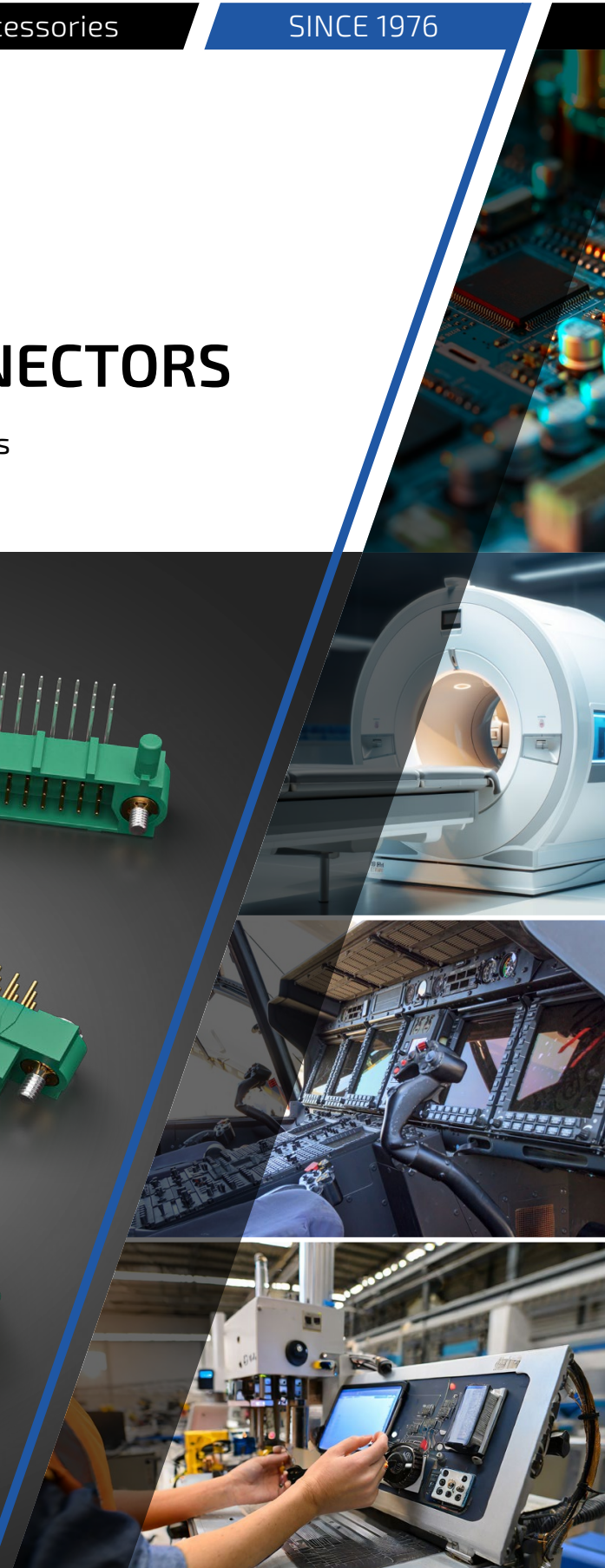
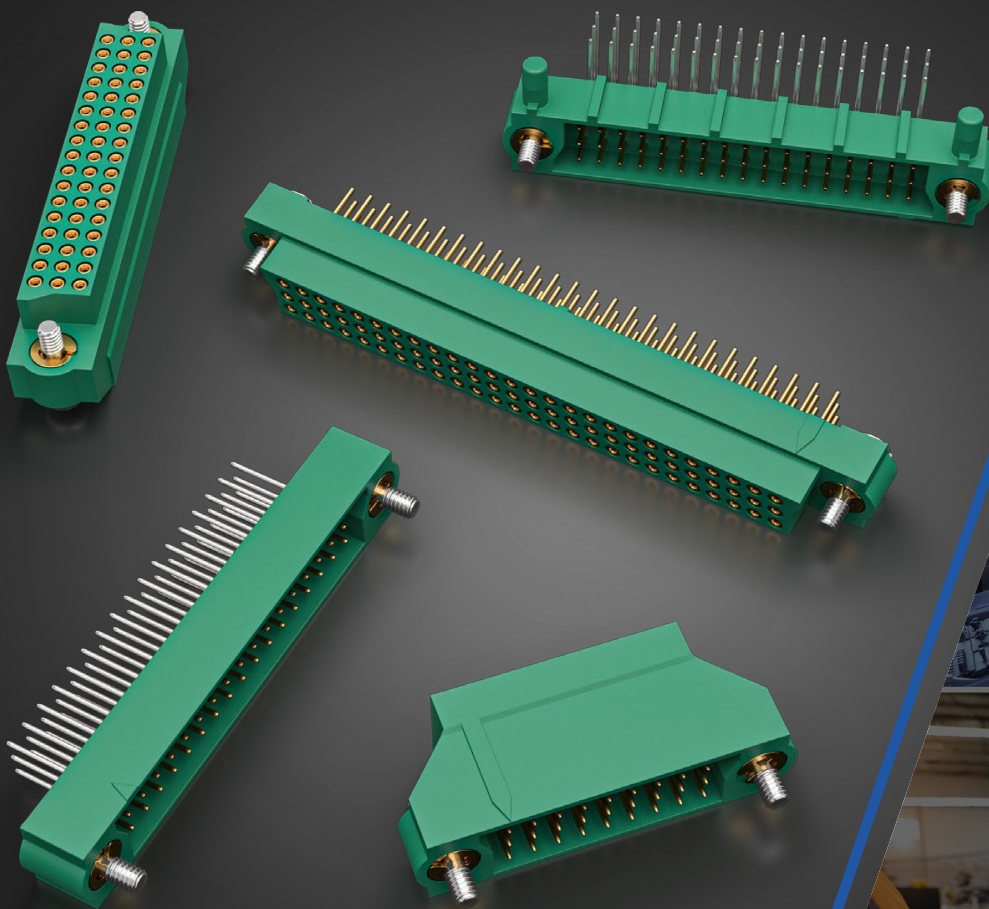
