- and 40 pin



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DUAL-ROW FEMALE CONNECTORS

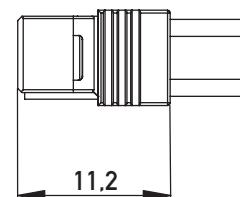
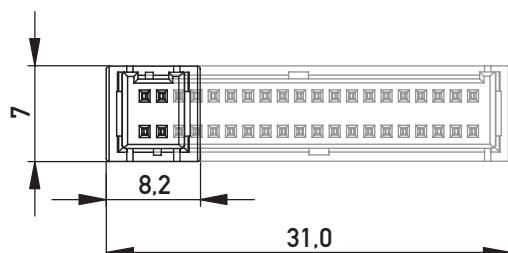
PRODUCT SPECIFICATION



- Crimp- and IDC-Version
- 4 – 40 pins
- female connectors with 180° cable outlet
- cable assemblies are also available

DIMENSIONAL DRAWINGS

180° cable outlet, 4- and 40 pin



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