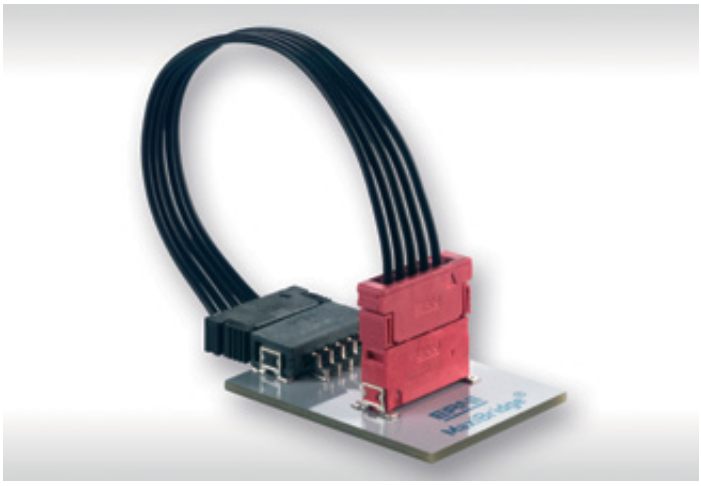
MaxiBridge

2.54 mm Wire-to-Board Connectors







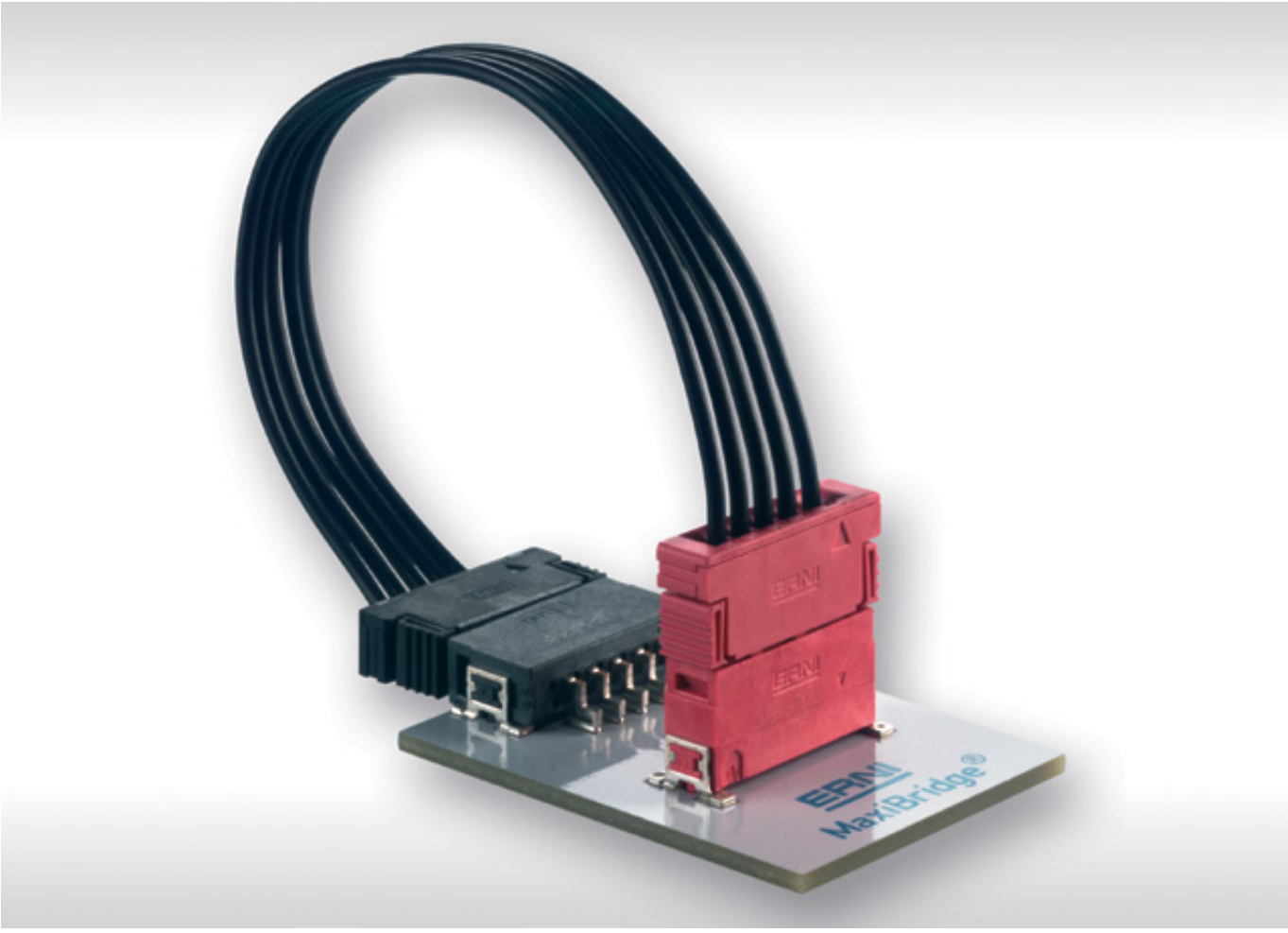
Downloaded from Arrow.com.