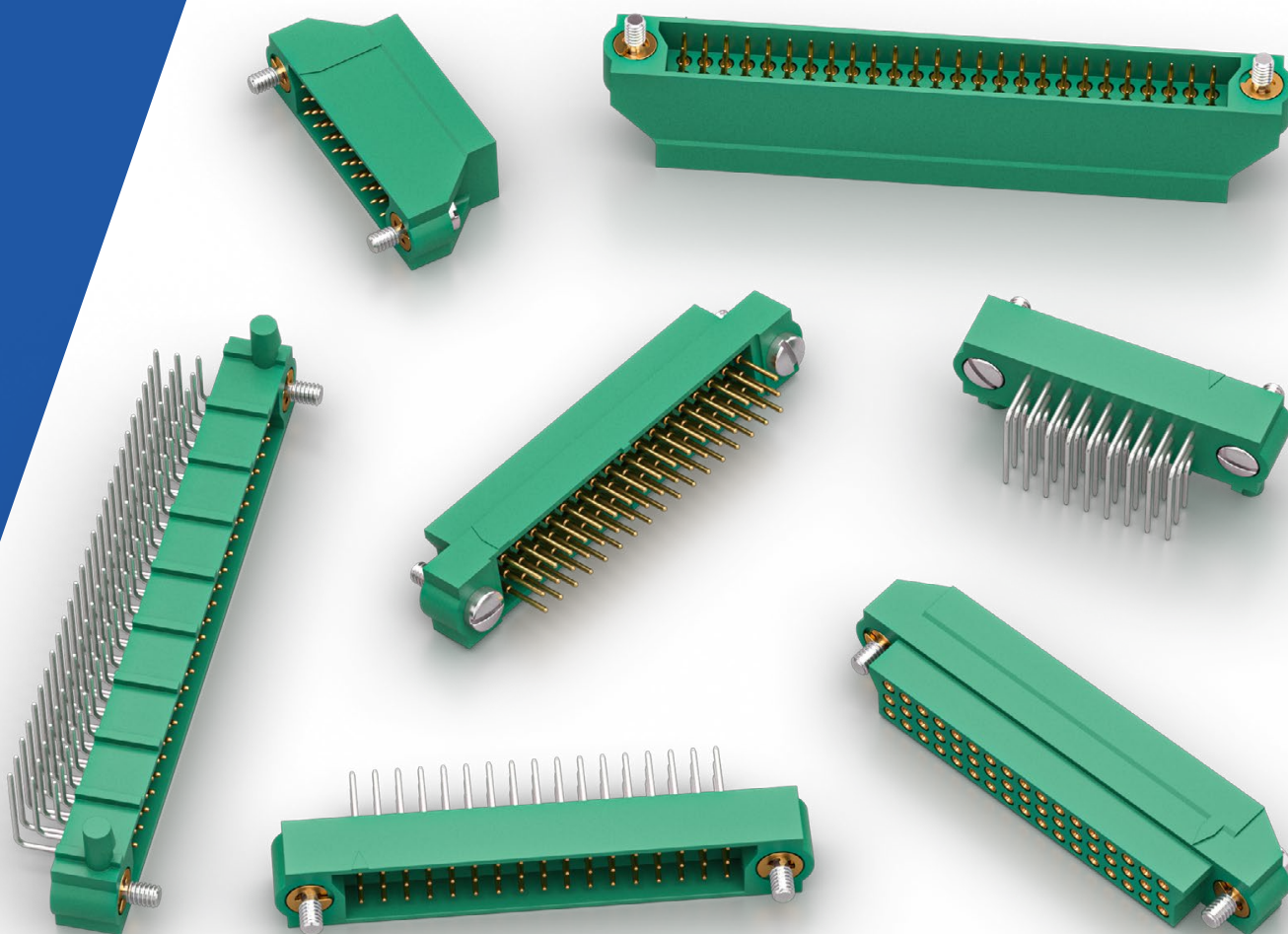


