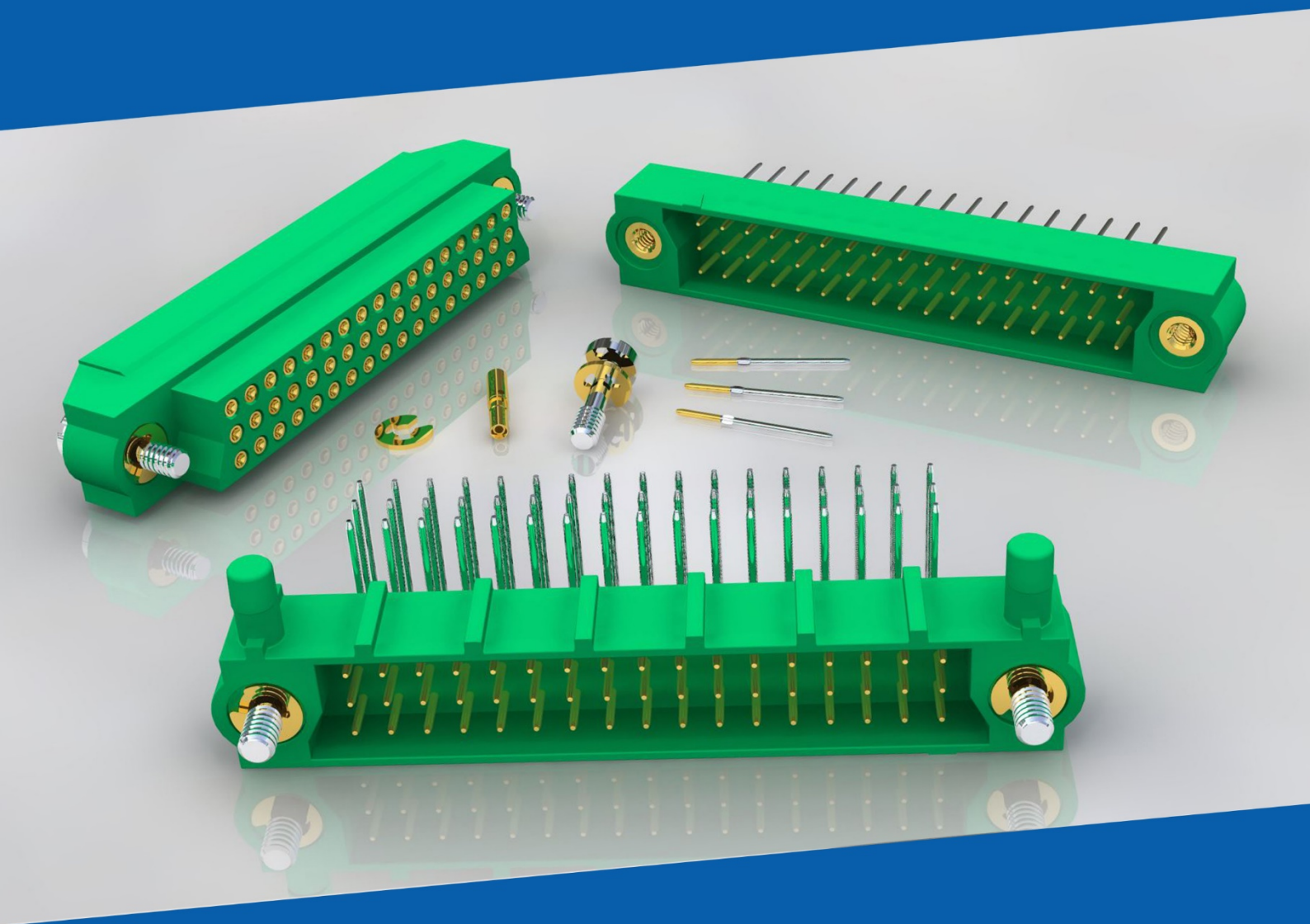
Micronector 300

High Density 2mm Pitch PCB Connectors



Weald ELECTRONICS

MANUFACTURERS OF HIGH QUALITY CONNECTORS AND CONNECTOR ACCESSORIES

www.wealdelectronics.com

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MICRONECTOR 300

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MICRONECTOR 300
GENERAL INFORMATION

