





**HUBER+SUHNER** 

**MEUTRIK** HellermannTyton

ITW McMurdo

Connectors

**NICOMATIC** 

### ABOUT US FC LANE ELECTRONICS





Established in 1966

Massive stock

Unbeatable service



**Franchised distributor** and stockist of electrical connectors and accessories

Together, **Lane Electronics and Weald Electronics** make up the successful, privately owned Lodge Group. As both a connector distributor and a connector manufacturer, the Lodge Group exists to provide all sectors of industry with an unrivalled portfolio of interconnection products for applications where performance, quality and availability are key.

Lane Electronics is a specialist distributor for many of the industry's leading connector manufacturers and is the ideal source for those who need connectors and connector accessories for applications right across aerospace, defence, mining, medical, test and measurement, entertainment and general industry. Lane Motorsport is a dedicated division of Lane Electronics supporting all types of racing platforms with easy access to a comprehensive package of high performance and light-weight interconnection solutions.

#### What makes Lane Electronics the preferred choice for connector buyers and specifiers?



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Massive stockholding of connectors, connector accessories and component piece-parts In-house assembly of our most popular connector ranges for enhanced availability More than 90% of standard ranges are available next day through stock and assembly No minimum order quantity or minimum order value on stocked items

Many products are available on-line at www.fclane.com with 24hr access

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## ABOUT US WEALD ELECTRONICS





Manufacture

Inspection and test

Design and development

## **Manufacturer** of high quality military and industrial connectors and accessories



**Weald Electronics** is one of the UK's leading manufacturers of electrical connectors for defence and high performance industrial interconnection applications. Weald Electronics specialises in high quality circular bayonet coupling and screw coupling connectors as well as subminiature plastic bodied circular connectors and composite pcb-level rectangular connectors.

Connector accessories are providing an increasingly important role in the assembly, performance and reliability of interconnect systems and Weald Electronics provides a dedicated range of backshells, metal protective covers and nut plate assemblies for the most popular circular connector ranges.

With its own design, manufacturing and test facilities, Weald Electronics can develop, assemble and test high performance interconnection solutions to meet a customer's specific requirements on surprisingly short lead times. Custom services include Optical, LF and RF cable assembly development and connector modifications including changes in dimensions and materials, reducing weight and potting/encapsulation.

Full details of all ranges can be found at our websites:

fclane.com - Main website with all our products on display and our e-commerce store wealdelectronics.com - Manufacturer of high quality military and industrial connectors lanemotorsport.com - Lane Motorsport division website dedicated to the motorsport industry



## CIRCULAR CONNECTOR RANGES WEALD ELECTRONICS



**(Jeald** 

#### LMH MIL-DTL-26482 SERIES I

- Manufactured to IECQ-CECC spec. BS/CECC 75201-003 and BS 9522 F0017
- Designed to perform to the requirements of MIL-DTL-26482 series 1 and Patt. 105
- Bayonet locking, multicontact connectors with solder contacts
- Wide variety of shell styles, sizes and contact arrangements
- Working voltage up to 1500V DC or AC peak
- Free shells available with grounding fingers
- RoHS Compliant plating finishes available
- Accessories available include J sealing glands, protective caps and screen termination
- PCB contacts for fixed styles
- EMC 360° screen termination available

Typical part number: LMH 02A 1419PN

#### LMF

- Multicontact circular connectors
- Aluminium shells with fine thread coupling
- Brass shells with coarse thread coupling IP67 rating
- Plastic inserts For DC and low frequency applications
- Bulkhead styles including thermocouple contacts available
- 1 25 non-removable solder contacts (18 arrangements)
- Variety of accessories including EMC 360° screen termination available
- Clean finish brass extensively used in the nuclear industry for glove-box application
- Good environmental protection 5 60A current rating
- RoHS Compliant plating finishes available

Typical part number: LMF/1/40225/520

### LMG

- Manufactured to BS 9522 F0014
- Multi-contact circular connectors with solder contacts
- Aluminium shells with fine thread coupling IP67 rating
- Brass shells with coarse thread coupling Rugged construction
- Polychloroprene inserts
- For DC and low frequency applications
- 3 60A 2 26 non-removable solder contacts (19 arrangements)
- RoHS Compliant plating finishes available
- Wide variety of accessories allowing 360° braid trap termination and good environmental protection, including PG-type backshells

Typical part number: LMG/1/07227/220

#### LMG HEAVY DUTY

- Extremely rugged
- Tried and tested military contact technology
- High shock and vibration capabilities
- Environmentally sealed from IP67 to IP69K
- In-line, panel and cable mounting styles
- 2 to 26 contacts
- 1 to 60A current rating
- Wide range of backshells available
- Ideal for applications where high strength and reliability is essential

Typical part number: LMG/1/91025/715









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#### CIRCULAR CONNECTOR RANGES WEALD ELECTRONICS, EATON

#### MG MIL-DTL-5015 REVERSE BAYONET COUPLING

- Based on MIL-DTL-5015 planforms
- Intermateable with VG95234 and Pattern 121B connectors
- Tried and tested military contact technology
- High shock and vibration capabilities
- Environmentally sealed from IP67 to IP69K
- In-line, panel and cable mounting styles
- 2 to 26 contacts
- 1 to 60A current rating
- Wide range of backshells available
- Ideal for applications where high strength and reliability is essential

Typical part number: MG 02R 10SL 4P

#### LMJ MIL-DTL-5015 THREADED COUPLING

- Designed to meet the requirements of MIL-DTL-5015
- Aluminium alloy shells with threaded coupling and neoprene insert
- Rated working voltage 250 4200V DC, at sea level 200 3000V AC rms
- 1 104 solder/crimp contacts
- 10 150A current rating
- IP 67 rating can be achieved
- EMC 360° screen termination available
- PG type backshells available
- Alternative plating finishes available including Nickel, RoHS Compliant Zinc Cobalt Olive Drab and Zinc Cobalt Black
- 13 shell sizes

Typical part number: LMJ 3102R 10SL 3P

#### **8LT MIL-DTL-38999 SERIES I**

- Aluminium lightweight scoop-proof, high density connectors with bayonet coupling
- Qualified to 500 mating cycles
- Signal, power, coax, triax, quadrax and optical contacts available
- Crimp removable contacts
- Alternative plating finishes available including Cadmium, Nickel and RoHS Compliant Zinc Nickel
- Wide range of piece parts held in stock to allow assembly to order with short lead times
- Full QPL Certification available at no extra cost

Typical part numbers: MS27467T15B35PN; 8LT515B35PN

#### 8D MIL-DTL-38999 SERIES III ALUMINIUM

- Lightweight scoop-proof, high density connectors with tri-start, self-locking screw coupling
- Qualified to 500 mating cycles
- Signal, power, coax, triax, quadrax and optical contacts available
- Wide range of piece parts held in stock to allow assembly to order with short lead times
- Full QPL Certification available at no extra cost
- Alternative finishes available including RoHS Compliant Zinc Nickel and Zinc Cobalt plating

Typical part numbers: D3899920WB35PN; 8D011W35PN; EN3645W0BN35MN











#### CIRCULAR CONNECTOR RANGES EATON



- Super lightweight connector, 25% to 30% lighter than the standard aluminium connector
- Qualified up to 1500 mating cycles
- Corrosion resistant (2000 hours salt spray)
- Scoop-proof, high density connectors with screw coupling
- Signal, power, coax, triax, quadrax and optical contacts available
- Cadmium and Nickel plated shells
- Wide range of piece parts held in stock to allow assembly to order with short lead times
- Full QPL Certification available at no extra cost

Typical part numbers: D3899926JA35SN; 8D509J35SN; EN3645J6AN35FN; BACC63CT935SN

#### 8D MIL-DTL-38999 SERIES III STAINLESS STEEL

- Stainless steel firewall scoop-proof, high density connectors with exclusive self locking system eliminates unscrewing during high vibration
- Qualified to 500 mating cycles
- Signal, power, coax, triax, quadrax and optical contacts available
- Wide range of piece parts held in stock to allow assembly to order with short lead times
- Full QPL Certification available at no extra cost
- Passivated and nickel plated finishes available