MaxiBridge - CABLE CONNECTOR SYSTEM

The 2.54 mm single and dual row cable connector system is excellently suitable for reliable and space saving connections between Printed Circuit Boards (PCB) and decentral units, e.g. lamps or info panels, front plate elements like buttons, switches or LEDs, motors, fans etc. The cable system can be used in different applications, for example: automotive, industrial, medical or even lighting technology. Thanks to the availability of vertical and right angle male connectors and female connectors with 180° cable outlet the system can be used in a versatile manner. Emphasis is put on flexibility of the usable cable sizes. Thus the required current rating can be adjusted over a wide range.

The vertical and right angle male connectors provide Surface Mount Technology (SMT) terminals and the female connector has contact cavities according to the crimp contacts. The plastic material used is suitable for lead-free reflow soldering. Tape and reel packaging and pick and place pad for automatic assembly is a standard.

The crimp contacts are secured twice and reach high retention forces. For each pin number, there are four mechanical and different colored coding versions with high blocking forces against mismating available. Cable and male connector have a locking system on both sides, which helps prevent the contact from loosening due to vibration. The robust interlocking can be manually released without tools.

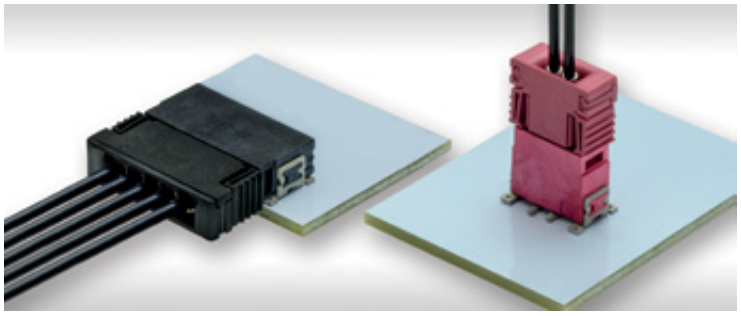


Downloaded from Arrow.com.

FEATURES

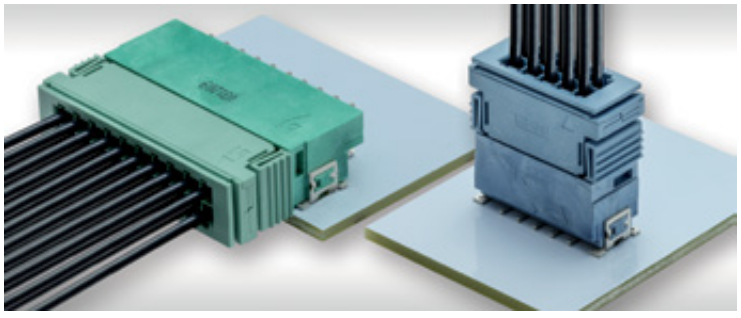
Description	MaxiBridge (Au)	MaxiBridge QT (Sn)
Pitch	2.54 mm	
No. of Pins	2, 3, 4, 5, 6, 8, 10, 2x5, 2x10	
Current rating per contact	up to 12 A (depends on cable)	up to 7 A
Termination technology	Male connector SMT, female connector crimp	
Cables	American Wire Gauge (AWG) 18, AWG 20, AWG 22, AWG 24 & AWG 26 Metric 0.35 mm^2, 0.5 mm^2, 0.75 mm^2	AWG 20, AWG 22 Metric 0.35 mm^2, 0.5 mm^2
Packaging	Male Tape and Reel Female pre-assembly or poly-bag	
Variants	Single row male connectors, vertical and right angle Dual row male connectors, vertical and right angle Cable assemblies: Female connectors crimp, single and dual row, vertical	
Coding	black, blue, green, red	black
Automotive standard	LV214 and USCAR 2 for automotive connectors	