CHARACTERISTICS

- 2mm pitch

Small footprint for increased packing density

Optional Jackscrews will fit either male or female

- Sizes from 27 to 78 way
- Male straight p.c., 90° p.c. and crimp terminations
- Female straight p.c., flexi circuit and crimp terminations

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

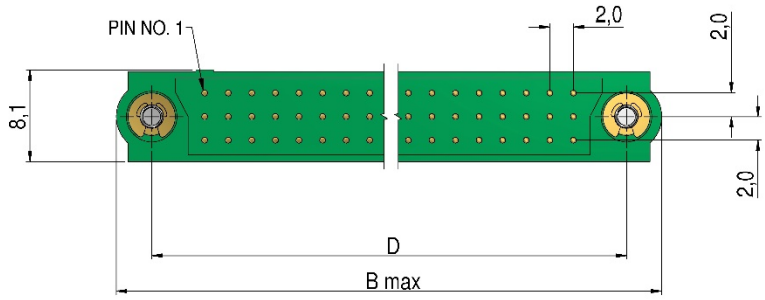
ELECTRICAL		
Current	Individual contacts (in insolation)	at 25°C Tamb. 3.3A max. at 85°C Tamb. 2.6A max.
	All contacts (simultaneously)	at 25°C Tamb. 3.0A max. at 85°C Tamb. 2.2A max.
Working voltage		120V d.c. or a.c. peak
Proof voltage		360V d.c. or a.c. peak
Contact resistance	initially	10mΩ max.
	after conditioning	13mΩ max.
Insulation resistance	initially	1000MΩ min.
	after conditioning	100MΩ min.

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

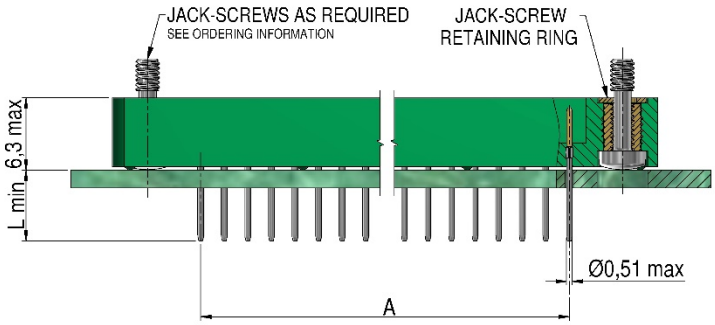
ENVIRONMENTAL	
Climatic category	55/125/56
Vibration severity General	10Hz to 2000Hz 0.75mm/98m/s² ($10g_n$) duration 6h
Vibration severity Additional	13.3Hz to 2000Hz random with superimposed sinusoids, duration 15min each of 4 planes. No intermittencies measured when using an H.S.L.I. (High Speed Logic Interrupt) detector with a trip threshold of 2ns
Bump severity	390m/s² ($40g_n$) 4000 ± 10 bumps
Shock severity	981m/s² ($100g_n$) for 6ms
Acceleration severity	490m/s² ($50g_n$)

