

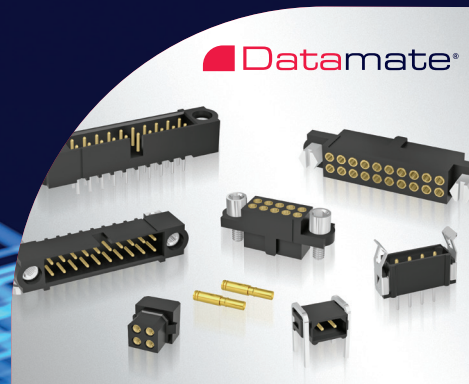
HARWIN

CONNECT TECHNOLOGY
WITH CONFIDENCE

HRI PRODUCT OVERVIEW



HRI
RANGE

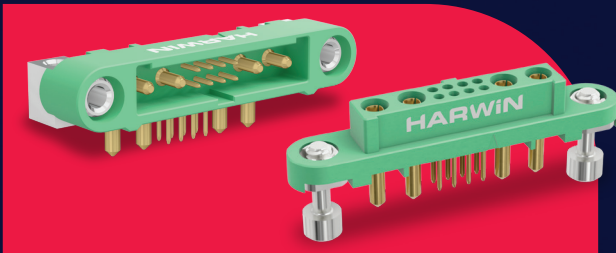


WWW.HARWIN.COM

HIGH-RELIABILITY (HI-REL) INTERCONNECT SOLUTIONS FOR SATELLITES, AEROSPACE, MEDICAL DEVICES, DEFENSE AND MORE.

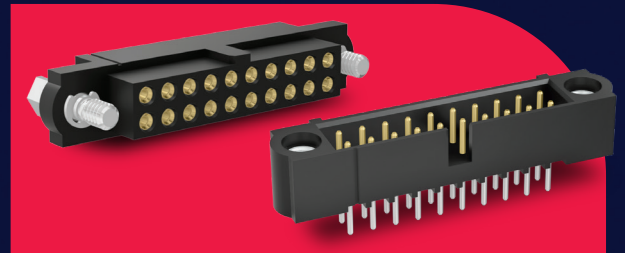
Suitable for critical applications where high performance and assured dependability are vital.

The portfolio includes the compact and lightweight Gecko, high-density Datamate, rugged M300, and the high-power Kona series.



MICRO-MINIATURE CONNECTORS FOR SWAP-C OPTIMIZATION

Gecko connectors provide a low profile, dual row interconnect solution, ideally suited for stacking and cable mating when PCB real estate is at a premium. Small pin spacings of just 1.25mm make Gecko the smallest and lightest high reliability option.



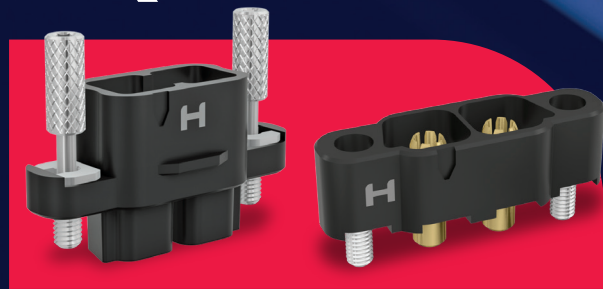
HIGH RELIABILITY, MINIATURE CONNECTORS FOR DESIGN FLEXIBILITY

Datamate connectors provide the ultimate flexibility in high performance, high reliability connectors. LF signal contacts come packaged in single, dual and treble row options, and mixed layouts of signal, power and coax are also available.

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KONA®



HIGH RELIABILITY & HIGH CURRENT MAXIMUM POWER CONNECTORS

Kona connectors bring high-reliability power connection with up to 60A per contact. With 2, 3 and 4 position layouts in a single row configuration, Kona is available in cable-to-board and cable-to-cable options.

M300



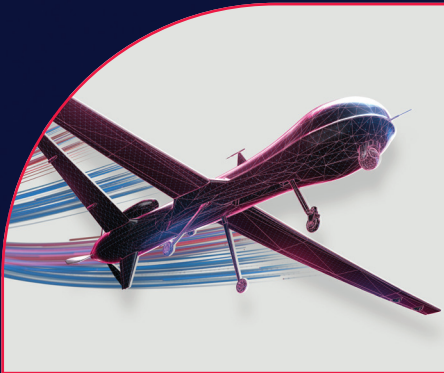
COMPACT POWER SOLUTION, RESISTANT TO VIBRATION & TEMPERATURE

The M300 series brings a compact power solution to the High-Reliability portfolio. With up to 10A per contact and options of 3, 6 and 10 position layouts, M300 has a wide temperature range with max temperatures of +175°C.

HIGH-RELIABILITY APPLICATIONS.

Whether your products are in homes or factories, underground or orbiting the earth, saving lives or breaking technology boundaries, we have the right connection.

Below are just a few examples of where our High-Reliability connectors are used.



UAVs

Remotely operating a vehicle takes confidence in the hardware.

From small camera drones to the world-circling unmanned planes, distance demands sky-high levels of quality.

Harwin connectors and board accessories deliver whether you are specifying for size, weight, power, quality – or all four.



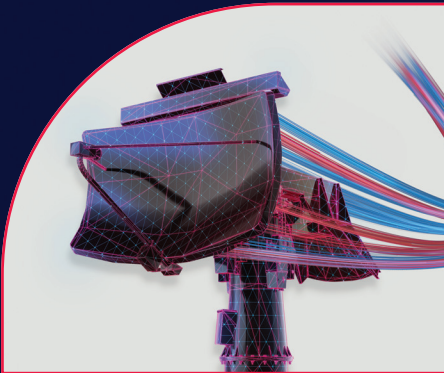
NEW SPACE

Space is a unique and extreme operating environment. Vacuum, cosmic and thermal radiation, cost implications for launch thrust, vibration, high cost of failure and repair make it a specialist field with exacting requirements.



HIGH-END INDUSTRIAL

Harwin's HRi connectors ensure reliable performance in demanding environments. When shock, vibration, and mechanical stress threaten connection integrity, trust HRi to maintain uptime and avoid costly failures for your customers.



DEFENSE & SECURITY

From ground-based personnel equipment to high-altitude surveillance drones, defense electronics demand maximum reliability and security. HRI Connectors meet these needs with rugged construction, secure locking, and resistance to harsh conditions—ensuring dependable performance in mission-critical applications where failure is not an option.



MEDICAL

From surgical equipment to patient monitoring systems, medical devices demand precision, reliability, and uninterrupted performance. HRI Connectors deliver secure, high-performance connections that support consistent accuracy and dependability—helping ensure patient safety and device effectiveness in critical healthcare environments.