Typical part numbers: D3899926KA98SN; 8D509K98SN; EN3645K6AN98FN

#### 8D MIL-DTL-38999 SERIES III HIGH DENSITY

- Derived from MIL-DTL-38999 Series III
- Shells Aluminium, Composite, Stainless Steel
- 4 shell sizes / contact layouts: 09-12, 11-26, 13-43 and 15-68
- Variety of finishes offered
- Up to 68 Gold Plated Copper Alloy #26 contacts
- Double flange and clinch nut versions





Typical part numbers: 8D509W12PN; 8D013F43SN

#### 8D/8LT/MIL-DTL-38999 DERIVED SERIES

- 8D/38999 Series III Double Flange
- 8D/38999 Series III Integrated Backshell
- 8D/38999 Receptacle with Clinch Nuts or Helicoils
- 8LT/8ST/8D Series with Reinforced Sealing
- 8D / 38999 Series III with HF/BMA Coaxial Contacts



Typical part numbers: 8D8711C17W35PN; 8DA513Z35PN, 8D34S17F35SN



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## **CIRCULAR CONNECTOR RANGES** EATON, LANE ELECTRONICS

#### JVS MARINE BRONZE BS/CECC 75201-002

- Approved to IECQ-CECC spec BS/CECC 75201-002
- Intermateable and intermountable with standard D38999 series III
- Signal, power, coax, triax, quadrax and optical contacts available
- Outstanding salt water corrosion resistance
- Signal and power contacts sizes 22D, 20, 16, 12, 8 and 4
- Scoop-proof nickel aluminium bronze alloy shells
- Shell-to-shell continuity by grounding fingers
- Additional seals allow protection to 3.9 meters
- Wide range of piece parts held in stock to allow assembly to order with short lead times

Typical part numbers: JVS16A1135PN; CECC 75201-002-AB35MCNA01G

#### 8D MIL-DTL-38999 SERIES III QUADRAX

- Robust MIL-DTL-38999 compliant threaded coupling system for use in high vibration applications
- Perfect connector solution for 100Mbit/s Ethernet or 150 $\Omega$  fibre channel in harsh environments
- Contacts available in both  $100\Omega$  and  $150\Omega$  versions
- Contact size 8 and layouts in acc. with the European norm
- Contacts fit standard #8 cavities of 8D layouts (including mixed size layouts)
- Versatile shell materials: aluminium, composite, stainless steel and bronze
- Alternative plating finishes available including RoHS Compliant

Typical part numbers: 8D0C21W84PN308; 8D0011W81PN620

#### 8D MII - DTI - 38999 SERIES III ELIO

- Elio<sup>®</sup> high speed fibre optic connectors
- Housed in the circular MIL-DTL-38999 connector platforms
- Perfect connector solution for high speed network in harsh environments
- 1 24 contacts
- Easy to terminate and install contacts, with no special tooling required
- Versatile shell materials: aluminium, composite, stainless steel and bronze
- Alternative plating finishes available including RoHS Compliant Zinc Nickel and Zinc Cobalt
- Termination service available

Typical part number: 8D0E13F04BN

#### FIBRE OPTIC CABLE ASSEMBLIES

- Termination and polishing of ELIO high speed fibre optic connectors for use in 8D Series MIL-DTL-38999 connectors
- 8D Series / MIL-DTL-38999 connector platforms with 1 to 24 contacts in a wide variety of shell materials and finishes
- ELIO fibre optic solution can handle data speeds from several Mbit/s up to several Gbit/s thanks to its excellent optical performance
- Simplex, duplex and multicore cables terminated with ELIO to ELIO, ELIO to SC, LC, FC, ST or any combination
- Latest IPC certification for fibre cable assembly



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## MIL CIRCULAR HERMETIC

EATON, LEMO, WEALD ELECTRONICS

• High Sealing - Leak rate less than 10-7cm3/s at 1 bar pressure difference. Less than 1 cm3 leaks in 4 months.

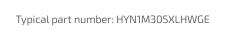
**CIRCULAR CONNECTOR RANGES** 

- RoHS compliant No lead content
- Rugged Excellent thermal shock performance. High corrosion resistance: up to 500h salt spray
- Space saving No need of additional rear accessories. 1/3 shorter than watertight connector equivalent. Solder mount option for full equipment integration
- Large offer, adopted to each specific need Large connectors offer available in circular as well as rectangular ranges: EN2997, MIL-C-26482 Series I and II, EN3646, MIL-C-38999, micro38999, D-Sub

Typical part numbers: D3899921YA35PN; 8D0Y1135PN

#### **M SERIES** VACUUM TIGHT

- Innovative potting material
- Vacuum tight sealing with ultra low leak rates over a broad temperature range -55° to +150°C
- Optimized PCB tails enabling easier PCB routings even on high density configurations
- Improved ground connection with standard ground pins or special anti vibrations threaded holes for "screw through" PCB fixation
- The highest density vacuum tight ratchet coupling connectors on the market
- Unmatched performance in optical enclosures or high-altitude applications



#### LMV MAINS POWER

- Manufactured to IECQ-CECC spec BS/CECC 75201-004 which includes the safety requirements of BS EN 60950 for safe use in mains applications and marked assemblies
- Solder contacts
- Finger probe proof, live and neutral contacts
- Various shell styles and accessories
- Two shell sizes suitable for direct connection in 250V applications
- Current rating 7.5, 20 and 32A
- RoHS Compliant and cadmium free versions available as standard
- EMC 360° screen termination available
- Brass shells
- Leading earth

Typical part number: LMV 2154-1M3-M0, LMV 2155-21M4-F0

#### LMH POWER

- Designed to perform to the requirements of MIL-C-26482
- Bayonet locking, multicontact connectors with solder contacts
- 4 shell sizes and various styles
- 2 5 contacts (6 contact arrangements)
- Maximum Current Rating at 85°C per individual contact in isolation:
- Contact size 20 7,5A
- Contact size 12 23A
- Contact size 8 45A
- Working voltage up to 500V DC or AC peak
- Free shells with grounding fingers available
- RoHS Compliant plating finishes

Typical part number: LMH 02A 1404PN





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## CIRCULAR CONNECTOR RANGES EATON, LEMO



#### 8D MIL-DTL-38999 SERIES III POWER

- Based on the circular MIL-DTL-38999 connectors
- Max current rating: 45 and 80A
- Qualified to 500 mating cycles
- Versatile shell materials: aluminium, composite, stainless steel and bronze
- Alternative plating finishes available including RoHS Compliant Zinc Nickel and Zinc Cobalt plating
- Wide range of piece parts held in stock to allow assembly to order with short lead times



Typical part number: 8D021W48PN

#### 8D MIL-DTL-38999 SERIES III HIGH POWER

- Threaded coupling connector with single power contact
- 3 shell sizes available:
- size 19: up to 500A
- size 23: up to 700A
- size 25: up to 750A
- Superior contact technology equipped with a silver plated braid
- Pin contact is equipped with a plastic cap to prevent electrical shock
- RoHS Compliant Zinc Nickel and Zinc Cobalt plating finishes
- Wide range of piece parts held in stock to allow assembly to order with short lead times

Typical part numbers: 8D025WH1PNR1A; 8D525WP1SNR1C

#### **M SERIES** HIGH POWER

- Maximum current rating from 140A to 430A
- 360° screening for full EMC shielding
- Temperature range -55°C to 200°C
- Compact design for space savings
- Ratchet-coupling mechanism
- High shock and vibration resistance
- Oil and fuel resistant
- Scoop proof and IP2X finger protection
- Alternative housing material: Brass for 1000 hours salt fog resistance
- Threaded option for MIL-DTL-38999 backshells