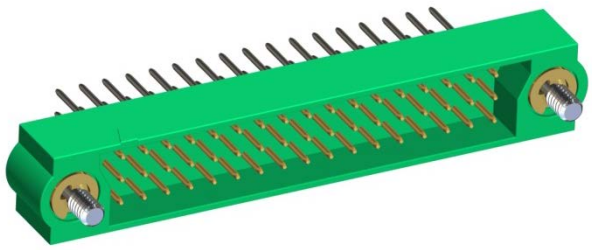
MICRONECTOR 300
STYLES AVAILABLE

MALE STRAIGHT P.C. TERMINATION TYPE T, N, X, Y & Z

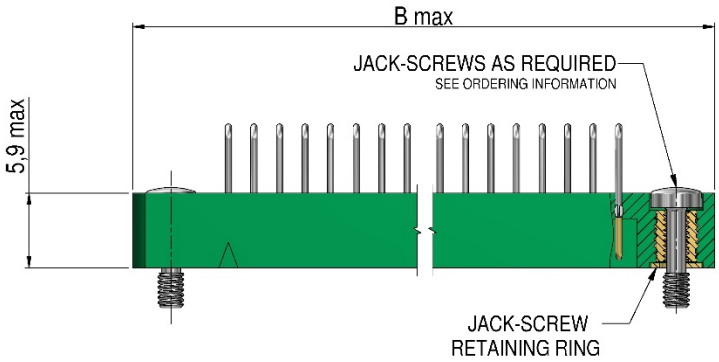


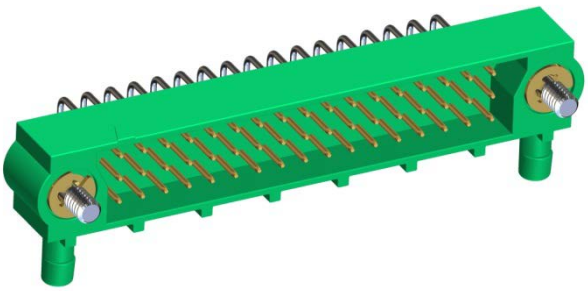
Type	L (min)
T	3.1
N	7.4
X	9.5
Y	5.7

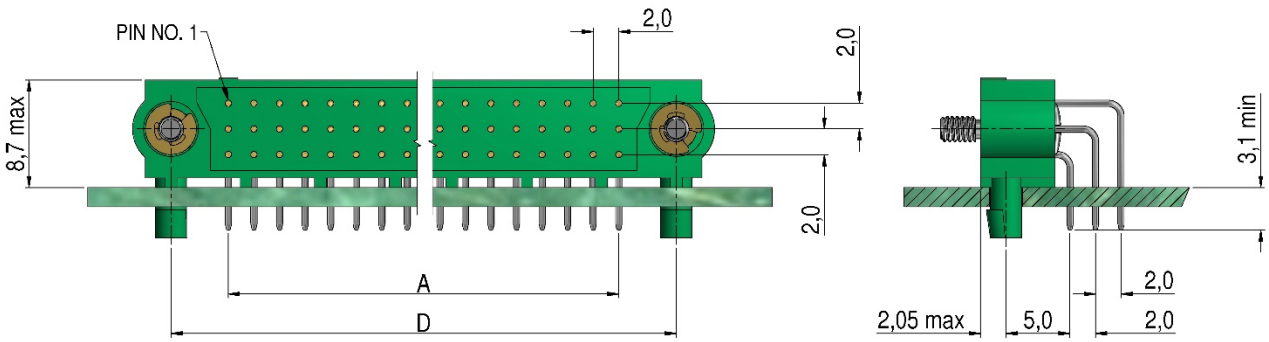




MALE 90° P.C. TERMINATION TYPE L