MICRONECTOR 300 CONNECTORS

High density, three row, 2 mm pitch PCB connectors for board-to-board or cable-to-cable applications.





Contents

Introduction	3
General information	4
Ordering information	5
Characteristics	6
Connector styles and dimensions	7, 8, 9
Common dimensions and mounting details	9, 10
Crimp details and tooling information	11
Product safety information	12

Lodge Group

Established in 1976, Weald Electronics is part of the Lodge Group which includes the connector distributor FC Lane Electronics and its Autosport Division, Lane Motorsport.



Lodge Group Headquarters

Weald Electronics is predominantly known for its comprehensive selection of circular bayonet and screw coupling connectors, and two-part PCB sub-miniature plastic-bodied circular connectors. Weald also specialises in short run, application specific, special and obsolete connector and cable developments.

To complete your interconnection solution, Weald manufactures protective caps and backshells for MIL-DTL-38999 and 26482 applications as well as protective caps, nut plates and gaskets for use right across motorsport.

With design, manufacturing and test facilities at its Slinfold Lodge HQ, Weald Electronics is able to tailor a connector solution to exactly meet a customer's specific requirement on surprisingly short lead times. Standard products are normally available next day.

Products from Weald Electronics Ltd are available from FC Lane Electronics Ltd.

t: +44 (0) 1403 790 661

e: sales@fclane.com

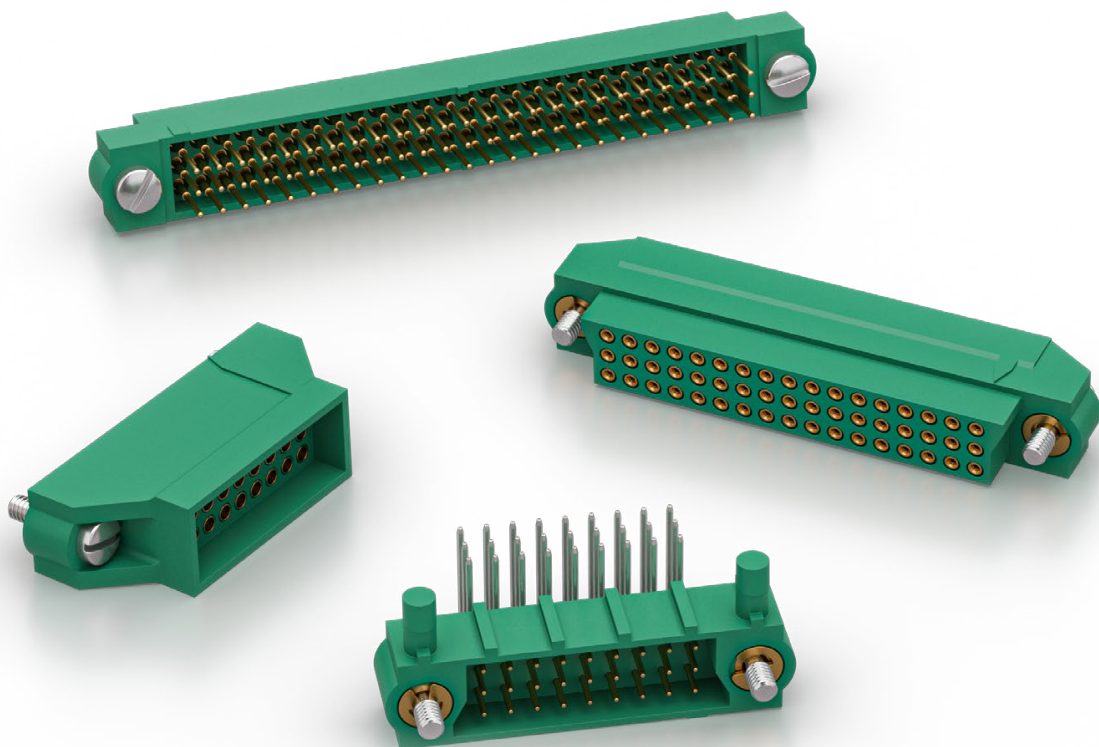
w: fclane.com

General Information

Micronector 300 connectors from Weald Electronics are high density, three row, 2 mm pitch connectors which are ideal for board-to-board or cable-to-cable applications where high resistance to vibration and extreme reliability are paramount. A male panel-mount variant is available. We can assemble in 27, 51 and 78 way sizes with male straight PC, 90° PC and crimp terminations.