Typical part numbers: FGS3MH14XLM; PHS3MH14XLC

#### **8STA** POWER

- Size 4 contact for a wide range of wire sizes: Size 8, 10, 16, 25 and 35 mm<sup>2</sup>
- Easy visual wire identification: Coloured band on contact
- Allow the use of small wire sections: Reducer for wires 8 and 10  $\rm mm^2$  in contact barrel 16  $\rm mm^2$
- Ideal for high power applications: Up to 200A continuous (12-01 specif. 261)
- Space and cost saving with mixed connectors: Only one connector instead of 2 to transmit signal and power



Typical part number: 8STA01201PN261



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## CIRCULAR CONNECTOR RANGES



#### **8STA** STANDARD

- Rugged Aluminium body to provide long service in the harshest environments
- Positive locking mechanism with locked colour indicators
- 5 shell styles and 13 shell sizes
- Up to 128 contacts
- 6 or 7 colour coded keyway orientations
- Conductive black zinc or nickel plated
- Sealed to IP67
- Temperature range: -55°C to +175°C
- Integrated backshell for heat shrink boot
- Wide range of piece parts held in stock to allow assembly to order with short lead times

Typical part numbers: 8STA01204PN; 8STA61035SN

#### **8STA** HIGH DENSITY

- Derived from MIL-DTL-38999 and JN1003
- Available in 7 shell sizes: 02-05; 04-06; 06-09; 08-12; 10-26; 12-43; 14-68
- Up to 68 size 26 contacts for wires sizes 24 to 30 AWG
- 3A contact rating
- Integral Backshell
- Crimp and PCB tail contacts
- Specials can be assembled on very short lead times





Typical part numbers: 8STA61243PN; 8STA01468SN

### **8STA** PCB

- Derived from MIL-DTL-38999 and Eurofighter JN 1003, 8STA connectors use the extensive SOURIAU range of 38999 medium and high density signal contact layouts
- Rugged aluminium body to ensure long service life in the harshest environment
- 8STA PCB connectors are available in shell sizes 02 to 24 (12 sizes)
- 100% scoop proof
- Available with clinch nut
- 6 colour coded keyway orientations

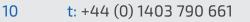
Typical part number: 8STA21235PN571

#### **8STA** BLIND MATING

- Blind mating solution for quick connection in hard-to-reach areas
- Specific 8STA plug, ompensating for misalignment in 3 axes
- Easy and fast connection without any coupling / uncoupling between float-mounting unit and fixed unit
- 100% Scoop proof
- Available in sizes 10, 12, 14 and 16
- All layouts according connector shell size
- Mandatory mating part: standard jam nut receptacle 8STA7



Typical part number: 8STA61235SN566



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## CIRCULAR CONNECTOR RANGES

#### **8STA** HERMETIC AND FUEL IMMERSIBLE

#### Hermetic shell size 02

- The smallest hermetic circular 5 w PC tail connector on the market
- Lightweight (3 gm max) Suitable for welding directly to sensor bodies
- Hermetic glass bead (1.1-7 cm<sup>3</sup>/s) Hermetic Fuel Tank
- Hermetically sealed connector: 1.10-7 cm<sup>3</sup>/s at 15PSI
- Withstands pressure differential without loss of electrical performances
- Viton<sup>®</sup> interfacial seal

#### Fuel Immersible

- Continuous immersion without loss of performance: fuel resistant insert
- Excellent sealing on panels

Typical part numbers: 8STA1Y0205PN170; 8STA7Y1098PN022; 8STA00835PN022

#### **8STA** QUICK RELEASE FOR STEERING BOSS SYSTEM

- Available in 2 shell sizes: 10 and 12
- Standard insulators shell sizes 10 and 12 available
- Rugged aluminium body to ensure long service life in the harshest environment
- 100% scoop proof
- Rated to IP67
- Resistant to high levels of shock and vibration



Typical part numbers: 8STA01235SN518; 8STA61235PN518

#### **8STA** ULTRA MINIATURE SHELL SIZE 01

- Ultra compact design 20% smaller than size 02 connector
- Perfect solution for size and weight reduction in extreme vibration environments
- 3 contacts #26 for AWG 24 to 30
- 7 colour coded keyway orientations
- Boot termination feature
- PCB option available
- Well proven design according to 8STA standard



#### 8DA micro38999 THREADED COUPLING

- Miniaturization of MIL-DTL-38999 Series III
- For applications requiring high performance and miniaturized connectors for extreme environments
   3 plating finishes
- Triple-start thread with ratcheting system (size 5 and 7)
- Plug, in line, square flange and jam nut receptacle available
- Qualified to 500 or 1000 mating cycles (dependent upon material)
- High grade thermoplastic insert Removable contacts #22D and #26
- Silicone elastomer grommet and sealing from -55° to 175°C  $\,$
- Integrated backshell EMI ring (for size 5 and 7)
- Fluid resistant Scoop-proof 3 shell sizes (3, 5 and 7)

Typical part number: 8DA503W05PN





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## CIRCULAR CONNECTOR RANGES EATON, LEMO



#### 8BA micro38999 BREAK AWAY/PUSH-PULL

- Break away: quick disconnect
- For applications requiring high performance and miniaturized connectors for extreme environments
   3 plating finishes
- Plug, in line and jam nut receptacle available
- Qualified to 500 or 1000 mating cycles (dependent upon material)
- High grade thermoplastic insert
- Removable contacts #22D and #26
- Silicone elastomer grommet and sealing from -55° to 175°C
- Integrated backshell
- Fluid resistant Scoop-proof 3 shell sizes (3, 5 and 7)

Typical part number: 8BA105F35SN

#### 8LTA micro38999 BAYONET COUPLING

- Miniaturization of MIL-DTL-38999 Series I
- For applications requiring high performance and miniaturized connectors for extreme environments
   3 plating finishes
- Quick bayonet locking Removable contacts #22D and #26
- Plug, in line, square flange, oval flange and jam nut receptacle available
- Qualified to 250 or 1000 mating cycles (dependent upon material)
- High grade thermoplastic insert
  Integrated backshell
- Silicone elastomer grommet and sealing from -55° to 175°C
- 3 shell sizes (3, 5 and 7)
- Fluid resistant Scoop-proof

Typical part number: 8LTA103Z35PA

#### F SERIES PUSH-PULL

- Push-Pull self-latching IP67 protection
- Multipole 2 to 68 contacts
- Multi or mixed contacts including mixed layouts and fibre optic contacts
- 8 sizes 4 keying options
- Compact and lightweight
  Over 12 shell styles
- Temp. range -50°C to 200°C Shielded
- Crimp or PCB contacts
- High vibration resistance
- High shock resistance
- Dark finish

Typical part numbers: FGN06F305YLC; PHN0F305XLM

#### **M SERIES** THREADED

- Multipole 2 to 114 contacts, including mixed layouts
- Fibre optic contacts and USB interface options
- Compact and lightweight
  Secure ratchet coupling mechanism
- 12 shell styles 6 keying options
- IP68 when mated (2m, 15hrs) Waterproof when unmated options
- High levels of corrosion resistance Oil and fuel resistant
- Temp. range -50°C to 200°C 360 degree shielded
- Integral or threaded backshells Crimp or PCB contacts
- High shock and vibration resistance (gunfire test)
- Dark finish

Typical part numbers: FMN1M305XLC; PMN1M305XLM





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## CIRCULAR CONNECTOR RANGES EATON, ALLIED, TE CONNECTIVITY, POSITRONIC



### **8TA LOW PROFILE**

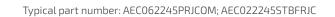
- Rugged aluminium body to ensure long service life in the harshest environment
- Compact low profile derived from MIL-DTL-38999 Series 2
- 6 gold plated #22D contacts
- Environment sealing from interfacial seal and rear grommet
- Positive locking mechanism with locked colour indicators 3 keyway orientations
- Not scoop proof
- Conductive black zinc plating

Typical part number: 8TA60898SN; 8TA10835PN

#### RJ45 VG95234

- Meets the requirements of VG95234
- RJ45 connection either side of the panel
- IP67 protection
- More rugged than MIL-DTL-26482
- Lower cost than D38999 alternatives
- Aluminium Alloy Shell
- Nickel Plated as standard other finishes on request
- Choice of backshells on request