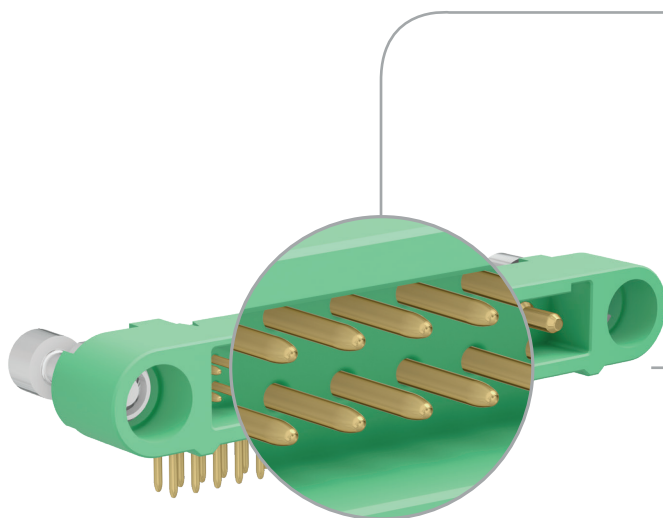
AVIATION

Demanding size, weight and power requirements, in a high reliability application demands precision engineering and market-leading innovation, making Harwin a natural choice for aviation applications.



GECKO 1.25mm PITCH SIGNAL AND MIXED-LAYOUT CONNECTORS

Offering a supremely durable and reliable solution for demanding environments, the Gecko range meets high mechanical and electrical specifications. Combining reliability, lightweight design, and flexibility, Gecko connectors are a trusted choice for engineers designing for space-constrained, high-stress and extreme conditions.



SPACE GRADE PLASTIC

Ideally suited for space, avionics and optronics

Outgassing:

0.68% TML, 0.01% CVCM, 0.26% WVR

Flammability Rating:

UL94V-0

Operating Temperature Range:

-65°C to +150°C

COMPACT PERFORMANCE

Lightweight, halogen free, high temperature thermoplastics

Pitch:

1.25mm

Maximum Voltage

600V AC/DC

4-FINGER PATENTED CONTACT DESIGN

Maintaining contact through high vibration and shock

Vibration Resistance:

20G (196m/s²) for 6 hrs

Shock Resistance:

Up to 100G (981m/s²)

Durability:

1,000 mating cycles

Current per Contact:

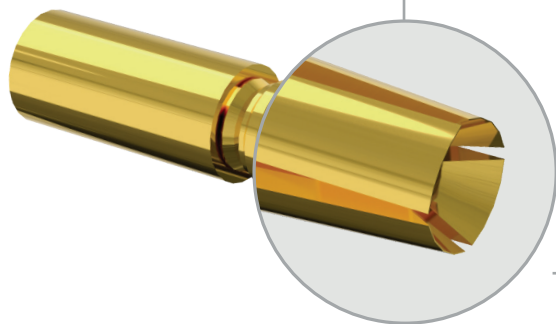
2.8A max

BERYLLIUM COPPER CONTACT

A RoHS and REACH compliant material that performs in polarizing operating temperatures

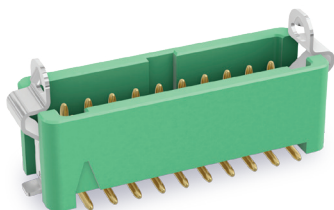
GOLD PLATING

Offering great electrical performance with precisely coated plating finish



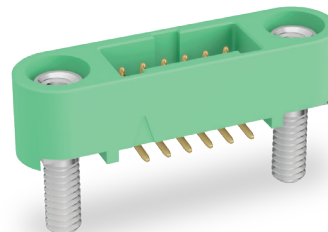


GECKO RANGE



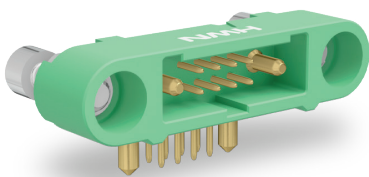
GECKO LATCH

- Quick mate locking system
- Most compact, high performance



GECKO-SL

- Mate before locking system
- Excellent environmental resilience



GECKO-MT

- Compact integration of mixed signal and power connections
- Configurable for layout and mating styles



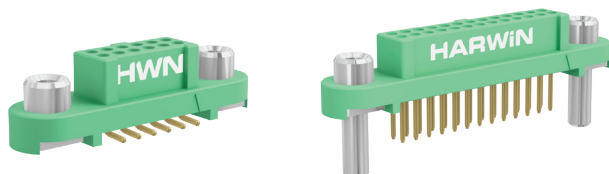
SHIELDING & ACCESSORIES

- EMI shielding for minimizing radiated emissions in critical connections
- Additional environmental resilience



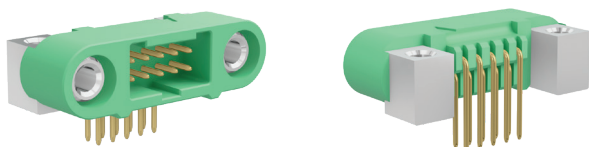
GECKO-SL - PCB MOUNTED VARIANTS

Female Straight



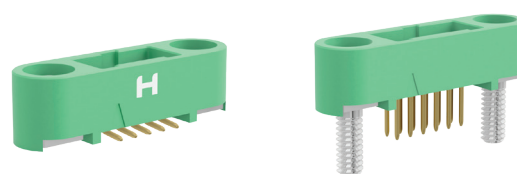
Female connectors with reverse fix screw-locks, for fixing to male cable connectors and optionally to the PCB. Also available with screw-locks for board-to-board. Throughboard or SMT, polarized and individually shrouded.

Male Right-Angle



Male connectors with threaded screw-locks, for fixing to female connectors and optionally to the PCB. Also available with reverse fix screw-locks. Throughboard, polarized and shrouded.

Male Straight



Male connectors with threaded screw-locks, for fixing to female connectors and optionally to the PCB. Also available with reverse fix screw-locks. Throughboard or SMT, polarized and shrouded.

PIN COUNT

06, 10, 12, 16, 20, 26, 34, 50

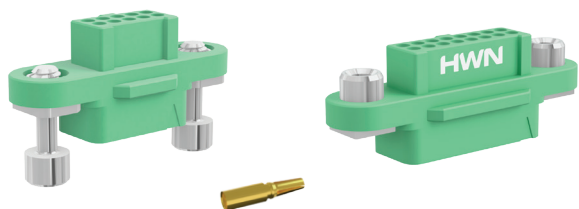
PCB THROUGHBOARD TERMINATIONS

3.00mm

3.30mm – male only

GECKO-SL - CABLE VARIANTS

Female



Female connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, individual shrouding and a backpotting wall for additional cable assembly stability. Mate-before-lock fixings, or front and rear panel mount reverse fix.