CAPABILITIES



Single Row Variants

- right angle male - female with 180° cable outlet
- vertical male - female with 180° cable outlet



Dual Row Variants

- right angle male - female with 180° cable outlet
- vertical male - female with 180° cable outlet

Downloaded from Arrow.com.

FEATURES

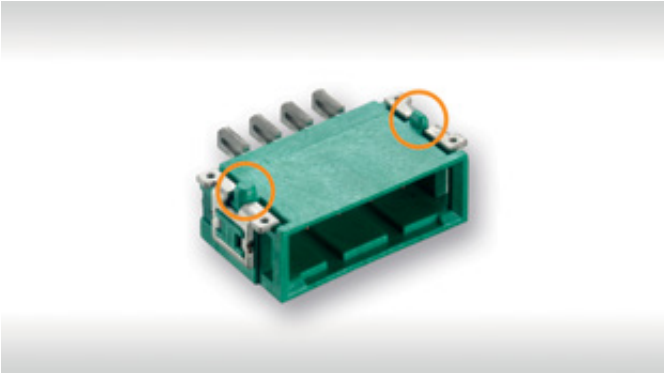
Housing Guide

- The rugged insulation body of the male connector provides an highly reliable cable connector guide.



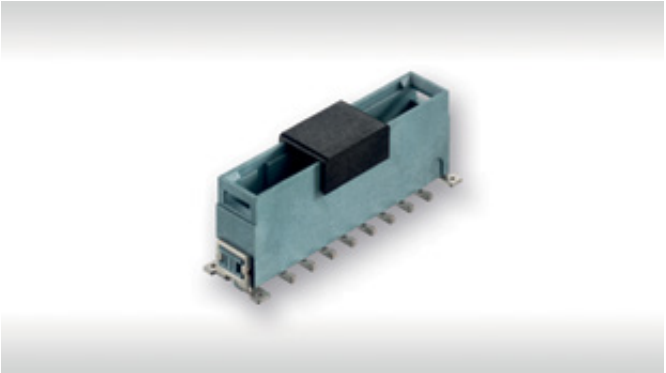
Locating Pegs

- Two pegs (round and oval) provides exact positioning on the PCB. In addition, they enable a compensation of the PCB hole tolerances.



Easy Assembly

- Pick-and-place cover for automatic assembly of the vertical male connectors with a vacuum pipette.



Robust Solder Clips

- Reliable retention force on the PCB due to ruggedized solder clips. In addition, they serve as an integrated strain relief.

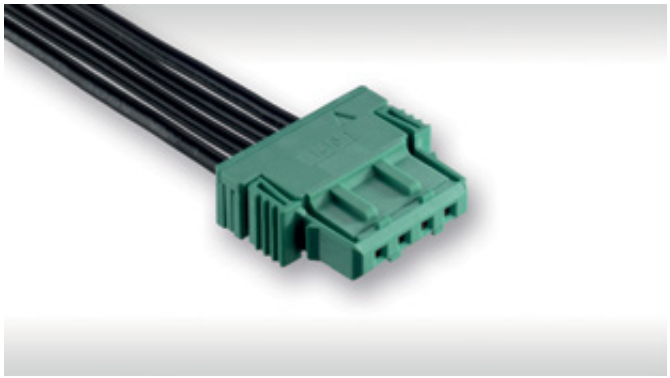


Downloaded from Arrow.com.

FEATURES

Locking for Housing

- The robust locking system with latches on both sides can be manually released without tools and resist high vibrations. During the locking process, there is an audible latching.