#### D38999 USB/RJ45

- High reliability USB and RJ45 Connector Systems for harsh environments
- MIL-DTL-38999 series III derived polarized shell, with fast and secure coupling
- Data Transmission:
- USB High-Speed (2.0) 480Mbit/s
- RJ45 Cat 5e per ISO/IEC 11801 or RJ45 Cat 6a (10Gb)
- Sealed to IP68 for fluid and dust laden environments
- High levels of shock, vibration and mechanical impact provtection
- Full 360°EMC and mechanical protection
- Fully enclosing aluminium, marine bronze, stainless steel titanium and composite shells

Typical part numbers: PC4B0002C19N1B; PC4B010015NX1C

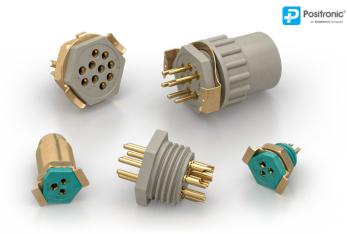
## GH/LGH/MGH

- "Twist Spring" locking device
- Miniature and microminiature sizes available
- Solid machined contacts for high reliability
- Available in straight solder and solder cup terminations
- Variety of available cable adaptors
- Range of contact variants
- Contact current ratings to 7.5A nominal

We reserve the right to supply an alternative product from a different manufacturer. Any alternative will be dimensionally identical and will have the same performance specification.

Typical part numbers: MGH3FSCLRH7; GH5FSCLRH16







#### LMA19 EMI/RFI HEAT SHRINK BOOT BACKSHELLS

- Compatible with MIL-DTL-38999 / D38999 Series III and IV (H interface) or MIL-DTL-26482 Series I / LMH Range (D interface) circular connectors
- Straight and angled / 90 deg. variants
- Made of Aluminium, Stainless Steel or Nickel Aluminum Bronze
- Provide strain-relief and cable support to prevent bending or overflexing
- Overall 360° screening against EMI/RFI interference
- Protect the effectiveness of the cable, sealing against water and dirt ingress
- Two-part components allow uncoupling for repairs without damaging the boot
- Many sizes and plating finishes available from stock
- Tool-free constant force spring or band strap provided

Typical part numbers: LMA19H1-13-05-1-B-01, LMA19D1-16-08-1-C-02

#### LMA20 BACKSHELLS FOR FIBRE OPTIC CONNECTORS

- Compatible with MIL-DTL-38999 Series III Fibre Optic circular connectors
- Designed to accomodate the push back of the cable during the connector mating
- Made of Aluminium, Stainless Steel or Nickel Aluminum Bronze
- Provide strain-relief and cable support to prevent bending or overflexing
- Protect the effectiveness of the cable, sealing against water and dirt ingress
- Two-part components allow uncoupling for repairs without damaging the boot



Typical part numbers: LMA20H1-13-1-B, LMA20H1-09-2-Z

#### LMA67 ULTRA LOW PROFILE BACKSHELLS

- Compatible with MIL-DTL-38999 Series III and IV (H interface) or MIL-DTL-26482 Series I / LMH Range (D interface) circular connectors
- Made of Aluminium, Stainless Steel or Nickel Aluminum Bronze
- Low profile design to save space and weight
- Provide strain-relief and cable support to prevent bending or overflexing
- Protect the effectiveness of the cable, sealing against water and dirt ingress



Typical part numbers: LMA67H1-15-1-B; LMA67D1-22-1-ZB

#### LMA BACKSHELLS FOR MIL-DTL-5015/26482 CONNECTORS

- Strain relief cable clamps
- J sealing glands
- A endbell adaptors
- Grommet nuts
- 360° screened cable terminations



Typical part numbers: LMA1038-08-02-00; LMA1110-16-00-101; LMA3057-12A

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## **BACKSHELLS / ACCESSORIES** EATON, GLENAIR, TE CONNECTIVITY, WEALD

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## **BACKSHELLS AND ADAPTORS**

A complete range of connector accessories and conduit systems suitable for aerospace, military and commercial connectors.

- Straight, 45° and 90° options \$- EMI / RFI Shielding
- Shrink boot adaptors
  Backshells without strain relief
- Band adaptors 
  Assembly tools
- Micro D backshells (MIL-C-83513)
- D subminiature backshells (MIL-C-24308)
- ARINC 600 backshells and accessories (MIL-C-81659)
- M85049 qualified accessories
- Available in aluminium and composite materials

Typical part numbers: 21F3001SK1604CN6; 24A1001SJ1604CN6

#### **BACKSHELLS AND ADAPTORS**

- A complete range of connector accessories suitable for a wide variety of connectors.
- Shrink boot adaptors Shorting cap backshells
- Extender and transition backshells G-Spring backshells
- Environmental and non-environmental backshells
- Qwik-Ty strain relief
- EMI/RFI backshells both environmental and non-environmental
- Banding and crimp ring screen termination backshells
- Micro D backshells
- D subminiature backshells
- Backshells without strain relief

Typical part numbers: M85049/88-09M03; M85049/48-13F

#### **BACKSHELLS AND ADAPTORS**

- Non screened and screened circular adaptors
- Machined from solid material
- Straight, 45° and 90° options
- Compatibile with MIL-Spec dimensions and performance
- Heat Shrink Kits
- For screened and unscreened options
- High screening performance (90dbs to 300MHz)
- Protection Covers, Blanking Caps and Dummy Receptacle

Typical part numbers: 91H1-17-08-1-C-HE200; BTH1-17-10-1-C-SB

#### LMA GASKETS, NUT PLATES AND OTHER ACCESSORIES

#### Gaskets

- Designed for two-hole flange mounted motorsport and MIL spec connectors
- Made from Neoprene or Viton® rubber
- Excellent resistance to motorsport fuels and fluids
- Electrically conductive version available

#### Nut plates

- Designed for two-hole flange mounted motorsport connectors
- Speed up connector installation in hard-to-reach locations
- Available in 16 sizes
  Anti-vibration / self-locking design
- Lightweight and corrosion resistant

Typical part numbers: LMA8684-02-25-00; LMA1071-08-00-00









**(Jeald** 

#### LMD7001/7002/7005/7006 PROTECTIVE CAPS

- Compatible with MIL-DTL-38999 / D38999 Series III and IV or MIL-DTL-26482 Series I / LMH Range circular connectors
- All parts machined from solid material for reliable strength and performance
- Stainless steel wire rope, chain or nylon cords
- Wide choice of material plating options available, including Stainless Steel and Nickel Aluminium Bronze
- Various attachment variants including rings, eyelets and crimp ferrules



#### LMD7003/7004 LIGHTWEIGHT MOTORSPORT PROTECTIVE CAPS

- Designed for bayonet coupling circular autosport / motorsport connectors, derived from MIL-DTL-38999 and JN1003
- Ultra-lightweight design (up to 40% lighter than standard design)
- 14 sizes and two types (for plugs and receptacles), including size 01
- Corrosion resistant aluminium body
- Anti-vibration locking design
- Shell machined from solid material for reliable strength and performance
- Available with or without flexible stainless steel 'micro' wire rope lanyards

Typical part numbers: LMD7003-06-02-335; LMD7004-08-00-005

### LMD7012 BLANKING COVERS/BACKSHELLS

- Designed to perform to the requirements of MIL-DTL-38999 series III specification
- All parts machined from solid material for reliable strength and performance
- Stainless steel wire rope, chain or nylon cords
- Wide choice of materials and plating options available





Typical part numbers: LMD7012-09-01-1A11-1; LMD7012-15-05-1B12-1

## LMA/MS25042/25043 AND VG95234 STYLE PROTECTIVE CAPS

- Protective caps for LMJ Range bayonet coupling and MG Range threaded coupling circular connectors,
- Designed to perform to the requirements of MIL-DTL-5015 specification
- Bayonet versions compatible with VG95234 connectors
- Made from aluminium alloy for reliable strength and performance
- Fitted with a stainless steel fixing chain