CABLE SIZES

26 AWG, 28 AWG, 30 AWG or 32 AWG

Male



Male connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, shrouding and backpotting wall. Threaded fixings for front and rear panel mount, and reverse fix mate-before-lock (for fixing to female board mounted connectors).

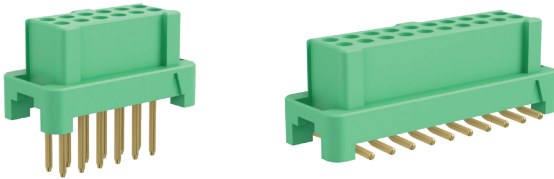
PIN COUNT

06, 10, 12, 16, 20, 26, 34, 50



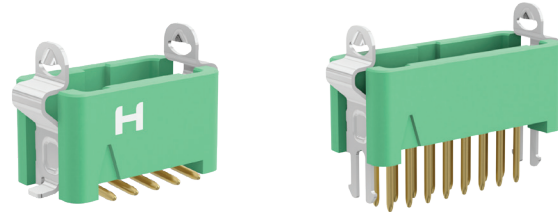
GECKO LATCH - PCB MOUNTED VARIANTS

Female Straight



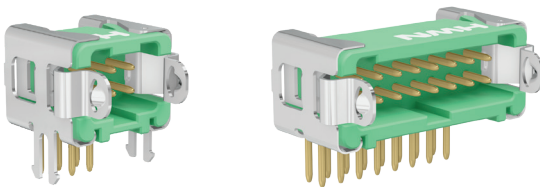
Female connectors compatible with latches. Throughboard or SMT, polarized and individually shrouded.

Male Straight



Male connectors with latches and hold-down fixings for additional strain relief. Throughboard or SMT, polarized and shrouded. Also available without latches.

Male Right-Angle



Male connectors with latches, with either throughboard or SMT hold-down fixings. Throughboard contacts, polarized and shrouded. Also available without latches.

PIN COUNT

06, 10, 12, 16, 20, 26, 34, 50

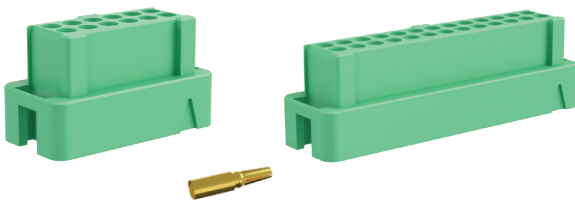
PCB THROUGHBOARD TERMINATIONS

3.00mm

4.50mm

GECKO LATCH - CABLE VARIANTS

Female

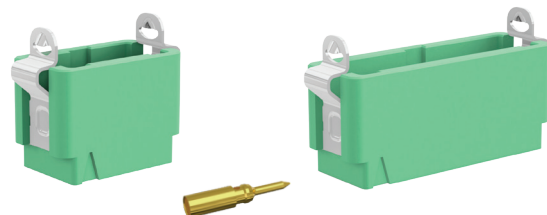


Female connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, individual shrouding and a backpotting wall for additional cable assembly stability. Compatible with mating to male latched connectors.

CABLE SIZES

26 AWG, 28 AWG, 30 AWG or 32 AWG

Male



Male connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, shrouding and backpotting wall. Available with or without latches.

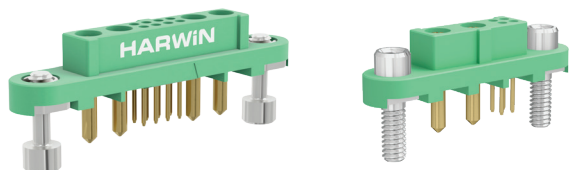
PIN COUNT

06, 10, 12, 16, 20, 26, 34, 50



GECKO-MT - PCB MOUNTED VARIANTS

Female Straight



Female connectors with reverse fix screw-locks, for fixing to male cable connectors and optionally to the PCB. Also available with screw-locks for board-to-board. Throughboard, polarized and individually shrouded.

PIN COUNT

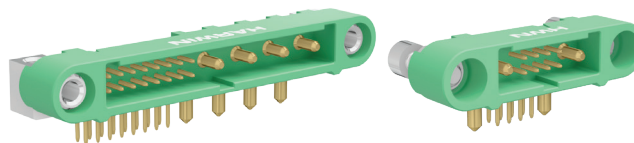
Symmetrical:

8 signal + 2 power 8 signal + 4 power

Non-symmetrical:

4 signal + 2 power 8 signal + 6 power
4 signal + 4 power 16 signal + 4 power
8 signal + 3 power 24 signal + 2 power

Male Right-Angle



Male connectors with threaded screw-locks, for fixing to female connectors and optionally to the PCB. Also available with reverse fix screw-locks. Throughboard, polarized and shrouded.

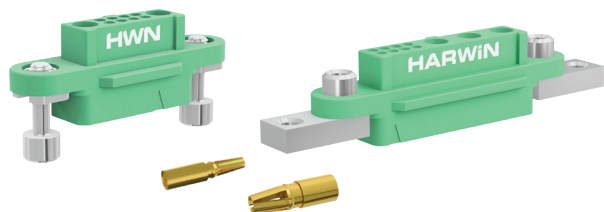
PCB THROUGHBOARD TERMINATIONS

3.00mm signal, 3.50mm power – female

3.30mm signal, 3.50mm power – male

GECKO-MT - CABLE VARIANTS

Female



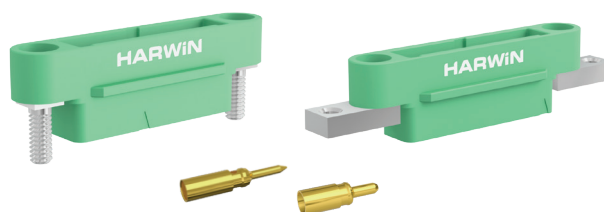
Female connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, individual shrouding and a backpotting wall for additional cable assembly stability. Mate-before-lock fixings, or front and rear panel mount reverse fix.

CABLE SIZES

26 AWG, 28 AWG, 30 AWG or 32 AWG – signal

18 AWG – power

Male



Male connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, shrouding and backpotting wall. Threaded fixings for front and rear panel mount, and reverse fix mate-before-lock (for fixing to female board mounted connectors).

PIN COUNT

Symmetrical:

8 signal + 2 power 8 signal + 4 power

Non-symmetrical:

4 signal + 2 power 8 signal + 6 power
4 signal + 4 power 16 signal + 4 power
8 signal + 3 power 24 signal + 2 power



SHIELDING

Cable Backshells

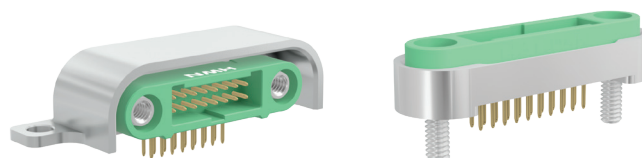


Metal backshells combined with metal braid for added EMI/RFI protection. Aluminium alloy with a nickel coating for improved corrosion resistance. Compatible with both female screw-lock and male screw-lock threaded housings, for both cable-to-cable and cable-to-board arrangements.