Features and Benefits

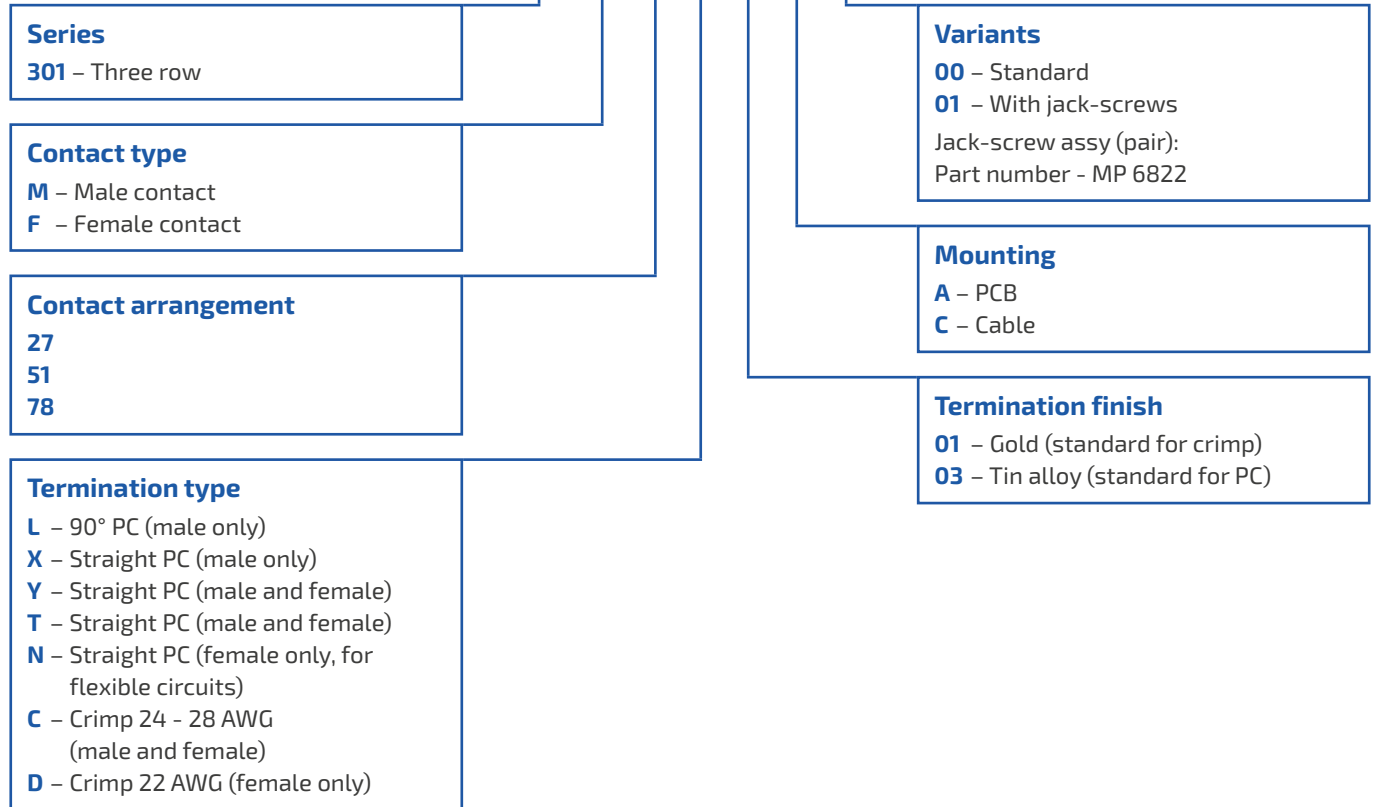
- High density 3-row, 2mm pitch 2-part PCB connector
- High specification
- 3 sizes: 27, 51 and 78 ways
- Male straight PC, 90° PC and crimp terminations
- Female straight PC, flexi circuit and crimp terminations
- Male panel mount variant
- For board-to-board or cable-to-cable applications
- Small footprint for increased packing density
- Optional Jackscrews will fit either male or female



Connector Ordering Information

Part number example

301 M 27 T 03 A 00



Characteristics

Materials

Insulator	Glass filled thermoplastic rated UL94V-0
Contact	Copper alloy plated hard acid gold
Termination	Hard acid gold or tin
Jackscrews	Stainless steel

Electrical

Current rating - individual contacts (in insulation)	at 25°C Tamb. 3.3 amps max. at 85°C Tamb. 2.6 amps max.
Current rating - all contacts (simultaneously)	at 25°C Tamb. 3.0 amps max. at 85°C Tamb. 2.2 amps max.
Working voltage DC or AC peak	120 volts
Proof voltage DC or AC peak	360 volts
Contact resistance initially	10 mΩ max
Contact resistance after conditioning	13 mΩ max
Insulation resistance initially	1000 mΩ min
Insulation resistance after conditioning	100 mΩ min

Mechanical

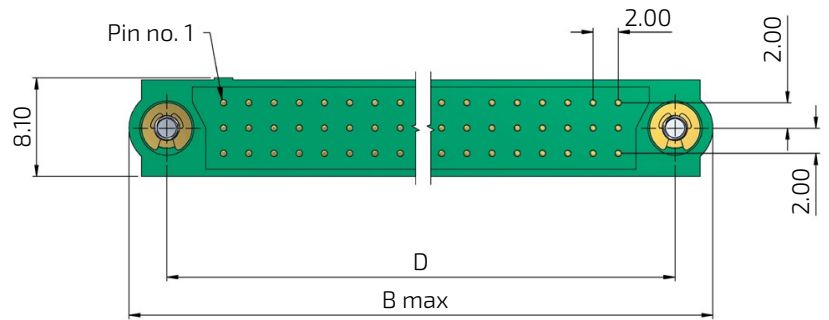
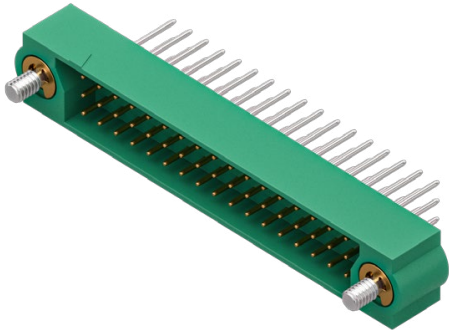
Mechanical operations	500
Insertion and withdrawal force (per contact pair)	0.8 N max, 0.2 N min
Contact retention	10 N min
Crimp barrel accommodation	22 AWG - 28 AWG to BS G 210 Type A

Environmental

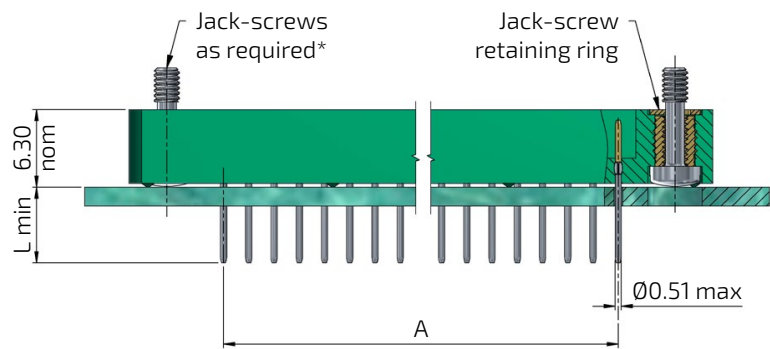
Climatic category	55/125/56
Vibration severity general	13.3 Hz to 2000 Hz random with superimposed sinusoids, duration 15 min each of 4 planes. No intermittencies measured when using an H.S.L.I. (High Speed Logic Interrupt) detector with a trip threshold of 2 ns
Vibration severity additional	120 volts
Bump severity	390 m/s ² (40 gn) 4000 ± 10 bumps
Shock severity	981 m/s ² (100 gn) for 6 ms
Acceleration severity	490 m/s ² (50 gn)