Typical part numbers: LMA25042-10D; LMA25043-16D; MG0212CC; MG0620CC

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#### **HEAT SHRINK BOOTS / TOOLING** HELLERMANN TYTON, GLENAIR







HellermannTyton

#### HEAT SHRINK BOOTS

- Heat-shrinkable strain-relieving boots for connector backshell to cable transitions
- Adhesive lined and plain shapes held in stock
- Other specialised shapes available in a wide range of sizes, materials and adhesive options
- Available for all circular connectors including Souriau 8STA, D38999 and micro38999 range



Typical part numbers: 154-42-G; 1156-4-G

#### SE28 HEAT SHRINK TUBING

- Available in several sizes from 3.2-1.6 to 101.5/51.0
- Flexible, high performance elastomeric heat shrink tubing
- Resistant to fuel and most fluids used in motorsport, aerospace and defence
- Provides a reliable protection against abrasion and mechanical damage
- Used in aerospace, defence, railway and automotive applications
- Very suitable for protecting cables and wire harnesses
- Alternative to Raychem DR 25 tubing

Typical part numbers: SE289548; SE28254127

#### HEAT SHRINK BOOTS

- Heat-shrinkable strain-relieving boots for connector backshell to cable transitions
- Innovative lightweight heat shrink boot technologies
- Heat shrink termination sleeves for grounding and EMC
- AS85049 shrink boots
- "Wye" and "Tee" wire harness routing transitions
- MIL qualified, Tacom approved and commercial



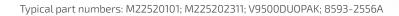


Typical part numbers: 770-0015104R; 770-0085201W1BLK

### ASSEMBLY TOOLING AND ADHESIVES

#### Assembly tooling for a wide variety of connectors

- Turrets
  Locators
- Dies Pliers
- Insertion and extraction tools
- Filler plugs
- HellermannTyton V9500 Epoxy Adhesive parts
- Epoxy gun V9500GUN
- Two-Compound Adhesive V9500DUOPACK
- Nozzle V9500NOZZLE







## **CIRCULAR MINIATURE CONNECTOR RANGES**

WEALD ELECTRONICS, NEUTRIK



#### SM/SMA

- Robust sub-miniature plastic bodied
- 1, 2 and 3 contacts
- 3, 7 and 12A current rating
- Working voltage 500V DC or AC peak
- Black or blue high density plastic mouldings
- Hoods suit either plugs or sockets
- Panel or cable mounting
- Identity discs in 6 colours available

Typical part numbers: SM1S; SMA1P

### SMC

- Robust sub-miniature plastic bodied
- 3 contacts
- 3A current rating
- Working voltage 500V DC or AC peak
- Black and white low density plastic mouldings
- Panel or cable mounting





Typical part number: SMC 310

#### opticalCON FIBRE OPTIC

- Rugged connector shells with secure locking mechanism
- Accommodates standard optical LC connectors
- Additional dust protection through lenses and sealing cover
- IP65 outdoor protection options
- Extensive range of accessories



Typical part number: NO2-4FDW-A; NAO-4MX-R-L

#### etherCON RJ45

- Rugged connector shells with secure locking mechanism
- Accommodates pre-assembled RJ45 connectors
- Provides additional sealing and cable strain relief
- IP65 outdoor protection options
- Extensive range of accessories



Typical part numbers: NE8MC; NE8FBH

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# CIRCULAR MINIATURE CONNECTOR RANGES



#### **XLR** CABLE AND CHASSIS

- IP65 sealing option offering protection for outdoor use
- Higher-performance options, including EMC screening
- Extensive range of accessories



Typical part numbers: NC3FXX; NL5MXX

#### speakON LOCKABLE LOUDSPEAKER

- Secure quick-mate and locking
- Touch-proof contacts
- Higher-performance options, including metal housings
- Wide range of accessories



Typical part numbers: NL2FX; NL4MPXX

#### powerCON THREE WAY AC

- High Impact materials, extremely robust and reliable
- Fast and easy locking system to prevent unintentional disconnect
- Excellent cable protection
- Premating earth contacts
- IEC 62368-1 compliant
- VDE, UL, cUL and JET approved
- IP65 outdoor protection options
- Extensive range of accessories



Typical part numbers: NAC3FCA; NAC3MPXXA-WOT

#### FIBERFOX EXPANDED BEAM FIBER OPTIC

- 5mm O/D (2CH) or 5,5mm O/D (4CH), PUR flame-retardant, halogen-free, bend tolerant cable
- Heavy-duty, connectors IP68 (even unprotected)
- Cables are direct prolongable (no couplers required)
- No special cleaning or measurement tools required
- Wear-free connectors: > 5000 mating cycles without any maintenance
- Compatible with all MIL-DTL-83526 systems



Typical part numbers: NKO2M3-FX; NO2M4DW-FX



# RF CABLES / TEST + MEASUREMENT 🔬 🙃 💐 🛪 🚥

## COAXIAL CABLES

Comprehensive range of RG and proprietary coax cables including:

- ENVIROFLEXTM family is halogen free and flame retardant
- RG 174, RG 316, RG 214, RG 223, KO 2252-D (RD 316), RG 400, RG 179
- SPUMA 195, 240, 400 and 600
- Foamed Polyethylene dielectric cables
- Low smoke zero halogen cables
  Low smoke triaxial cables
- Semi-rigid cable, (various sizes, materials and impedance)
- SUCOFORM Hand formable semi-rigid cable
- MULTIFLEX Flexible cable with semi-rigid characteristics
- CORRUGATED cables



#### **RF CABLE ASSEMBLIES**

- High-quality coaxial, fibre optic, power and signal cable assemblies and harnesses:
- Flexible RF assemblies up to 18GHz
- Semi-rigid and hand formable RF assemblies up to 18GHz
- Flame retardant
- Fibre optic patch cords
- Fibre optic cable assemblies
- Power and signal harnesses
- Multi-technology harnesses





#### MICROWAVE CABLES

High performance cable assemblies for various applications ranging from Test + Measurement to Military and Space grade:

- Low loss microwave cable assemblies
- High power
- Phase stable
- Armoured cables
- Low weight sucoflex 300 series (space grade etc...)
- Flexible High frequency >60GHz depending on types
- Phase matched sets
- EACON microwave cable with field terminable connectors up to 18GHz

#### TEST + MEASUREMENT

- Microwave test cables up to 8GHz
- Coaxial test leads
- EMC test leads
- Coaxial adaptors
- Quick mate adaptors
- Phase matched adaptors
- Low PIM adaptors PIM standard
- Coaxial terminations and attenuators
- Power coaxial terminations attenuators

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Test kits



HUBER+SUHNER

**HUBER+SUHNER** 

## RF CONNECTOR RANGES HUBER + SUHNER



### MICRO MINIATURE

- MMBX board-to-board connectors, impedance 50Ω, frequency up to 12.4GHz, minimum board-to-board distance 6.7mm
- MBX board-to-board connectors, impedance 50  $\Omega$ , frequency up to 8GHz, fulfils axial misalignment 1.2mm (best in class)
- MMCX micro miniature snap-on connectors, impedance  $50\Omega$ , frequency up to 6GHz, low RF-leakage thanks to non-slotted outer contact
- MCX micro miniature snap-on connectors, impedance  $50\Omega$  and  $75\Omega,$  frequency up to 6GHz, tested according to international standard CECC 22220
- MMPX micro miniature snap-on precision connectors, the most ideal coaxial-to-PCB solution for operating frequencies



#### SUBMINIATURE

- SMB snap-on connectors, imped. 50 $\Omega$ , frequency up to 4GHz
- SMC screw-on connectors, imped. 50  $\!\Omega,$  frequency up to 10 GHz
- SMS slide-on connectors, imped.  $50\Omega$ , frequency up to 4GHz
- SMA subminiature A screw-lock connectors, imped.  $50\Omega, frequency$  up to 18GHz
- PC3.5 screw-lock connectors, (3.5mm), impedance 50 $\Omega$ , frequency up to 26.5GHz
- **SK** precision connectors for microwave applications up to 40GHz, intermateable with series SMA and PC3.5
- 1.0/2.3 coaxial inserts according to DIN 41626/2, imped.  $50\Omega$ , frequency up to 4GHz

