

# MaxiBridge QT

Cable Connector System with Tin Plated Contacts



# MaxiBridge QT

## CABLE CONNECTOR SYSTEM WITH DEFINED TIN PLATING

### GENERAL



MaxiBridge QT  
Male and Female  
Connector

MaxiBridge QT (Quantum Tin) is a cable connector system with a 2.54 mm pitch and the logical further development of the MaxiBridge product family. The connectors are available in single and dual row versions. An important distinguishing feature from the MaxiBridge connectors is the tin plated contact surfaces. MaxiBridge QT is predestined for demanding and space-saving board-to-wire applications. The compact cable connector system is characterized by high current carrying capacity and reliability.

The MaxiBridge QT connector system is ideally suited for many automotive applications. For application areas such as battery management systems in vehicles and modern power electronics in electric and hybrid vehicles, high-performance and at the same time safety-oriented connectors are required. The robust and compact design of MaxiBridge QT connec-

tors with their primary and secondary locking of the female contacts in the housing perfectly meets these requirements. Front lighting systems require connectors with specific characteristics such as high thermal load capacity and complement: high current carrying capacity. The MaxiBridge QT connector system fully meets these application requirements.

In addition to the automotive sector, industrial automation offers many other application possibilities. The MaxiBridge QT connectors can be used to network sensors, actuators, and controls, to couple drive controls and drives, or to implement analysis devices and display units.

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### FEATURES

|                                   |   |
|-----------------------------------|---|
| <b>Pitch</b>                      | 2.54 mm   |
| <b>No. of Pins</b>                | Single row: 2, 3, 4 pins; 5, 6, and 8 pins planned<br>Dual row: 10, 20 pins   |
| <b>Current rating per contact</b> | up to 7 A   |
| <b>Termination</b>                | Male SMT, Female crimp  |
| <b>Cable</b>                      | AWG 20, 22<br>Metric 0.35 mm <sup>2</sup> , 0.5 mm <sup>2</sup>   |
| <b>Color coding</b>               | black   |
| <b>Packaging</b>                  | Male Tape and Reel<br>Female poly-bag (no pre-assembly of the female housing)   |
| <b>Variants*</b>                  | Vertical male connectors, single and dual row<br>Right angle male connectors, single and dual row<br>Female connectors 180° cable outlet, single and dual row<br>Crimp contacts |
| <b>Product approval</b>           | LV214 / USCAR planned   |

\* QT connectors are not mating compatible to MaxiBridge gold plated.

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## CHARACTERISTICS

### TECHNICAL DATA

| Description                       | Standard           | Male Connector<br>Single and Dual Row  | Female Connector<br>Single and Dual Row |
|-----------------------------------|--------------------|--|---|
| Temperature range                 |                    | -40 / 105 °C                           |   |
| Current rating per contact        | IEC60512 test 5b   | max. 7 A at 20 °C                      |   |
| Air- and creepage                 |                    | contact - contact 0.4 mm               |   |
| Operating voltage                 | IEC 60664          | 40 V                                   |   |
| Dielectric strength               | IEC 60512 test 4a  | contact – contact 500 V <sub>rms</sub> |   |
| Contact resistant                 | IEC 60512 test 2a  | < 25 mΩ                                |   |
| Insulation resistant              | IEC 60512 test 3a  | > 10 <sup>4</sup> MΩ                   |   |
| Mechanical Operation              | IEC 60512 test 9a  | 20 mating cycles                       |   |
| Insertion and withdrawal force    | IEC 60512 test 13b | 1 N per contact                        |   |
| Gauge retention force             | IEC 60512 test 16e | > 0.1 N                                |   |
| Processing Conditions             |                    |  |   |
| Reflow soldering temperature max. | JEDEC J-STD-020    | > 30 s at 260 °C                       | –                                       |
| Coplanarity                       |                    | < 0.1 mm                               | –                                       |
| Housing Material                  |                    |  |   |
| Insulation body                   |                    | LCP                                    |   |
| CTI value                         | IEC 112            | 175                                    |   |
| UL flame rating                   |                    | UL 94 V-0                              |   |
| UL file plastic material          |                    | E83005                                 |   |
| Contact Material                  |                    |  |   |
| Base material                     |                    | Cu alloy                               |   |
| Mating area                       |                    | Sn                                     |   |
| Termination area                  |                    | Sn                                     |   |

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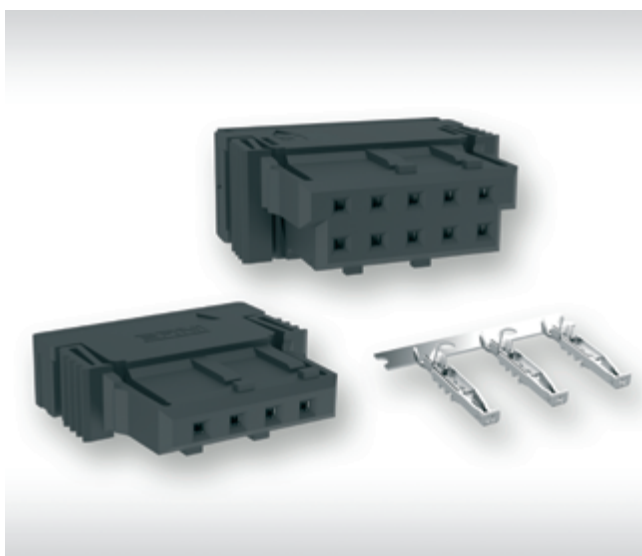
## VARIANTS

### MALE CONNECTORS



- Vertical and right angle
- 2, 3, 4, 10 and 20 pins
- Single and dual row
- SMT termination
- Tape and Reel packaging
- Available part numbers and current drawings on request

### FEMALE CONNECTORS



- 180 ° cable outlet
- 2, 3, 4, 10 and 20 pins
- Single and dual row
- Crimp contacts
- Poly-bag packaging
- Available part numbers and current drawings on request



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