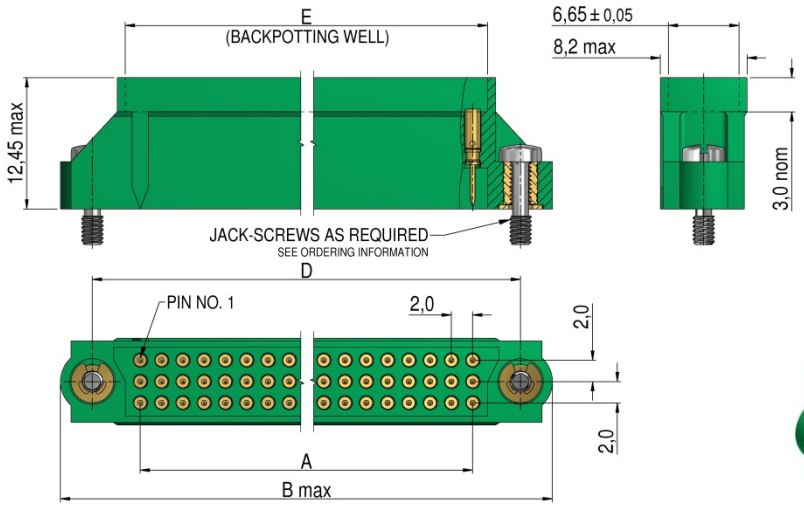


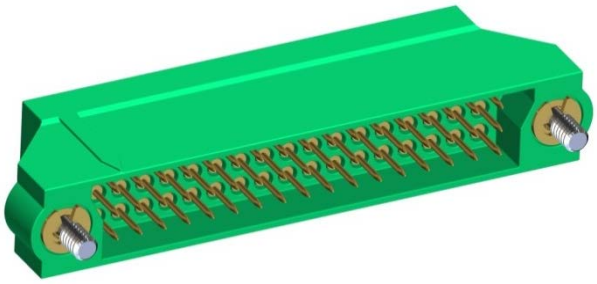




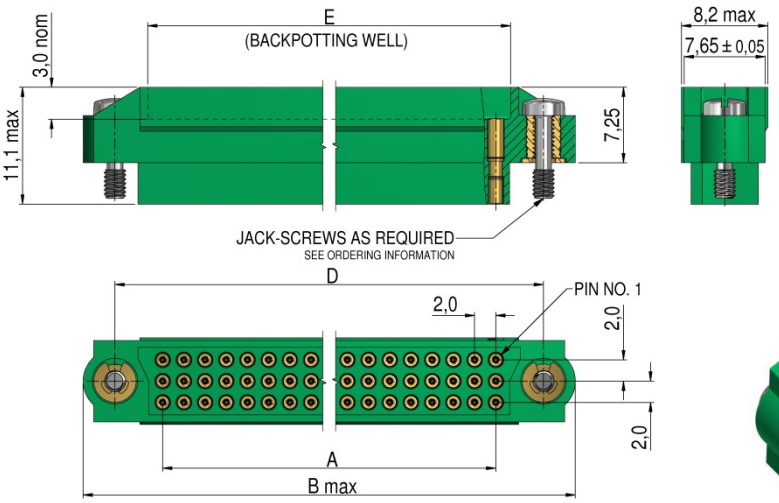
MICRONECTOR 300
STYLES AVAILABLE

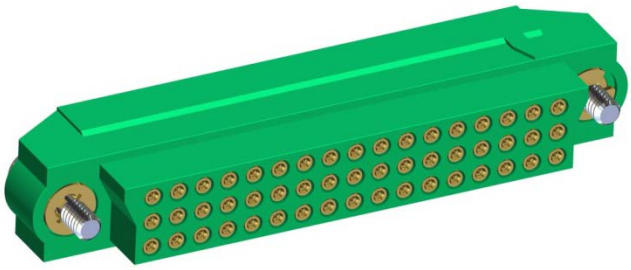
MALE CRIMP TERMINATION TYPE C



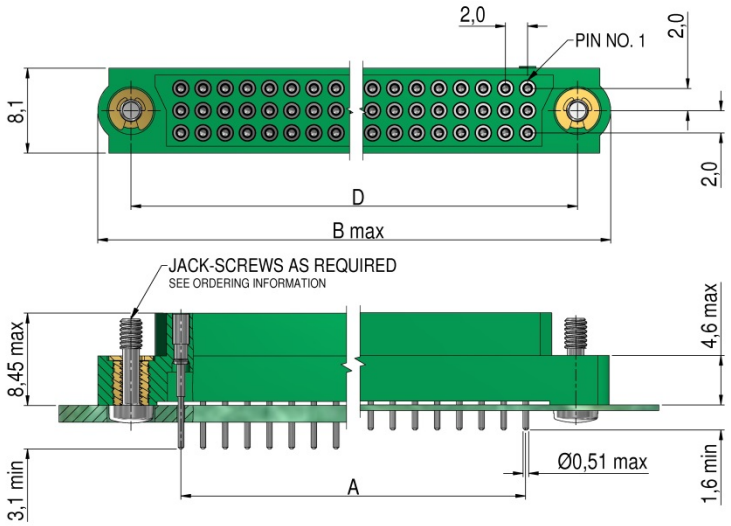


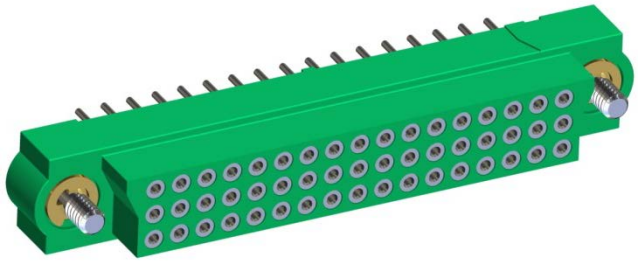
FEMALE CRIMP TERMINATION TYPE C & D