Styles and Dimensions

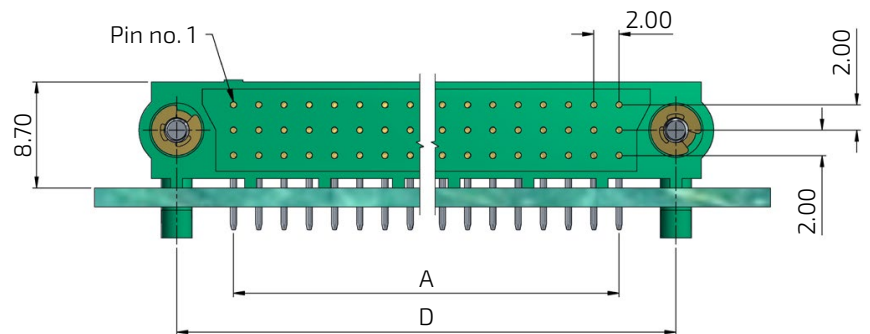
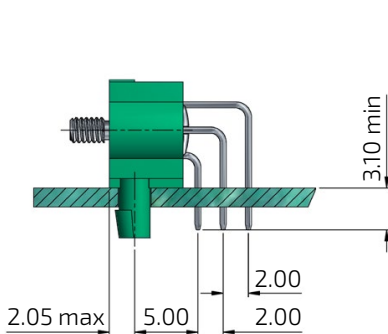
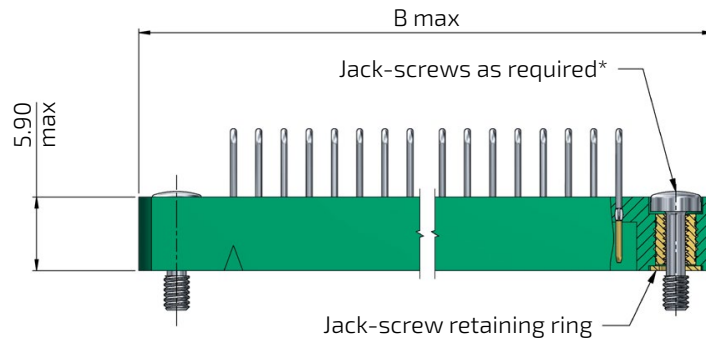
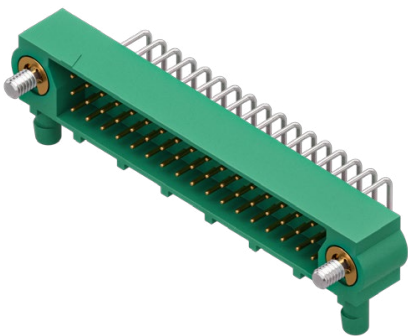
Male straight PC termination type T, X and Y