OPTIONS AVAILABLE

- All pin counts for Gecko-SL cable connectors
- Cable kit with or without additional screws, depending on hardware choice
- Microband ties - for securing metal external braid

PCB Mount Backshells

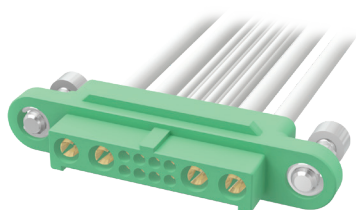


Board or panel mount aluminium alloy shields, compatible for mating with the cable backshells. Suitable for both PCB mount and panel mounted cable connectors. Combine the right-angle mounted backshells with a ground plane to achieve all-round shielding.

OPTIONS AVAILABLE

- Straight Board Mount Backshell - suitable for: PCB female or male with board mount studs
- Right-angle Board Mount Backshell - suitable for: PCB male with/without board mount
- Right-angle Board & Panel Mount Backshell - suitable for: PCB male with/without board mount

CABLE ASSEMBLIES



Gecko Latch, Gecko-SL and Gecko-MT cable assembly service. Basic assemblies, twisted pair or fully shielded, manufactured and tested - no tooling required, ready for production use. Selected lengths available from stock, with other variations made to order.

OPTIONS AVAILABLE

- Complete cable assemblies - single or double ended
- Individual contacts with cable - single or double ended

TOOLING



All the tooling you need to make your own cable assemblies in house. Instruction sheets and videos available to assist with your production training.

OPTIONS AVAILABLE

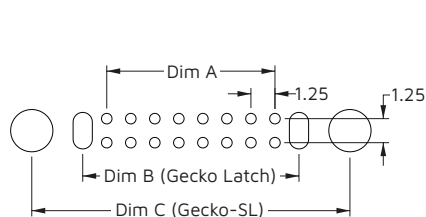
- Hand crimp tools and positioners
- Insertion/Extraction tools
- Unmating tools for latched connectors



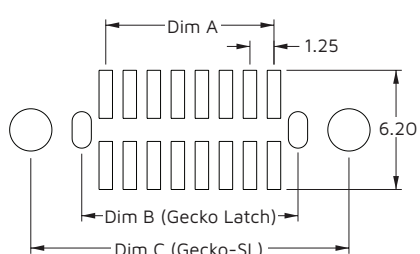
KEY SPECIFICATIONS

MATERIALS	ELECTRICAL	MECHANICAL	ENVIRONMENTAL
Housings: Glass-Filled High Temperature Thermoplastic, UL94V-0	Current per contact: 2.8A max	Durability: 1,000 mating cycles	Operating temperature: -65°C to +150°C
Contacts: Copper Alloy, Gold Plating	Working voltage: 450V AC/DC	Insertion force (per contact): 2.8N max	Humidity: 90-95% RH at +40°C for 96 hours
Screw-loks: Stainless Steel	Maximum voltage: 600V AC/DC	Withdrawal force (per contact): 0.2N min	Vibration resistance: 20G (196m/s²) for 2 hrs
Metal Backshells: Aluminium Alloy	Contact resistance: 25mΩ max	Pitch: 1.25mm Signal Contacts	Shock resistance: 100G (981m/s²) in Z axis 50G (490m/s²) in X/Y axis
	Insulation resistance: 1GΩ min at 500V DC		Outgassing: 0.68% TML, 0.01% CVCM, 0.26% WVR
			Compliance: RoHS Compliant REACH / CMRT statements

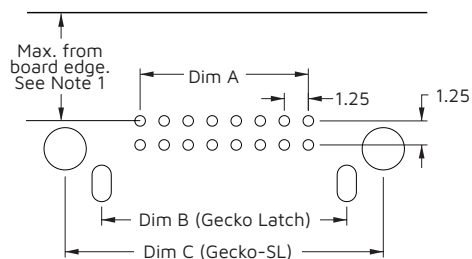
PCB FOOTPRINT



STRAIGHT THROUGHBOARD



STRAIGHT SMT



RIGHT-ANGLE THROUGHBOARD

all dimensions in mm

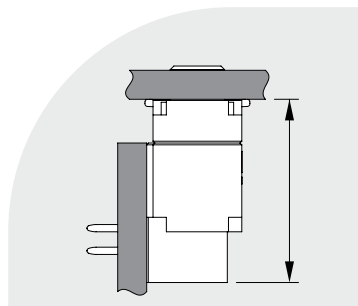
	DIM A	DIM B	DIM C
STRAIGHT THROUGHBOARD	1.25mm x (No. of contacts per row - 1)	Dim A + 2.50mm	Dim A + 7.80mm
STRAIGHT SMT	1.25mm x (No. of contacts per row - 1)	Dim A + 2.50mm	Dim A + 7.80mm
RIGHT-ANGLE THROUGHBOARD	1.25mm x (No. of contacts per row - 1)	Dim A + 4.00mm	Dim A + 7.80mm

Note 1: Max. distance of nearside contacts to board edge when mated with:

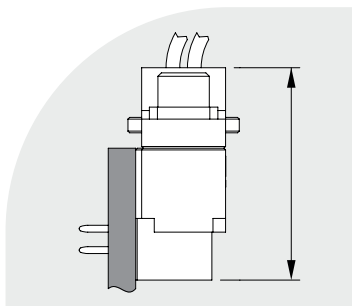
- Unshielded Cable: 4.70mm
- Shielded Cable: 2.55mm