FEMALE STRAIGHT P.C. TERMINATION TYPE T & N

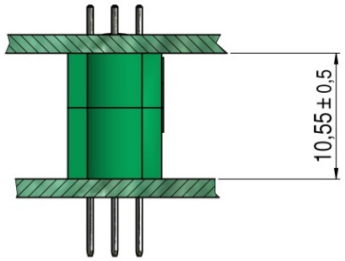




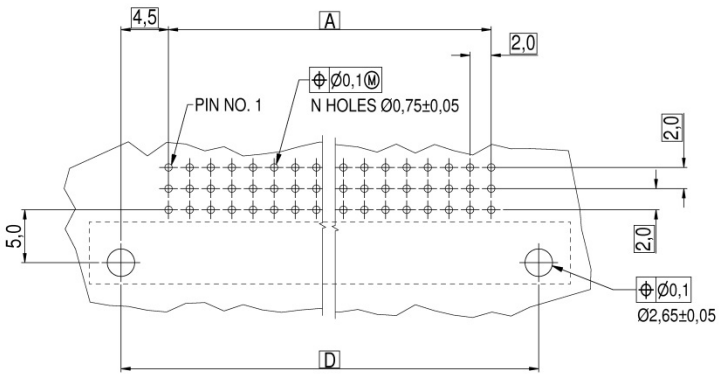
MICRONECTOR 300
COMMON DIMENSIONS / MOUNTING DETAILS

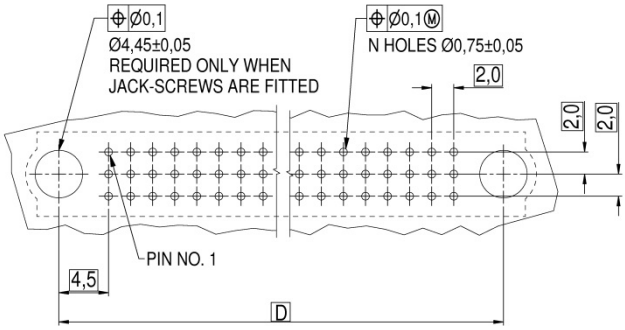
CONTACT ARRANGEMENT			
Dimensions	**27**	**51**	**78**
A	16	32	50
B max	31.1	47.1	65.1
D	25	41	59
E±0.1	19	35	53