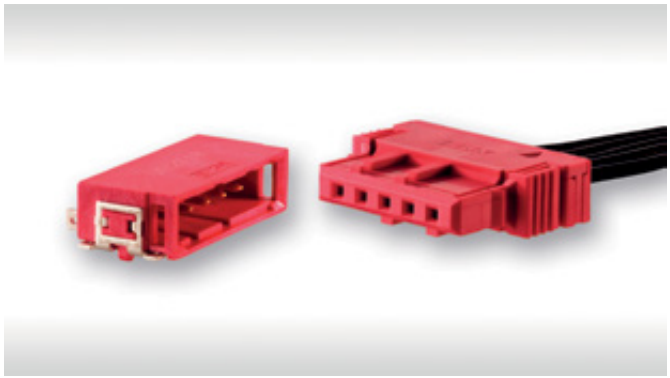
Contact Locking

- Primary and secondary locking of the crimp contact inside the connector housing.



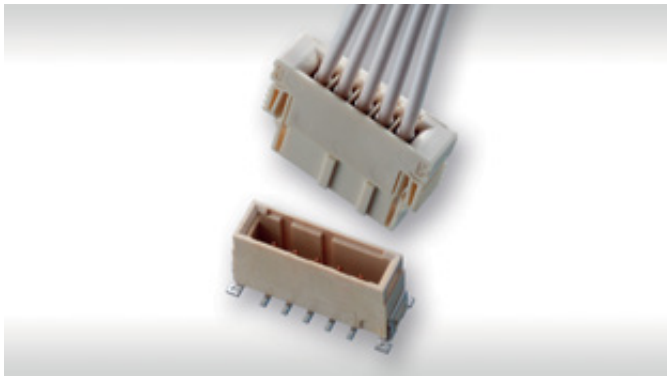
Coding

- Four different colored codings per pin number. With high blocking forces against mismating.



SSL-Lighting Technology

- Connectors with colorless insulation bodies help prevent shadow formation in lighting applications, e.g. LED strips with transparent diffusion disks. Thus providing uniform light distribution.



Downloaded from Arrow.com.

PROCESSING

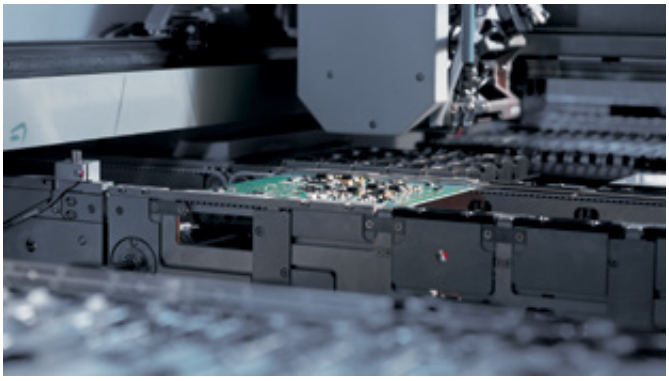
Tape and Reel Packaging

- transport safe packaging
- automatic assembly.



Automatic Assembly and Reflow Soldering

- for efficient processing on modern assembly lines.



Downloaded from Arrow.com.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

Technical Data

Description	Standard	MaxiBridge Male, Single and Dual Row	MaxiBridge Female, Single and Dual Row	MaxiBridge QT Male, Single and Dual Row	MaxiBridge QT Female, Single and Dual Row
Climate category	DIN EN 60068-1 test b	55 / 150 / 56			
Temperature range		-55 / 150 °C		-40 / 105 °C *	
Current rating per contact	IEC 60512 test 5b	up to 12 A (depends on cable)		max. 7 A at 20 °C	
Air- and creepage distance		contact - contact min. 1.2 mm			
Operating voltage	IEC 60664	The permissible operating voltages depend on the customer application and on the applicable or specified safety requirements. Insulation coordination according to IEC 60664-1 has to be regarded for the complete electrical device. Therefore, the maximum creepage and clearance distances of the mated connectors are specified for consideration as a part of the whole current path. In practice, reductions in creepage or clearance distances may occur due to the conductive pattern of the printed board or the wiring used, and have to be taken into account separately. As a result the creepage and clearance distances for the application may be reduced compared to those of the connector.			
Dielectric strength	IEC 60512 test 4a	contact – contact 1000 V_{rms}			
Contact resistance	IEC 60512 test 2a	≤ 20 mΩ		< 25 mΩ	
Insulation resistance	IEC 60512 test 3a	≥ 10^4 MΩ			
Broadband noise	DIN EN 60068-2-64	10 – 1000 Hz 27.8 m/s^2		TBC	
Contact disturbance (while broadband noise)	DIN EN 60068-2-64	< 1 µs		TBC	
Shock half sine	IEC 60068-2-27	30 g 6 ms		TBC	
Contact disturbance (while shock test)	IEC 60512 test 2e	< 1 µs		TBC	
Mechanical operation	IEC 60512 test 9a	500 mating cycles		20 mating cycles	
Insertion and withdrawal force	IEC 60512 test 13b	≤ 1 N per contact		1 N per contact	
Gauge retention force	IEC 60512 test 16e	> 0.15 N		TBC	