Type	L (min)
T	3.1
X	9.5
Y	5.7



Male 90° PC termination type L

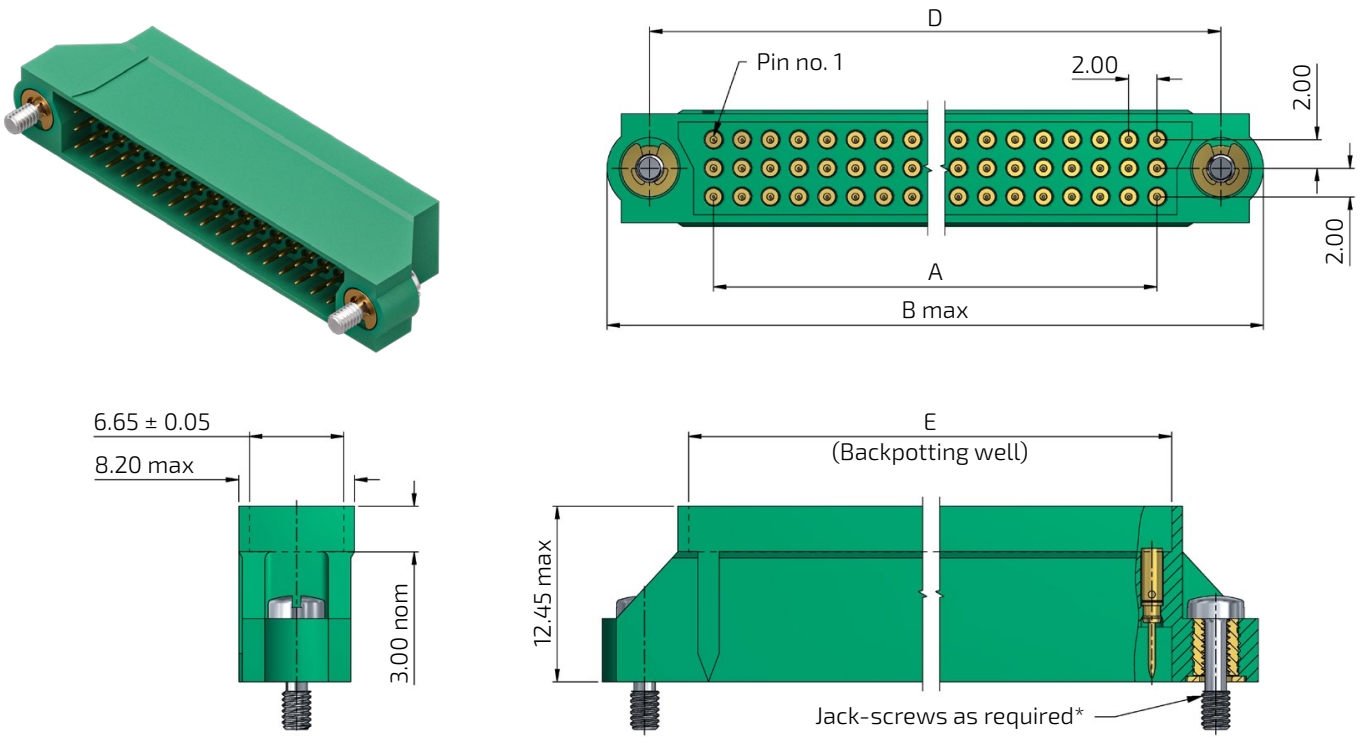


Note: All dimensions are in millimeters (mm).

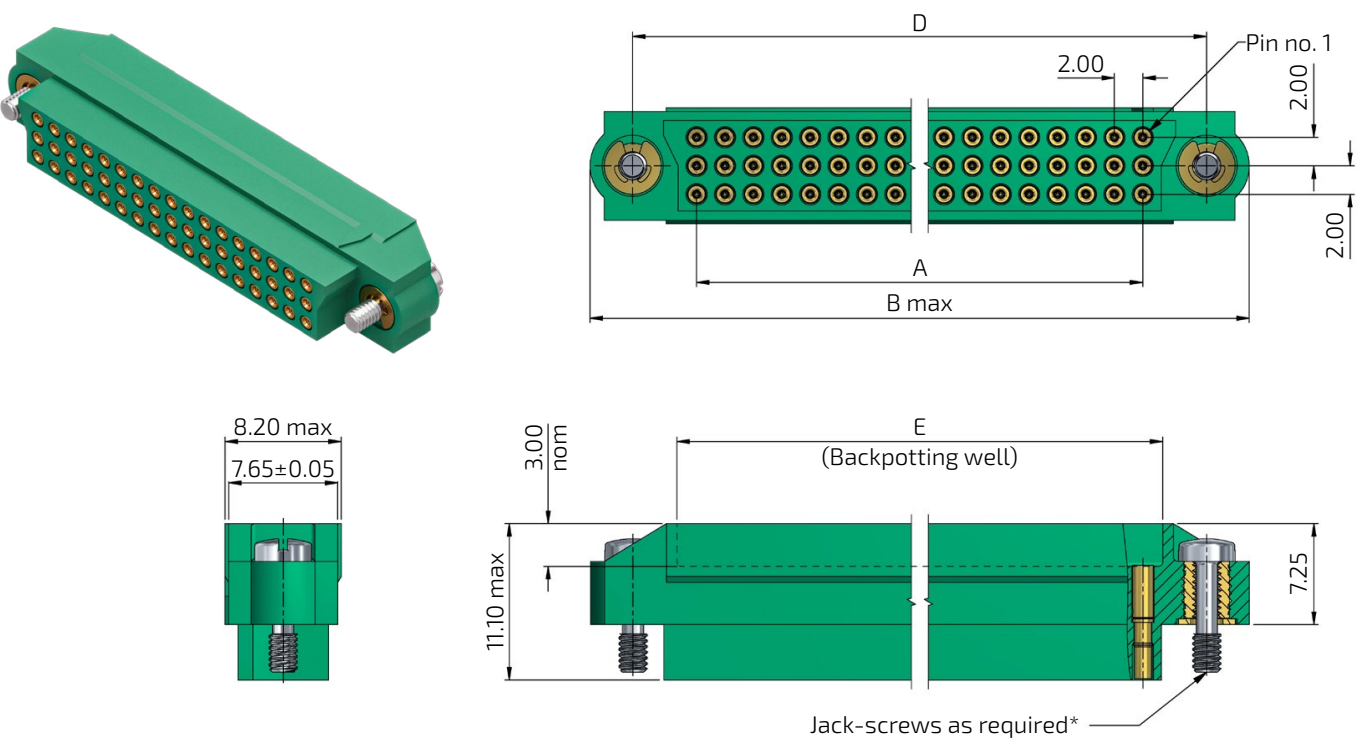
* - See ordering information on page 5.