#### MINIATURE/MID-SIZE/HIGH VOLTAGE

- BNC bayonet lock connectors, impedance  $50\Omega$  (up to 4GHz) and  $75\Omega$  (up to 1GHz) ideal for frequently coupled RF connections
- TNC screw lock connectors, impedance  $50\Omega$  (up to 11GHz) and  $75\Omega$  (up to 1GHz) • BNO - bayonet lock connectors, twinaxial - two contacts, impedance  $75\Omega$
- to  $130\Omega$  (up to 200MHz), for use with balanced twin-conductor cables • BNT - bayonet lock connectors, triaxial - three contacts (inner conductor,
- inner screen and outer screen), for use with triaxial cables up to 3GHz• SHV - high voltage (3.5kV) connectors, impedance  $50\Omega$  (up to 300MHz)
- MHV high voltage (3.5kV) connectors, impedance 502 (up to 300MHz)
- N mid size screw lock connectors, impedance  $50\Omega$  (up to 18GHz) and  $75\Omega$  (up to 1.5GHz)
- 7/16 large size screw lock connectors, impedance  $50\Omega$ , frequency up to 7.5GHz



#### HUBER+SUHNER



### QMA + QN

The Snap-on alternative to SMA and N Type connectors. Save cost through reduced production time and a reduced probability of failures in production with HUBER + SUHNER QMA:

- QMA similar performance to SMA connectors
- Range extends to 18GHz however most QMA types optimised for 6GHz
- QN similar performance to N type connectors
- Range extends to 11GHz however optimised to 6GHz
- User friendly, fast and secure mounting
- Higher packing density possible
- Significant assembly time reduction





## RF / RACK AND PANEL CONNECTOR RANGES

RADIALL, HUBER + SUHNER, ITW McMURDO CONNECTORS



#### VARIOUS RF PRODUCTS

- MMBX board-to-board connectors, impedance 50Ω, frequency up to 12.5GHz
- QMA quick connection, snap-on connectors, imped. 50  $\Omega,$  frequency up to 18GHz
- QN quick lock N connectors, impedance  $50\Omega,$  frequency up to 11GHz
- BNC HT/SHV bayonet lock connectors
- TNC screw-on connectors (11GHz)
- SSMA screw-on connectors (18GHz)
- N screw-on connectors (11GHz)
- Coaxial terminations and attenuators



#### LIGHTNING PROTECTION

- Quarter wave stub types Narrow band, low residual pulse
- Gas capsule types Wide band, various power ratings
- Fine protection (GPS protection)
- Range of connector types available N, 7/16, BNC, TNC and SMA
- DC block, DC injection, high pass filters
- Data-line Protectors; CAT 5/6
- Bulkhead, stud and clamp mounting options
- Application including: Military and Commercial Comms, Navigation, GPS, Cellular, Wireless LAN and ETHERNET.



HUBER+SUHNER

## ANTENNAS

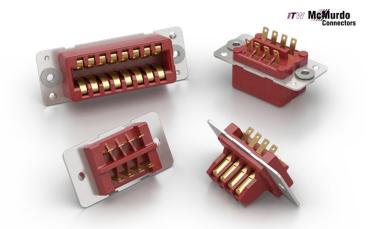
Range of antennas suitable for indoor and harsh environments:

- Wi-Fi Omni and Planar antennas (2.4GHz / 5GHz bands)
- SPOT-S Wi-Fi antennas for industrial and harsh environments
- RFI antennas
- Ultra broadband antennas for in building coverage and DAS
- Sencity®Rail broadband antennas for rail and metro vehicles
- Sencity<sup>®</sup>Road broadband antennas for road vehicles



#### RED

- 8, 16, 24 and 32 contacts
- 5A current rating
- Working voltage 800V DC or AC peak
- Barrier or dowel polarized
- Top and side entry covers
- Available for use with barrier polarization



Typical part numbers: RP16; RP24L

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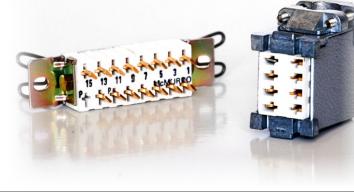
w: www.fclane.com

## **RACK AND PANEL CONNECTOR RANGES**

ITW McMURDO CONNECTORS, POSITRONIC

#### 700

- Approved by BT against styles 202 and 203
- 11 sizes
- All sizes are fitted with polarizing facilities in the end cavity
- Equivalent to Plessey 159 series
- As an alternative termination style a PC tail is also available for sockets fitted with mounting brackets
- Originally used in a wide range of telephone equipment



Typical part numbers: 700 3450 195

#### SCORPION

#### SP, LSP, PICMG 3.8 ACTA ZONE 3 CONNECTOR

- Modular tooling produces a one-piece insulator
- 35+ modules allows customers nearly limitless pin configurations
- Signal contacts mixed with power contacts rated to 80A each
- Board to board, cable to cable or board, panel to cable or board
- Blind mating, integral locking system, sequential mating, cooling vents, A.C. spacing
- Wide variety of accessories/options
- RoHS and non-RoHS Compliant versions available
- PosiBand and high conductivity contacts available

Typical part number: SP3EYYYN3KN2ANBBC1F000/AA

### SCORPION LOW PROFILE

- Achieve optimum size, weight and power (SWaP) by configuring your ideal power/signal connector
- Modules include options for size 12, 20 and 22 contacts plus blanks/spacers
- Contacts are rated up to 55 amps for size 12, 12 amps for size 20 and 3 amps for size 22 contacts
- Contact resistance as low as 1 milliohm for standard conductivity contacts and 0.7 milliohms for high conductivity contacts
- Blanks/spacers allow flexibility for meeting high voltage requirements
- Contact terminations include board-to-board, board-to-cable, cable-to-cable, and panel mount options
- Additional features/accessories include ventilation slots in the connector housing, integral blind mate system, integral locking system, float mounts, panel mount clips, and board locks

Typical part number: LSP2YKNRS1F0001

### POWER CONNECTION SYSTEMS

#### PLA, PLB, PLC, PLAH, PLBH, PLCH, PLB3W3, PLS, PLSH, PLB10W2, PLC16W4

- Size 16 power contacts rated to 42A each
- Board to board, cable to cable or board, panel to cable or board
- Blind mating, integral locking system, sequential mating
- Size: 10.36 x 28.60 to 20.37 x 63.65 mm; 14 contact variants
- Wide variety of accessories/options
- RoHS and non-RoHS Compliant versions available (for non-RoHS omit suffix /AA)



Typical part number: PLB0600050/AA



ITW McMurdo

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Positronic'



## RACK AND PANEL CONNECTOR RANGES



**Positronic** 

#### **GOLDFISH** POWER

- Contact sizes 12, 16, 20 and 22
- Excellent blind mating allows for 2 mm misalignment
- Options for DC output, AC/DC input and signal in one connector
- "Touch safe" recessed socket contacts
- Six contact variants
- Large Surface Area contact system for low contact resistance and energy saving
- Panel mount, float mount and jackscrew options
- Sequential mating options
- Solder PCB mount, crimp and press-fit terminations
- Wide variety of accessories

Typical part number: GFSH89F47HAAPA55

#### **GREAT GOLDEN** POWER

- Contact sizes 0, 12, 16, and 20
- Excellent blind mating allows for 4.5 mm misalignment
- Options for DC output, AC/DC input and signal in one connector
- "Touch safe" recessed socket contacts, safety capped #0 power pins
- Cable to cable, panel to cable, cable to bus bar and cable to pcb mount
- Optional hood with cable clamp for cable halves



Typical part number: GG8768M10/AA

#### DRAGONFLY

- Contact sizes 16, 20 and 22
- Contact rating up to 20A
- Operating temperature up to 125°C
- Options for DC output, AC/DC input and signal in one connector
- Cable, panel and pcb mount options including crimp, solder and press-fit termination
- Optional hood with cable clamp for cable halves