Downloaded from Arrow.com.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

Technical Data

Description	Standard	MaxiBridge Male,Single and Dual Row	MaxiBridge Female, Single and Dual Row	MaxiBridge QT Male, Single and Dual Row	MaxiBridge QT Female, Single and Dual Row
Processing Conditions					
Hand soldering temperature max	IEC 60068-2-20	3.5 s at 350 °C		3.5 s at 350 °C	
Reflow soldering temperature max.	JEDEC J-STD-020	30 s at 260 °C		> 30 s at 260 °C	
Coplanarity		< 0.1 mm		< 0.1 mm	
Housing Material					
Insulation body		LCP	PA46	LCP	PA46
CTI value	IEC 112	175	225	175	
UL flame rating		UL 94 V-0			
UL file plastic material		E83005	E47960	E83005	E47960
Contact Material					
Base material		Cu alloy			
Mating area		gold plating		Sn	
Termination area		Sn			
Environment Compatibility					
Recycling		no flame-retardant additives, no toxic additives allow easy recycling			
Product Approval					
UL		E247738		TBC	

Downloaded from Arrow.com.

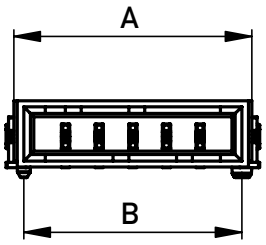
MAXIBRIDGE RIGHT ANGLE MALE, SINGLE ROW

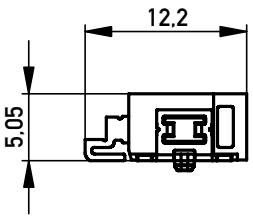
Product Specification

- SMT termination
- single row connectors
- current rating up to 12 A per contact
- automated board assembly
- four different colored codings
- for available part numbers please refer to our website



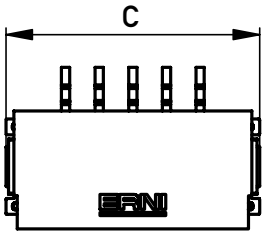
Dimensional Drawings



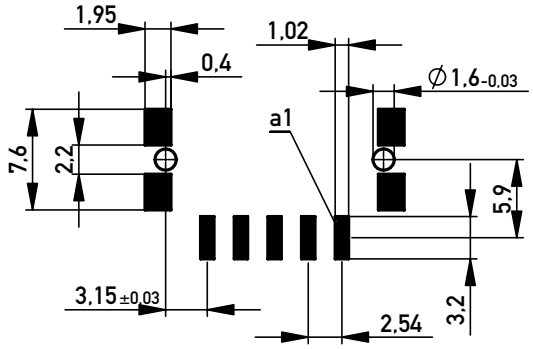


No. of Contacts	A	B	C
2	10.34	8.84	11.54
3	12.88	11.38	14.08
4	15.42	13.92	16.62
5	17.96	16.46	19.16
6	20.50	19.00	21.70
8	25.58	24.08	26.78
10	30.66	29.16	31.86

All dimensions in mm



Recommended Layout



Downloaded from Arrow.com.

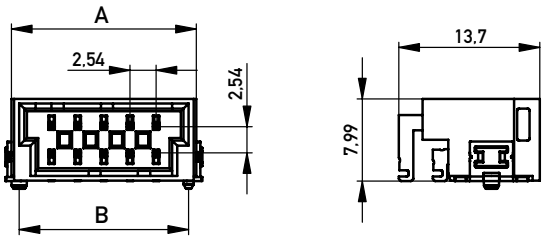
MAXIBRIDGE RIGHT ANGLE MALE, DUAL ROW

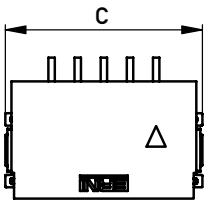
Product Specification

- SMT termination
- dual row connectors
- current rating up to 12 A per contact
- automated board assembly
- four different colored codings
- for available part numbers please refer to our website