Styles and Dimensions

Male crimp termination type C



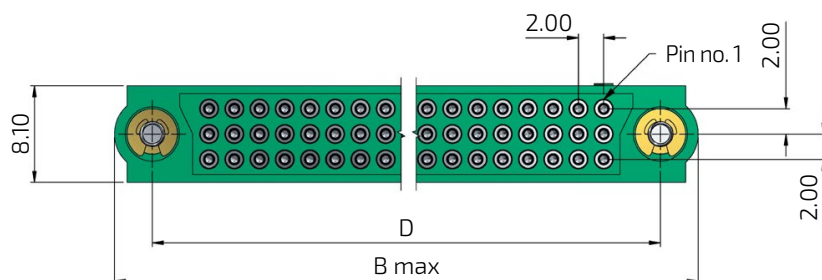
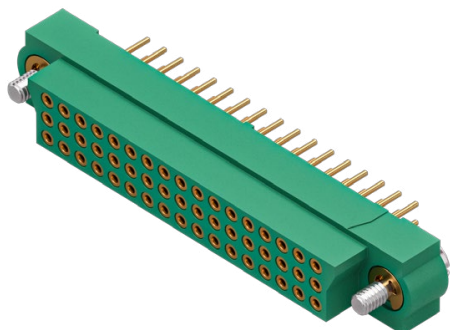
Female crimp termination type C and D



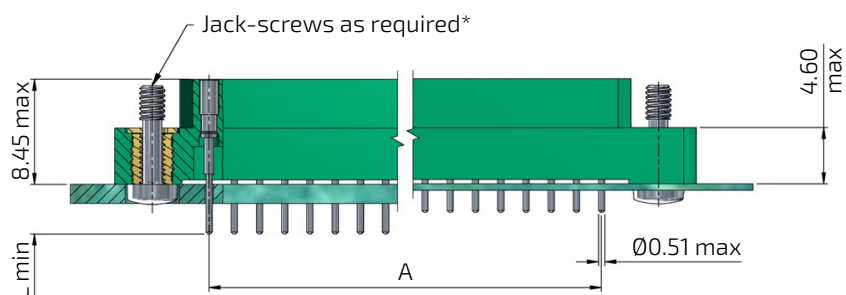
Note: All dimensions are in millimeters (mm).
 * - See ordering information on page 5.