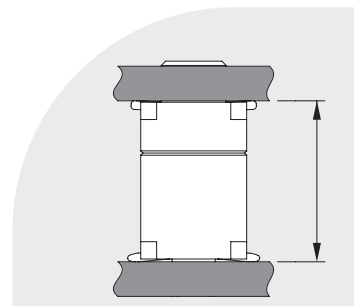
STACKING HEIGHTS



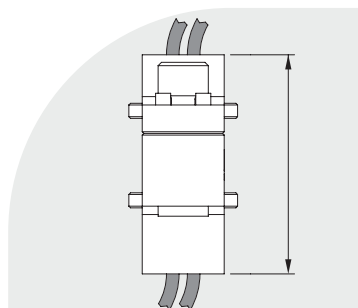
**MALE RIGHT-ANGLE TO
FEMALE STRAIGHT**



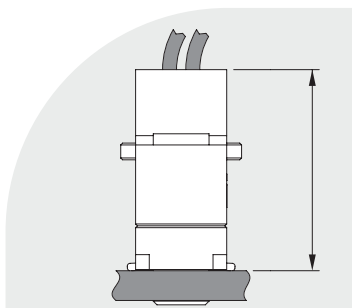
**MALE RIGHT-ANGLE TO
FEMALE CABLE**



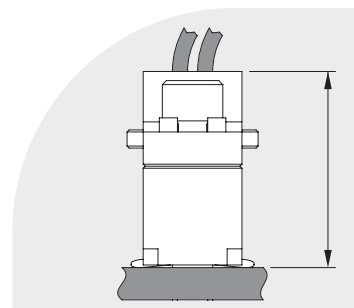
**MALE STRAIGHT TO
FEMALE STRAIGHT**



**MALE CABLE TO
FEMALE CABLE**



**MALE CABLE TO
FEMALE STRAIGHT**



**MALE STRAIGHT TO
FEMALE CABLE**

		FEMALE		
		STRAIGHT THROUGHBOARD	STRAIGHT SMT	CABLE ‡
MALE	STRAIGHT THROUGHBOARD	7.25mm	7.33mm (SL) 7.35mm (Latch)	9.90mm max (SL) 7.90mm max (Latch)
	STRAIGHT SMT	7.33mm	7.40mm (SL) 7.42mm (Latch)	10.05mm max (SL) 8.05mm max (Latch)
	RIGHT-ANGLE THROUGHBOARD	9.08mm (SL, M3 fixing) 10.05mm (SL, M4 fixing) 8.68mm (Latch)	9.15mm (SL, M3 fixing) 10.13mm (SL, M4 fixing) 8.78mm (Latch)	11.90mm max (SL, M3 fixing) 12.80mm max (SL, M4 fixing) 9.36mm max (Latch)
	CABLE ‡‡	10.98mm max (SL) 9.10mm max (Latch)	11.13mm max (SL) 9.25mm max (Latch)	13.48mm max (SL) 9.58mm max (Latch)

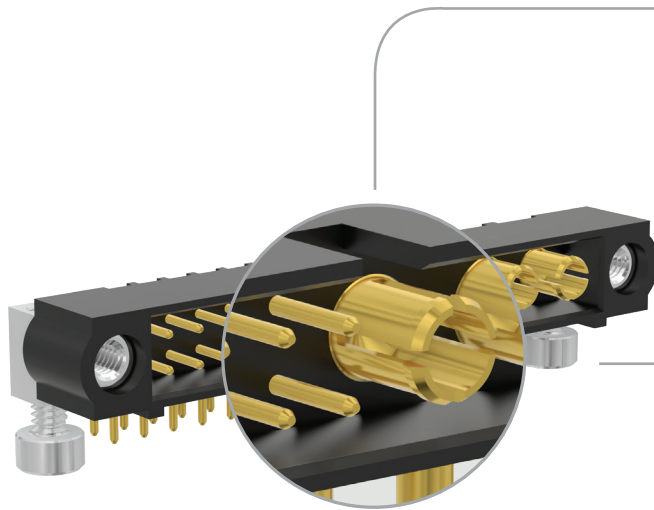
‡ The F3 panel mount stud (Gecko-SL) adds an additional 2.80mm max length

‡‡ The M2 panel mount stud (Gecko-SL) adds an additional 1.87mm max length



DATAMATE - 2.00mm PITCH SIGNAL AND MIXED-LAYOUT CONNECTORS

Providing reliable signal, power, and coaxial connectivity in compact form factors, the Datamate range is suited to environments where vibration, shock, and extreme temperatures are present. With secure locking and proven contact integrity, these connectors offer dependable performance in systems that demand robust, high-density interconnect.



HIGH TEMPERATURE PLASTIC

Robust and durable

Flammability Rating:

UL94V-0

Operating Temperature Range:

-55°C to +125°C

DEPENDABLE PERFORMANCE

Lightweight, reliable

Pitch:

2.00mm (signal), 4.00mm (power or coax)

Maximum Voltage

1,200V DC/AC

4-FINGER SIGNAL CONTACT DESIGN

Maintaining contact through high vibration and shock

Vibration Resistance:

20G (196m/s²) for 2 hrs, 10G (98m/s²) for 6 hrs

Shock Resistance:

100G (981m/s²)

Durability (signal):

500 mating cycles

Current per Contact (signal):

3.3A max

Current per Contact (power):

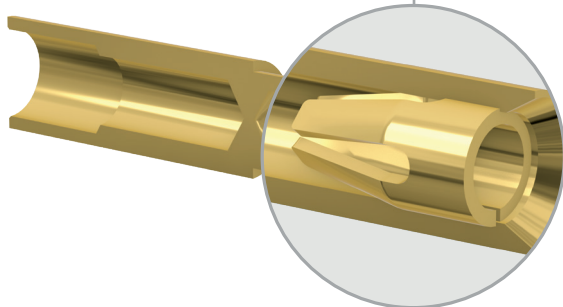
Up to 40A max

BERYLLIUM COPPER CONTACT

Superior spring force and electrical conductivity under all conditions

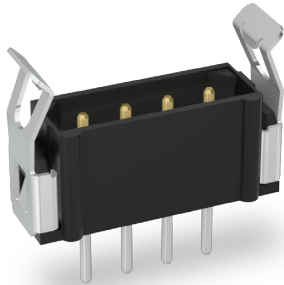
GOLD PLATING

Offering great electrical performance with precisely coated plating finish



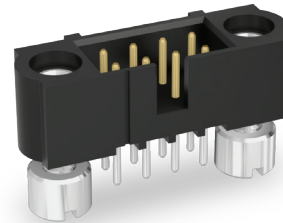


DATAMATE RANGE



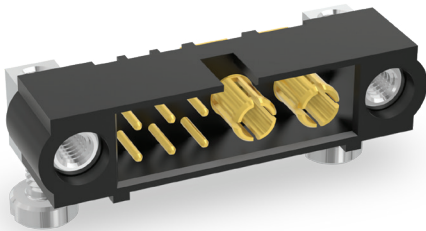
DATAMATE L-TEK

- Quick mate locking system
- Most compact, high performance



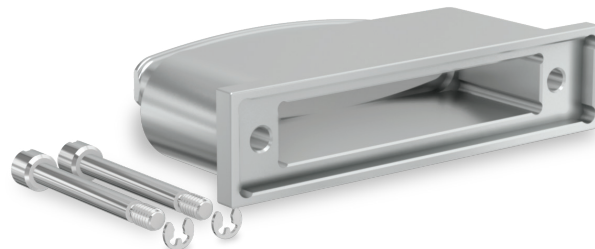
DATAMATE J-TEK

- Durable locking system for maximum vibration resistance
- Wide variety of options including fast-mating and reverse orientation



DATAMATE MIX-TEK

- Configurations with coax or power contacts, or mixed with additional signal contacts
- Wide range of options available