SPACING BOARD - BOARD



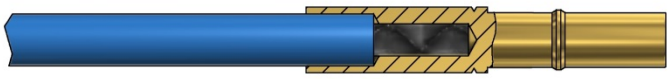
MOUNTING DETAILS TERMINATION TYPE T & L

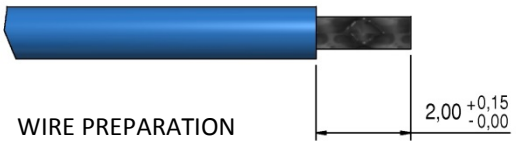




CRIMP DETAILS

Termination type	Crimp barrel accommodation	Wire Size/Crimp Tool Setting			
		22 A.W.G.	**24 A.W.G**	**26 A.W.G.**	**28 A.W.G.**
C*	24-28 A.W.G.	-	7	6	6
D	22 A.W.G.	6	-	-	-





WIRE PREPARATION

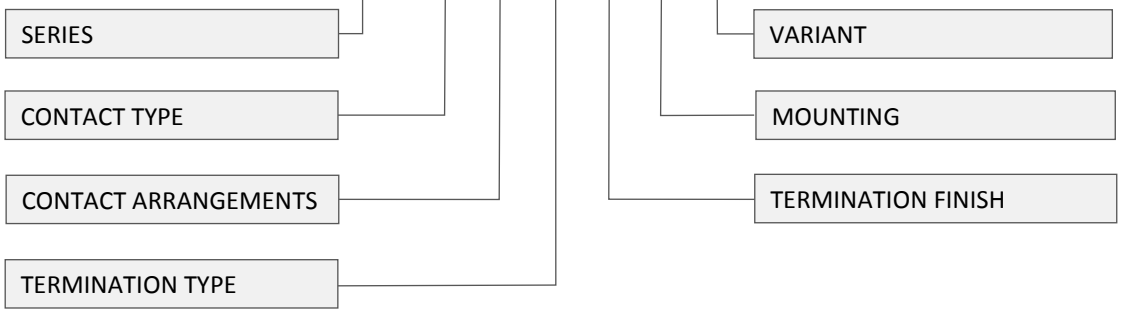
Preferred wire type BS G 210 (Type A)

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

Note: A crimp contact withdrawal tool (MP6808) is available as an optional extra for the removal of contacts from the moulding. However, if any contacts are removed, the moulding MUST be replaced.

MICRONECTOR 300
ORDERING INFORMATION

PART NO. EXAMPLE 301 M 27 T 03 A 00



SERIES
301 – Three row

CONTACT TYPE
M – Male
F – Female

CONTACT ARRANGEMENT
27 – 51 – 78

TERMINATION TYPE
L – 90° p.c. (male only)
T – Straight p.c.
N – Straight p.c. (short for flexi circuits)
X – Straight p.c. (male only)
Y – Straight p.c. (male only)
C – Crimp 24 – 28 A.W.G.
D – Crimp 22 A.W.G. (female only)

TERMINATION FINISH
01 – Gold (standard for crimp)
03 – Tin alloy (standard for p.c.)

MOUNTING
A – p.c.b
C – Cable

VARIANT
00 – Standard
01 – With Jack-Screws
Jack-Screw Assy (pair) – Part No. MP 6822

TOOLS	
Tool name	**Order code**
Hand Crimp Tool 8 Indent Die Set	MP22520/2-01 (BS Style 5310-3A-300)
Contact Insertion Tool	MP 6811 (BS Style T5748-19)
Contact Withdrawal Tool	MP 6808 (Female) MP 6809 (Male)
Crimp Tool Positioner	MP 6823

MICRONECTOR 300
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

1. FOLLOW THE GUIDELINES GIVEN.
2. ALWAYS PROTECT LIVE CIRCUITS AND NEVER DISCONNECT A LIVE CONNECTOR.
3. NEVER USE A DAMAGED CONNECTOR.
4. NEVER BURN DISCARDED CONNECTORS.