Dimensional Drawings

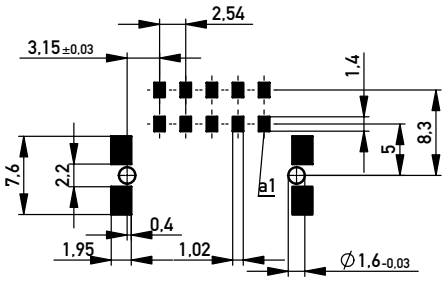




No. of Contacts	A	B	C
10	17.96	16.46	19.16
20	30.66	29.16	31.86

All dimensions in mm

Recommended Layout



Downloaded from Arrow.com.

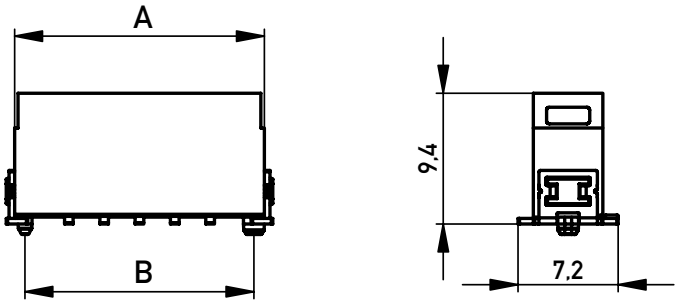
MAXIBRIDGE VERTICAL MALE, SINGLE ROW

Product Specification

- SMT termination
- single row connectors
- current rating up to 12 A per contact
- automated board assembly
- four different colored codings
- for available part numbers please refer to our website

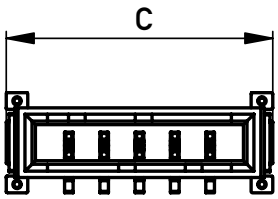


Dimensional Drawings

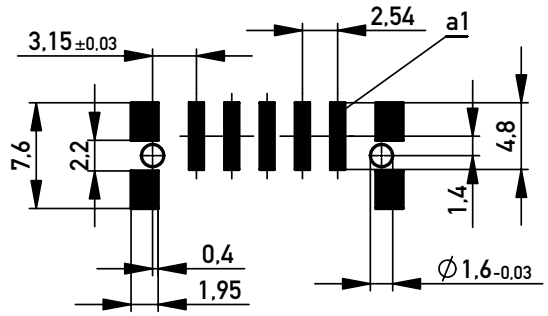


No. of Contacts	A	B	C
2	10.34	8.84	11.54
3	12.88	11.38	14.08
4	15.42	13.92	16.62
5	17.96	16.46	19.16
6	20.50	19.00	21.70
8	25.58	24.08	26.78
10	30.66	29.16	31.86

All dimensions in mm



Recommended Layout



Downloaded from Arrow.com.

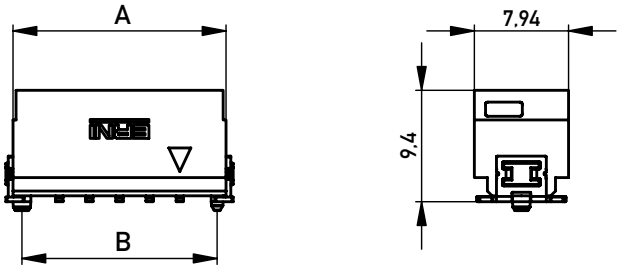
MAXIBRIDGE VERTICAL MALE, DUAL ROW

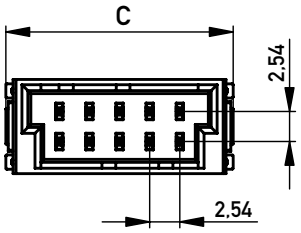
Product Specification

- SMT termination
- dual row connectors
- current rating up to 12 A per contact
- automated board assembly
- four different colored codings
- for available part numbers please refer to our website