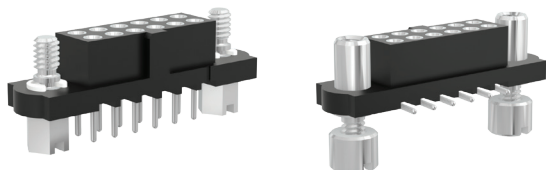
SHIELDING & ACCESSORIES

- EMI shielding for minimizing radiated emissions in critical connections
- Additional environmental resilience



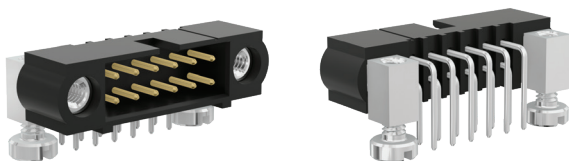
DATAMATE J-TEK – PCB MOUNTED VARIANTS

Female Straight



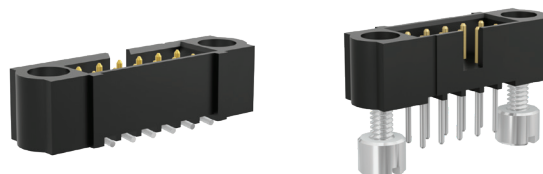
Female connectors with reverse fix jackscrews, for fixing to male cable connectors and optionally to the PCB. Also available with jackscrews for board-to-board. Throughboard or SMT, polarized and individually shrouded. Shorter tail pin-in-paste option.

Male Right-Angle



Male connectors with threaded jackscrews, for fixing to female connectors and optionally to the PCB. Also available with reverse fix jackscrews. Throughboard or SMT, polarized and shrouded.

Male Straight



Male connectors with threaded jackscrews, for fixing to female connectors and optionally to the PCB. Also available with reverse fix jackscrews. Throughboard or SMT, polarized and shrouded. Shorter tail pin-in-paste option.

PIN COUNT

04 to 50, even numbers (double row)

18 to 96 (triple row)

(check website for current availability)

PCB THROUGHBOARD TERMINATIONS

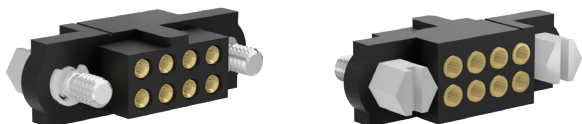
3.00mm, 4.50mm or 2.00mm – female

3.30mm, 4.40mm or 1.85mm – male straight

3.00mm or 4.50mm – male right-angle

DATAMATE J-TEK – CABLE VARIANTS

Female



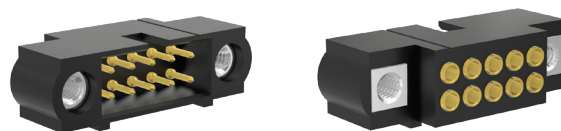
Female connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization and individual shrouding. Optional backpotting wall versions for additional cable assembly stability. Floating jackscrews, or guide pin / reverse fix with front panel mount.

CABLE SIZES

22, 24, 26, 28, 30 or 32 AWG – female

22, 24, 26 or 28 AWG – male

Male



Male connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, shrouding. Optional backpotting wall versions. Threaded fixings for front and rear panel mount, and reverse fix floating jackscrews (for fixing to female board mounted connectors).

PIN COUNT

04 to 50, even numbers (double row)

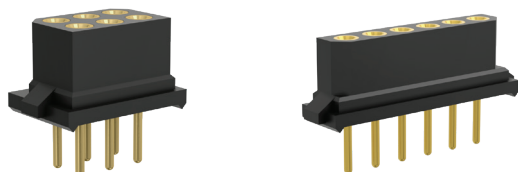
18 to 96 (triple row)

(check website for current availability)



DATAMATE L-TEK – PCB MOUNTED VARIANTS

Female Straight



Female connectors compatible with latches. SMT in double row, Throughboard in both double and single row. Polarized and individually shrouded.

Male Straight



Male connectors with latches, polarized and shrouded. SMT in double row, Throughboard in both double and single row. Shorter tail pin-in-paste options. Also available without latches.

Male Right-Angle



Male connectors with latches, polarized and shrouded. Throughboard or SMT options in both single and double row. Also available without latches.

PIN COUNT

2 to 7, 17, 22 (single row)

4 to 20, 26, 34, 44 (double row)

(check website for current availability)

PCB THROUGHBOARD TERMINATIONS

3.00mm or 4.50mm – female

3.00mm, 4.50mm or 2.00mm – male straight

3.00mm or 4.50mm – male right-angle

DATAMATE L-TEK – CABLE VARIANTS

Female



Female connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, individual shrouding and a backpotting wall for additional cable assembly stability. Compatible with mating to male latched connectors.

CABLE SIZES

22, 24, 26, 28, 30 or 32 AWG – female

22, 24, 26 or 28 AWG – male

Male



Male connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization, shrouding and backpotting wall. Available with or without latches.

PIN COUNT

2 to 7, 17 (female single row)

4 to 20, 26, 34 (female double row)

2 to 7 (male single row)

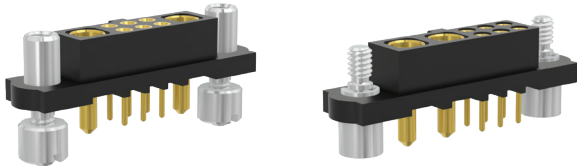
4 to 12 (male double row)

(check website for current availability)



DATAMATE MIX-TEK – PCB MOUNTED VARIANTS

Female Straight



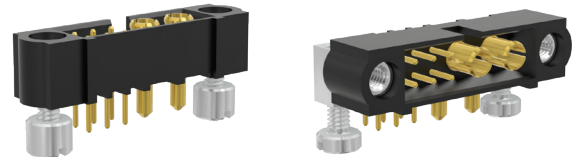
Female connectors with either mixed signal and power contacts, or all power contacts. Also available with coax contacts. Reverse fix jackscrews mate to male cable connectors and optionally to the PCB. Also available with jackscrews for board-to-board. Throughboard, polarized and individually shrouded.

PIN COUNT

Signal +	Double and triple row connector variants available with a wide range of pin count combinations. Check website for available variants.
Special*:	
Special:	2, 4, 6, 8, 10

* Special = Power or Coax Contacts

Male Straight, Male Right-Angle



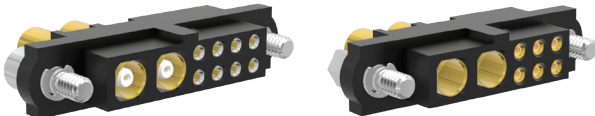
Male connectors with either mixed signal and power contacts, or all power contacts. Also available with coax contacts. Threaded jackscrews for fixing to female connectors and optionally to the PCB. Also available with reverse fix jackscrews. Throughboard, polarized and shrouded.