Styles and Dimensions

Female straight PC termination type T, N and Y

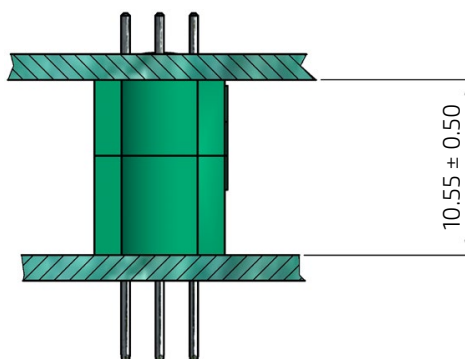


Type	L (min)
T	3.1
N	1.6
Y	5.5



Common Dimensions and Mounting Details

Spacing board - board

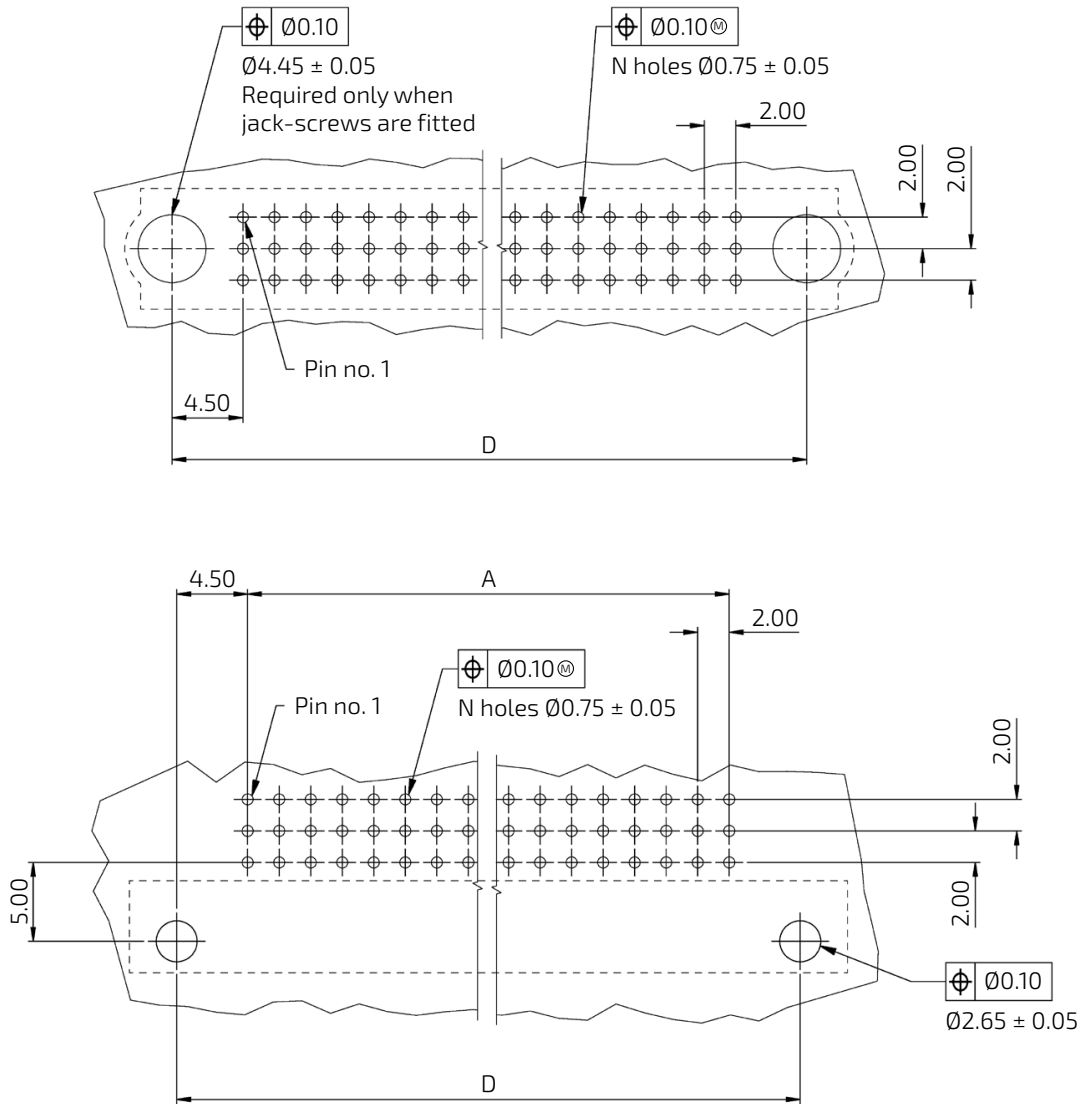


Note: All dimensions are in millimeters (mm).

* - See ordering information on page 5.

Common Dimensions and Mounting Details

Mounting details termination type T and L



Contact arrangement

Dimensions	A	B max	D	E ± 0.10
27	16.00	31.10	25.00	19.00
51	32.00	47.10	41.00	35.10
78	50.00	65.10	59.00	53.00

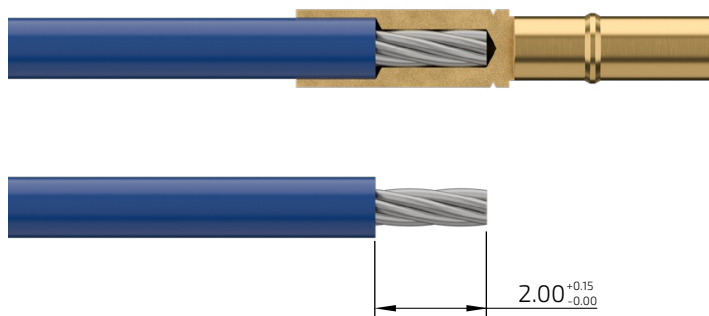
Note: All dimensions are in millimeters (mm).

Crimp Details

Termination type	Crimp barrel accommodation	Wire size/crimp tool setting			
		22 AWG	24 AWG	26 AWG	28 AWG
C*	24-28 AWG	-	7	6	6
D	22 AWG	6	-	-	-

Preferred wire type BS G 210 (Type A)
 * - Also suitable for use with 24 A.W.G DEF-STAN 61-12 (Part 6 Type 1) PVC.

Wire preparation



Tool Ordering Information

Tool name	Order code
Hand crimp tool	M22520/2-01
Crimp tool positioner	LMT/2/81091
Contact insertion and withdrawal tool kit	LMT/2/81092

If any contacts are removed, the moulding MUST be replaced.



Product Safety Information

These notes are intended to be used in conjunction with the Product Catalogue and Product Specification. Products may be safely used in the applications for which they have been designed and within the specified rating and environments. If products are exposed to conditions outside the performance ratings or specified environments they may constitute a hazard. In particular it should be noted that:

1. Material Content

Circular Connectors generally use metalwork parts made of brass, aluminium, phosphor-bronze or steel, which, dependant on the particular application, may be passivated and protected with cadmium or zinc plate – in conjunction with chromated or anodised surface finishes. The insulating materials can either be natural or synthetic rubber, together with plastic or glass-filled plastic moulded parts. Contact materials vary but are usually made of brass, phosphor-bronze, alumel or chromel.

2. Electric Shock, Burns and Fire

Hazard can occur if the product is used outside the specified parameters or if the product is damaged, wrongly wired, poorly assembled, poorly integrated into larger equipments, or contaminated with conductive fluids. Live circuit terminations must be protected and live circuits never broken by disconnecting products.

Hot spots may be created when resistance is increased due to damage or incorrect integration particularly soldering, or loose terminations. Overheating can cause breakdown of insulation, electric shock, burns or, ultimately, fire. In the event of fire noxious and/or toxic fumes may be released and, in these circumstances, any fire involving the product should be dealt with by personnel properly equipped. Connectors with exposed terminations or contacts should not be used on the current supply side of a circuit with exposed contacts on an unmated product. Before making a circuit live, the product and wiring should be checked to ensure there is no electrically conducting debris present. Circuit resistance checks should also be conducted before making the circuit live. Always ensure that connectors are assembled and wired by properly trained personnel.

3. Use, Transport and Storage of Products

Care must be exercised to avoid damage to any part of the products during transporting, storage or use. Abnormal transit or storage conditions and abuse during installation can give rise to damage. Products should not be used in a damaged condition.

Improper storage (particularly of damaged products) can give rise to additional hazards particularly corrosion. Attention is specifically drawn to the need for proper storage of products containing cadmium and you are advised to see the Guidance Note from the Health and safety Executive on Cadmium – Health and Safety Precautions.

4. Disposal of Products

Product should not be burnt.

Safety Rules

- Follow the guidelines given
- Always protect live circuits and never disconnect a live connector
- Never use a damaged connector
- Never burn discarded connectors

Lodge Group

FC Lane Electronics Ltd

Franchised connector distributor

+44 (0) 1403 790 661
fclane.com



Weald Electronics Ltd

Manufacturers of high quality connectors and accessories

+44 (0) 1403 790 715
wealdelectronics.com



Lane Motorsport

Division of FC Lane dedicated to motorsport industry

+44 (0) 1403 790 661
lanemotorsport.com