Dimensional Drawings

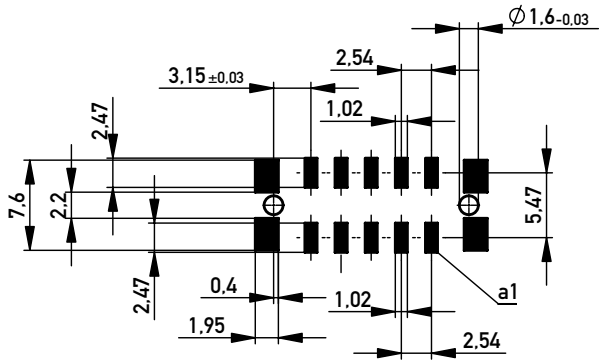




No. of Contacts	A	B	C
10	17.96	16.46	19.16
20	30.66	29.16	31.86

All dimensions in mm

Recommended Layout



Downloaded from Arrow.com.

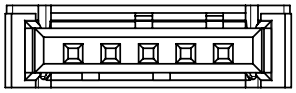
MAXIBRIDGE VERTICAL FEMALE, SINGLE ROW

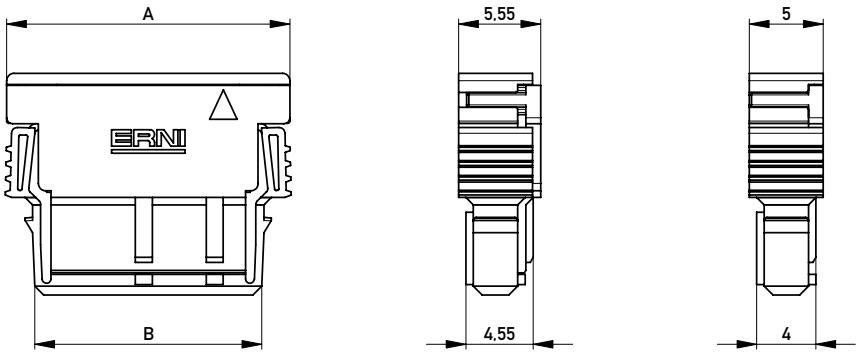
Product Specification

- crimp contact with primary and secondary locking
- single row connectors
- current rating up to 12 A per contact
- four different colored codings
- for available part numbers please refer to our website



Dimensional Drawings





No. of Contacts	A	B
2	11.54	7.74
3	14.08	10.28
4	16.62	12.82
5	19.16	15.36
6	21,70	17.90
8	26.78	22.98
10	31.86	28.06

All dimensions in mm

Crimp contact

- AWG 20
- AWG 22
- AWG 24
- AWG 26
- Metric 0.35 mm^2
- Metric 0.5 mm^2
- Metric 0.75 mm^2

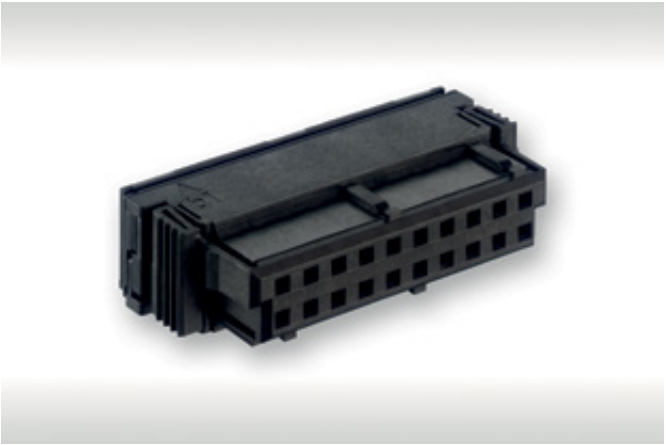


Downloaded from Arrow.com.

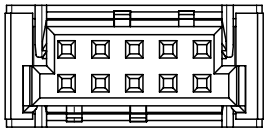
MAXIBRIDGE VERTICAL FEMALE, DUAL ROW

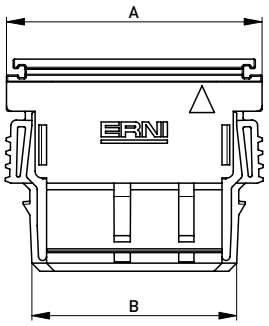
Product Specification

- crimp contact with primary and secondary locking
- single row connectors
- current rating up to 12 A per contact
- four different colored codings
- for available part numbers please refer to our website