PCB THROUGHBOARD TERMINATIONS

3.00mm or 4.50mm – female straight signal
3.30mm or 4.40mm – male straight signal
3.00mm or 4.50mm – male right-angle signal
3.50mm or 5.00mm – power

DATAMATE MIX-TEK – CABLE VARIANTS

Female



Female connector housings and contacts with either mixed signal and power contacts, or all power contacts. Coax contacts also available. Crimp signal contacts to stranded equipment wire. Housings include polarization and individual shrouding. Floating jackscrews or reverse-fix for rear panel mounting.

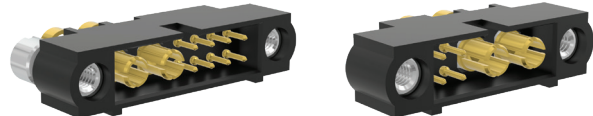
CABLE SIZES (POWER/COAX)

10 AWG – High Power
12, 14, 16, 18, 20 AWG – Power
RG178, RG174, RG179, RG316, UT047 – Coax

CABLE SIZES (SIGNAL)

22, 24, 26, 28, 30 or 32 AWG – female signal
22, 24, 26 or 28 AWG – male signal

Male



Male connector housings and contacts with either mixed signal and power contacts, or all power contacts. Coax contacts also available. Crimp signal contacts to stranded equipment wire. Housings include polarization and shrouding. Threaded fixings for front and rear panel mount, and reverse fix floating jackscrews (for fixing to female board mounted connectors).

PIN COUNT

Signal +	Double and triple row connector variants available with a wide range of pin count combinations. Check website for available variants.
Special*:	
Special:	2, 4, 6, 8, 10

* Special = Power or Coax Contacts



SHIELDING

Cable Backshells



Metal backshells combined with metal braid for added EMI/RFI protection. Aluminium alloy with a nickel coating for improved corrosion resistance. Compatible with female jackscrew connectors, for cable-to-board or cable-to-panel arrangements.

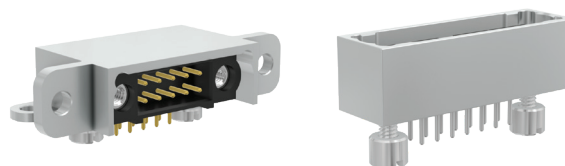
OPTIONS AVAILABLE

All pin counts for Datamate J-Tek double row cable connectors (including conforming Mix-Tek sizes)

Cable kit with or without additional screws, depending on hardware choice

Microband ties - for securing metal external braid

PCB Mount Backshells



Board or panel mount aluminium alloy shields, compatible for mating with the female cable backshells. Suitable for male PCB mount and panel mounted cable connectors. Combine the right-angle mounted backshells with a ground plane to achieve all-round shielding.

OPTIONS AVAILABLE

All pin counts for Datamate J-Tek two row cable connectors (including conforming Mix-Tek sizes)

Straight board mount backshell - suitable for Datamate J-Tek PCB female or male with board mount studs, and cable male with panel mount

Right-angle board mount backshell - suitable for Datamate J-Tek PCB through board male connectors, with panel mount options

CABLE ASSEMBLIES



Datamate J-Tek, Mix-Tek and L-Tek cable assembly service. Basic assemblies, twisted pair or fully shielded, manufactured and tested - no tooling required, ready for production use. Selected lengths available from stock, with other variations made to order.

OPTIONS AVAILABLE

Complete cable assemblies - single or double ended

Individual contacts with cable - single or double ended

TOOLING



All the tooling you need to make your own cable assemblies in house. Instruction sheets and videos available to assist with your production training. Plus additional tooling for separating mated products and using jackscrews.

OPTIONS AVAILABLE

Hand crimp tools and positioners

Insertion/Extraction tools

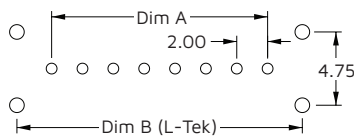
Unmating tools for latched connectors



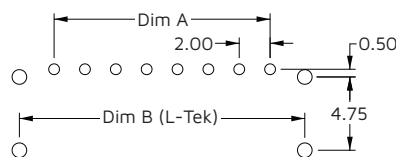
KEY SPECIFICATIONS

MATERIALS	ELECTRICAL	MECHANICAL	ENVIRONMENTAL
Housings: Glass-Filled High Temperature Thermoplastic, UL94V-0	Current per contact: 40A max for power 3.3A max for signal	Durability: 500 mating cycles	Operating temperature: -55°C to +125°C
Contacts: Copper Alloy, Gold finish on contact area	Coax characteristics: 50Ω impedance 6GHz frequency range	Insertion force (per contact): 20.0N max for power/coax 2.0M max for signal	Humidity: 90-95% RH at +40°C for 56 Days
Jackscrews: Stainless Steel	Working voltage: 180V AC for coax 800V AC/DC for other connectors 250V AC/DC for cable assemblies	Withdrawal force (per contact): 0.2N min	Vibration resistance: 10G (196m/s²) for 6 hrs 20G (98m/s²) for 2 hrs
	Maximum voltage: 1,200V AC/DC for power/signal 1,000V AC for coax	Contact retention in housing: 10N min	Shock resistance: 100G (981m/s²)
Metal Backshells: Aluminium Alloy	Insulation resistance: 100MΩ min	Pitch: 4.00mm for power/coax 2.00mm for signal	Compliance: RoHS Compliant REACH / CMRT statements