Typical part number: DF03M00/AA

#### **RECTANGULAR CONNECTORS** HIGH AND STANDARD DENSITY

#### GMCT, GAPL

- Contact sizes 16 and 20 (3 contact variants; 9-104 contacts) Rugged, durable design
- Available in straight and right angle solder and cable terminations
- Industrial level or Military performance to MIL-DTL-28748 and SAE AS 39029
- Contact current ratings to 13A

#### SGM, SGMC

- High density, subminiature packaging
- Rugged size 22 contacts and female contacts utilize PosiBand closed entry contact design
- Solder PCB mount, crimp, solder cup and press-in terminations
- 13 contact variants; 4-104 contacts Thermocouple contact options

Typical part numbers: SGMC9S0ESS0000; GMCT9F0E0000



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**Positronic** 

## RACK AND PANEL / D-SUB MINIATURE

#### WEALD ELECTRONICS, EATON, POSITRONIC

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#### BA

- 7 and 15 contacts
- Working voltage 2.5kV DC or AC peak
- 13A current rating (per contact)
- DAP mouldings
- High density polythene hood



Typical part numbers: BA7PH

### ARINC 600

- High performance avionic rack equipment rectangular connectors compliant with ARINC 600 specifications
- Rack and panel connector
- High density up to 800 signal contacts
- Low insertion force contact design (tapered pin, LIF socket)
- Sealed and unsealed versions
- Multiple polarizing positions
- Field replaceable inserts
- Choice of front and rear removable contacts
- Signal, power, coaxial, twinax, quadrax and optical fiber contacts

Typical part number: SB601FG05W2S0008



#### MD, MDX, ED, SD, HDC, RD, ORD, AD, HAD, M24308

- High reliability
- Six package sizes
- 9-50 size 20 contacts
- 14A current rating (per contact)
- Multiple performance options for best cost/performance ratio
- Board to board, cable to cable or board, panel to cable or board
- RoHS and non-RoHS Compliant versions available (for non-RoHS omit suffix /AA)  $\,$
- PosiBand and high conductivity contacts available

Typical part number: MDX25S5R700X/AA

### HIGH DENSITY D-SUBMINIATURE

#### ODD, DD, DAD, M24308

- High reliability
- Six package sizes
- 15-104 size 22 contacts
- 10A current rating (per contact)
- Multiple performance options for best cost/performance ratio
- Board to board, cable to cable or board, panel to cable or board
- RoHS and non-RoHS Compliant versions available (for non-RoHS omit suffix /AA)
- PosiBand and high conductivity contacts available



Typical part numbers: DD78M1000C/AA



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### D-SUB MINIATURE CONNECTOR RANGES POSITRONIC

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#### STANDARD DENSITY COMBO-D

#### CBD, CBM, CBC, CBDP, QB, ACBDP, ACBMP

- High reliability
- Six package sizes
- 22 contact variants
- Up to 100A current rating (per contact)
- Power, signal, coax, high voltage, air and thermocouple contact options
- Board to board, cable to cable or board, panel to cable or board
- Wide variety of accessories/options including blind mate and sequential mating
- RoHS and non-RoHS Compliant versions available (for non-RoHS omit suffix /AA)
- PosiBand and high conductivity contacts available

Typical part number: CBD21WA4M2S5000/AA

#### HIGH DENSITY COMBO-D

#### CBDD, CBHD, CBCD

- High reliability
- High density
- Multiple package sizes and contact variants
- Size 22 contacts mixed with size 8 power contacts rated to 80A each
- Power, signal, coax, high voltage, air and thermocouple contact options
- Board to board, cable to cable or board, panel to cable or board
- Wide variety of accessories/options including blind mate and sequential mating
- RoHS and non-RoHS Compliant versions available (for non-RoHS omit suffix /AA)
- PosiBand and high conductivity contacts available

Typical part number: CBCD8W2F0000S/AA

### ENVIRONMENTALLY SEALED D-SUB

#### WD, WDD, EVD, MD, ODD

- High reliability
- Water and dust ingress protection to IP67
- Standard and high density options
- 9-104 contacts
- Sealed panel mount options with cable and PCB mount terminations
- Sealed cable options
- Corrosion protected and corrosion resistant options
- RoHS and non-RoHS Compliant versions available (for non-RoHS omit suffix /AA)

Typical part numbers: ODD15F0000X/AA

#### MACH-D SIGNAL AND POWER D-SUB

#### MCD (standard density), MCDD (high density), MCBX (Combo-D)

- Made of aluminium or stainless steel, mechanically rugged shells protect against shock, vibration, and impact
- Grounding strip provides excellent electromagnetic compatibility (EMC)
- Precision machined shell provides EMI shielding protection
- IP67 configurations protect against fluid and dust ingress
- High-performance M24308 intermateable
- PosiBand contacts qualified under SAE AS39029 and MIL-DTL-24308 specifications
- Wide range of accessories including backshells and boardlocks

Typical part number: MCD9S100T2KAA15









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## D-SUB MINIATURE / D ACCESSORIES

POSITRONIC, ITW McMURDO CONNECTORS, EATON

#### **OPTICAL D-SUB** CONNECTOR SYSTEM

- Hybrid connector allows for combination of optical, power, signal or coax in a single connector
- Designed for use with Combo-D Family
- Ultra low insertion loss of 0.06 dB (typical) means less optical power is required
- More cost effective than D38999 or ARINC 600-based systems
- Compatible with other ARINC 801 termini
- Accepts cables from 1.6 to 2.8mm dia.
- Suitable for harsh environments
- Tooling and accessories available

Typical part number: CBF3W3M00ZE2Z/AA

#### VARIOUS D-SUBMINIATURE

#### HIGH DENSITY D

- CRIMP D Full or partial loading of selectively plated stamped and formed contacts
- STANDARD / BUDGET D Precision turned contacts in two performance levels:
- Standard D offering a maximum of 500 operations
- Budget D offers 300 operations
- SPECIAL LOW COST D D connectors utilising stamped and formed or turned contacts
- MONOBLOC D A range of mixed layout Monobloc D's which offer the ability to integrate signal, coaxial, high voltage and high power within the connector thus effecting space saving with diverse mounting options.

Typical part number: HDE15PTD

#### microComp

- Very light
- Crimp removable contacts for wire AWG 24 to 28
- Temperature range up to 175 degrees C
- High resistance to vibration and shock
- Compatible with high speed data rates like Gigabit Ethernet
- Accessories compatible with MIL-STD-83513 interfaces



### D-SUB ACCESSORIES

- Accessories to support D-subminiature use in a variety of applications
- Accessories to support ease of placement into manufacturing
- Lightweight aluminium cable adaptors
- Low cost, high performance shielded hoods
- Ethernet/Thinnernet shielded hoods
- Full range of plastic and metallized plastic hoods
- Complete range of screwlocks, slidelocks and jack post
- Compatible with all industry D Subs





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Typical part numbers: D37000ANT20AA; D50000ANE0AA



FC LANE ELECTRONICS Ltd.