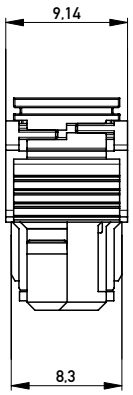


Dimensional Drawings

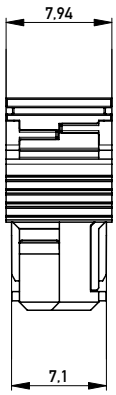




Covers loose mounted



Covers pressed on



No. of Contacts	A	B
10	19.16	15.36
20	31.86	28.06

All dimensions in mm

Crimp contact

- AWG 20
- AWG 22
- AWG 24
- AWG 26
- Metric 0.35 mm²
- Metric 0.5 mm²
- Metric 0.75 mm²



Downloaded from Arrow.com.

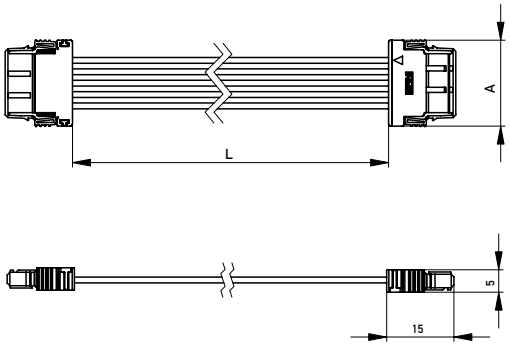
MAXIBRIDGE CABLE ASSEMBLIES, SINGLE ROW

Product Specification

- cable assemblies with crimp female connectors
- single row connectors
- different cable types
- connectors with four different colored codings
- wire cross sections AWG 20, 22, 24 and 26
- for available part numbers please refer to our website



Dimensional Drawings



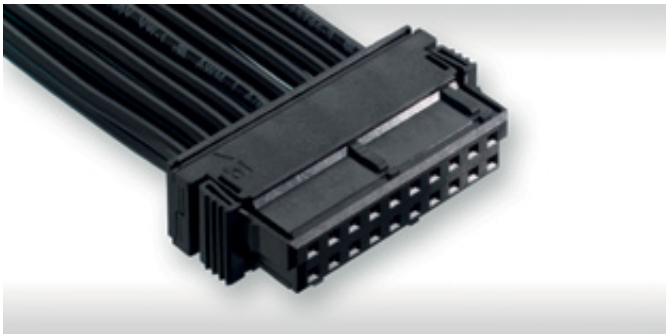
No. of Contacts	A
2	11.54
3	14.08
4	16.62
5	19.16
6	21.70
8	26.78
10	31,86

All dimensions in mm

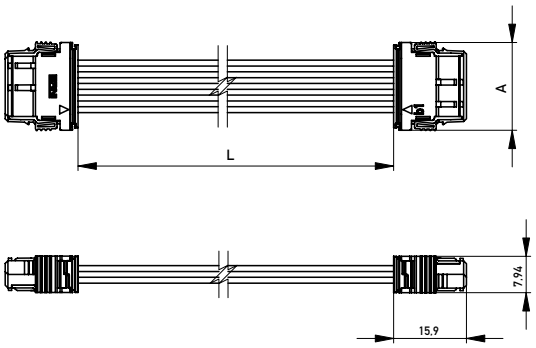
MAXIBRIDGE CABLE ASSEMBLIES, DUAL ROW

Product Specification

- cable assemblies with crimp female connectors
- single row connectors
- different cable types
- connectors with four different colored codings
- wire cross sections AWG 20, 22, 24 and 26
- for available part numbers please refer to our website



Dimensional Drawings



No. of Contacts	A
10	19.16
20	31.86

All dimensions in mm

Downloaded from Arrow.com.

Connect With Us

We make it easy to connect with our experts and are ready to provide the support you need.
Visit **www.te.com/support** to chat with a Product Information Specialist.

te.com

2023 TE Connectivity. All Rights Reserved.

TE Connectivity, TE connectivity (logo), ERNI, MaxiBridge and Every Connection Counts are trademarks owned or licensed by the TE Connectivity family of companies. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

JS 10/23 Original

CATALOG

TE Connectivity

ERNI Deutschland GmbH
a TE Connectivity Ltd. company
Seestraße 9
73099 Adelberg
Germany

Tel +49 7166 50-0
www.te.com

Downloaded from Arrow.com.