Positronic

Positronic

## **D-SUB MINIATURE / OTHER CONN. TYPES** NICOMATIC

#### **DMM** MICRO D-MIX

- High levels of performance in harsh environments, space saving and flexibility for the design
- Compliant or exceed MIL-DTL-83513G and dedicated to cable and PCB applications.
- 2mm pitch, from 1 to 4 rows, from 2 to 120 contacts shell size
- On cable, straight PCB and right angle PCB version available
- I/O connector, board to board, board to cable and cable to cable versions:
- Low frequency (LF) 3A
- High frequency (HF) 6GHz
- High power (HP) 5 /8/10/15/20A

Typical part number: D222SP08D530101-4310

#### **AMM MICRO 1mm PITCH**

- 6. 10. 20. 34 or 50 contacts distributed over 2 rows
- Miniature 1mm pitch Lightweight and secure
- Ingenious features like the integrated guidance pin for stacking purposes
- Stainless Steel 316L hardware
- LCP housing (Glass Fiber Composite)
- Vibration severity 15G, shock 100G
- Temperature cycling -65°C +200°C
- Up to 1000 mating/unmating cycles
- Contact resitance <10m $\Omega$
- 600V withstranding voltage at sea level

Typical part number: HA22H6Q20V16F20150

#### CMM 2mm PITCH

- 2mm pitch connector (square matrix) with proven high reliability under the most extreme environmental conditions
- Flexible architecture: board to board, board to wire and wire to wire configurations
- Modular and hybrid design: mixed layout full option with Low Frequency LF (over 5A) and High Frequency HF (over 11GHz) and High Power HP (over 30A)
- High reliability contact design and High performance under harsh use conditions
- Secure: integral jacking mechanism or locking by spring latch
- Cost effective solution: custom connector assembly from standard components
- Proven success stories in on-board electronic systems
- Full traceability with EN9100:2003

Typical part number: 222C18M12-0303-2312Z5

#### **EMM** MICRO-MINIATURE 1,27mm PITCH

- With a 1,27mm pitch, EMM series offers more than a 40% space reduction compared to the company's popular CMM series or 20% compared to standard MicroD connector systems
- Designed these connectors to meet the performance requirements of MIL-DTL-83513 specification
- Reversed contacts
- Integrated 90° back protection and interchangeable hardware
- Signal contacts are rated for up to 3A
- Resist high shock and vibration
- Operational temperature range is -65 to +260°C

Typical part number: E222A04E50



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## **OTHER CONNECTOR TYPES** NICOMATIC, WEALD ELECTRONICS, ITW McMURDO CONNECTORS

**CRIMPFLEX** CONNECTORS AND CABLES

- Ideal for use with printed ink circuits, flexible PCBs, and flat flexible cable (FFC) jumper assemblies
- Crimping of the contacts is obtained by piercing the conductor in 6 points
- Copper conductors, silver or carbon ink printed conductors, EL lamps
- All types of flexible circuits whose thickness ranges from 75µ to 350µ Can pierce all kinds of supports: polyester, FR4, polyimide, PTFE, etc.
- Mass termination of all contacts in one press stroke
- Connectors operating temperature -55°C to +150°C
- Withstanding voltage 1100V rms
- Current rating per contact 3A continuous (DC) or 5A Continuous (AC)

Typical part number: 254PW10E0060-S1F57B

#### **MICROFLEX** FLEXIBLE 2mm PITCH HARNESS

- Mates with CMM 220 2mm pitch connectors
- Board to board, board to wire, wire to wire
- 2mm pitch
- 2 rows, from 04 to 60 signal contacts,
- Clear and easy cabling system
- Weight reduction up to 60% vs round cable
- 3A contacts
- Screw fixings provides strong mechanical resistance for use in high vibration applications

Typical part number: 220MF20PW50

#### D2 MINIATURE STACKABLE

- Miniature Stackable
- 2 gold plated contacts
- 5A current rating
- Nylon mouldings
- Working voltage 500V DC or AC peak
- Operating temperature -40°C to +125°C
- Stackable and polarised

Typical part number: D2P

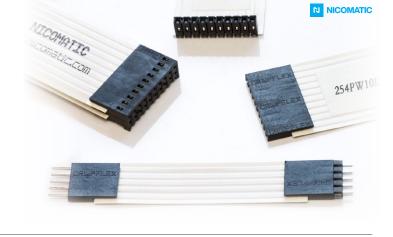
#### MICRONECTOR 200 2mm PITCH PCB

- Designed to meet BS9525 F0033
- High density 2mm pitch 2-part PCB connector
- High specification
- Small footprint for increased packing density
- 7 sizes single row (2 to 17 way), 11 sizes two row (4 to 34 way)
- Male straight and 90° p.c. terminations

Typical part number: 202F16T01U

- Female straight p.c. and crimp terminations
- For board-to-board or cable-to-cable applications









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## **OTHER CONNECTOR TYPES** WEALD ELECTRONICS

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#### MICRONECTOR 300 2mm PITCH PCB

- High density 3-row, 2mm pitch 2-part PCB connector
- High specification
- 3 sizes: 27. 51 and 78 wavs
- 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
- Formerly manufactured by ITW McMurdo



Typical part number: 301 M27T03A00

#### EDGECARD 2.54mm PITCH PCB BOARD TO BOARD

Single part edge card connectors designed for applications requiring two or more pcb's to be connected and readily removed.

- 0.1"/2.54mm pitch
- Fixed or replaceable contacts
- Cut to any size from 4 to 170 contacts double sided
- · Solder for discrete wire, straight pc and wire wrapping terminations
- Cantilever or bifurcated contacts
- Suitable for vapour phase soldering
- Plastic or metal end feet and polarising keys
- Formerly manufactured by ITW McMurdo

Typical part number: C54712QQ15DLA6

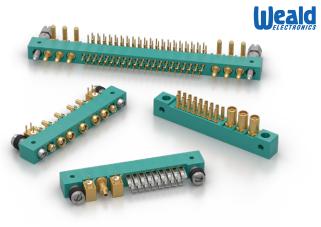
#### 801 MIL-C-55302 SIGNAL 2-ROW PCB

- Based on MIL-C-55302 and manufactured to BS9525 N0001 (LF only)
- 2-row, 2-part PCB connector
- Comprehensive product range
- All contacts are removable and replaceable
- 17 through to 96 contacts available
- 7 contact styles, male and female
- Brass and stainless steel guides
- High resistance to vibration and extreme reliability
- Formerly manufactured by ITW McMurdo Connectors

Typical part number: 801M72FREEYMNGD

#### 801CX MIL-C-55302 MODULAR PCB

- Based on MIL-C-55302
- 2-row, 2-part PCB connector
- Comprehensive product range LF and mixed layouts
- Power contacts provide up to 25A and coax inserts available for frequencies up to 2GHz
- All contacts are removable and replaceable
- High resistance to vibration and extreme reliability
- Formerly manufactured by ITW McMurdo Connectors



Typical part number: 801CXF07FREENGA



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#### www.fclane.com

Our website is designed to make it easy for designers and buyers to match a product to their application and is full of details of Lane Electronics' comprehensive range of connectors and connector accessories. Each section links to other related products while detailed catalogues, manufacturer cross-references, news and application stories and technical support are just a click away.

#### www.fclane.com/store

For those wishing to view and purchase on-line we have our very popular store feature. Here you can check availability and pricing of our most popular product types, which can be quickly found by entering part numbers or product type filters, while still retaining access to all other features and links from our main website.

#### ADDING VALUE

We are able to apply our significant depth of industry knowledge to provide additional service and value for our customers. Examples will include sourcing of complimentary product, matching connectors and accessories to optimise performance, kitting of components to simplify installation and modifying standard connectors and accessories.

#### OBSOLESCENCE

Within our massive inventory, Lane Electronics still holds stock of a number of specialist hard-to-get connector products from several legacy suppliers. Many are still used across a number of long-established applications where the need for replacements is still important. Where items are no longer available we will be pleased to offer advice where more current alternatives may be available.

#### RESPONSIBILITY

Lane Electronics and Weald Electronics are committed to providing the highest levels of quality, service and support to our customers and to our suppliers at all times, yet we are mindful that in doing so these positive activities should not create a negative impact elsewhere and continue to address global concerns of environmental compliance, sustainability, ethical businesses practices and social responsibility.

#### CONDITIONS OF SALE

For terms and conditions of sale visit our website www.fclane.com/terms-and-conditions

#### **PRODUCT SAFETY**

These notes and product details are for guidance only and are intended to be used in conjunction with the Product Catalogue and Product Specification. Products may be safely used 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 It is the users responsibility to ensure that the selected product is suitable for the given application. 1. MATERIAL CONTENT

Circular Connectors generally use metalwork parts made of brass, aluminium, phosphor-bronze or steel, which, dependent 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. It is the responsibility of the user to determine if the product should be RoHS compliant for the given application. 4. DISPOSAL OF PRODUCTS

Product should be disposed of in accordance with any applicable legislation through approved waste and recycling channels. Product should not be burnt.



## FOR MORE INFORMATION VISIT OUR WEBSITE **WWW.fclane.com**





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