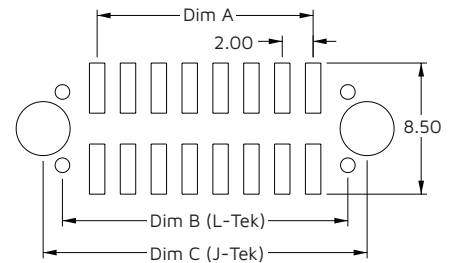
PCB FOOTPRINT



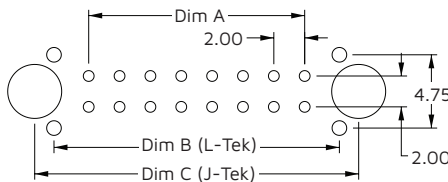
**STRAIGHT THROUGHBOARD
SINGLE ROW**



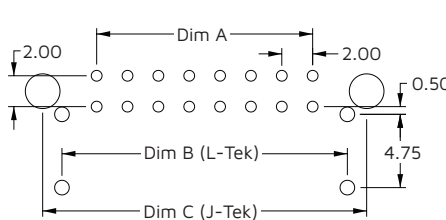
**RIGHT-ANGLE THROUGHBOARD
SINGLE ROW**



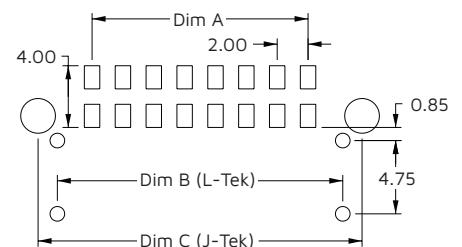
STRAIGHT SMT ##



**STRAIGHT THROUGHBOARD
DOUBLE ROW**



**RIGHT-ANGLE THROUGHBOARD
DOUBLE ROW**



RIGHT-ANGLE SMT ##

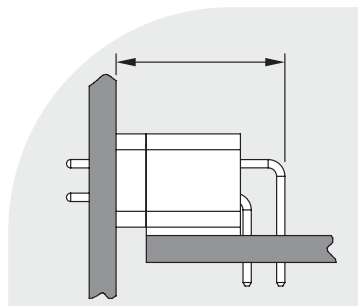
all dimensions in mm

	DIM A	DIM B	DIM C
ALL LAYOUTS	2.00mm x (No of contacts per row - 1)	Dim A + 4.50mm	Dim A + 7.00mm

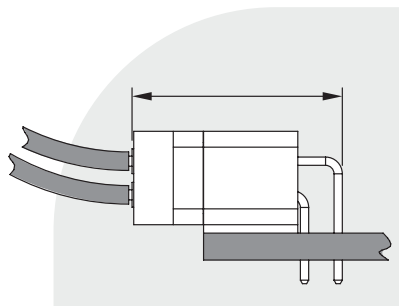
SMT pad sizes may vary – check individual drawings



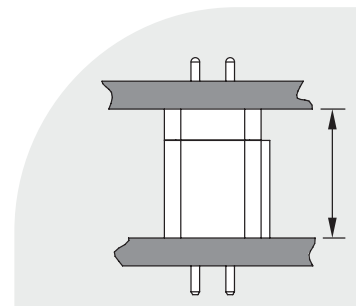
STACKING HEIGHTS



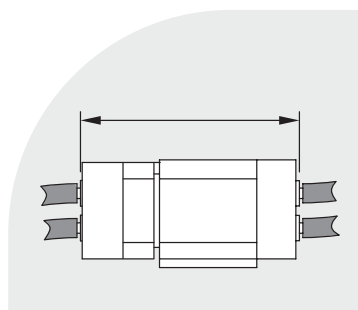
**MALE RIGHT-ANGLE TO
FEMALE STRAIGHT**



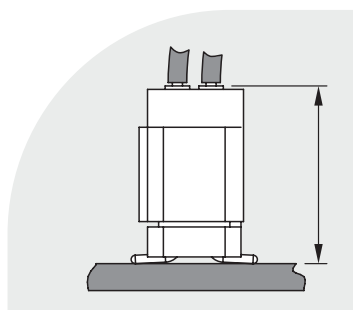
**MALE RIGHT-ANGLE TO
FEMALE CABLE**



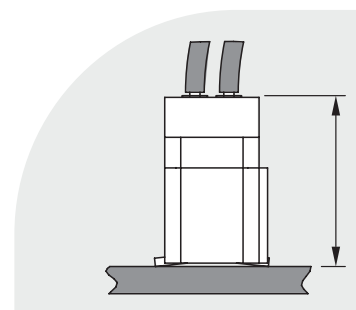
**MALE STRAIGHT TO
FEMALE STRAIGHT**



**MALE CABLE TO
FEMALE CABLE**



**MALE CABLE TO
FEMALE STRAIGHT**



**MALE STRAIGHT TO
FEMALE CABLE**

		FEMALE		
		STRAIGHT THROUGHBOARD	STRAIGHT SMT	CABLE ‡
MALE	STRAIGHT THROUGHBOARD	7.30mm (J-Tek/Mix-Tek) 7.23mm (L-Tek)	7.80mm (J-Tek) 7.83mm (L-Tek)	9.75mm max (J-Tek/Mix-Tek) 10.00mm max (L-Tek)
	STRAIGHT SMT	7.55mm (J-Tek) 7.93mm (L-Tek)	8.05mm (J-Tek) 8.53mm (L-Tek)	10.10mm max (J-Tek) 10.75mm max (L-Tek)
	RIGHT-ANGLE THROUGHBOARD	10.00mm (J-Tek/Mix-Tek) 7.98mm (L-Tek single row) 9.98mm (L-Tek double row)	10.50mm (J-Tek) 10.58mm (L-Tek)	12.60mm max (J-Tek/Mix-Tek) 10.85mm max (L-Tek single row) 12.95mm max (L-Tek double row)
	RIGHT-ANGLE SMT	11.60mm (J-Tek) 11.78mm (L-Tek)	12.10mm (J-Tek) 12.38mm (L-Tek)	14.20mm max (J-Tek) 14.60mm max (L-Tek)
	CABLE ‡	9.85mm max (J-Tek) 9.70mm max (Mix-Tek) 10.79mm max (L-Tek)	10.35mm max (J-Tek) 11.39mm max (L-Tek)	12.05mm max (J-Tek/Mix-Tek) 13.30mm max (L-Tek)

‡ J-Tek only – 1.00mm extended walls add 1.00mm; 5.00mm extended walls add 5.00mm. If both connectors have extended walls, add for both.



KONA - 60A POWER CONNECTORS

Kona connectors deliver high-current capability in a compact, robust format, supporting up to 60A per contact. Designed for demanding power applications, Kona provides a practical solution for high current and mechanical durability in safety critical applications.



SPACE GRADE PLASTIC

Ideally suited for space, avionics and optronics

Outgassing:

0.05% TML, 0.00% CVCM

Flammability Rating:

UL94V-0

Operating Temperature Range:

-65°C to +150°C

EXTREME PERFORMANCE

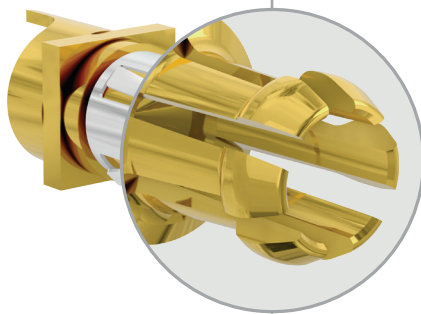
High power, halogen free

Pitch:

8.50mm

Maximum Voltage

3,000V AC



6-FINGER SIGNAL CONTACT DESIGN

Maintaining contact through high vibration and shock

Vibration Resistance:

Up to 20G (196m/s²) for 12 hrs

Shock Resistance:

Up to 100G (981m/s²)

Durability:

250 mating cycles

Current per Contact:

60A max

BERYLLIUM COPPER CONTACT

RoHS and REACH compliant material with superior spring force under all conditions

GOLD PLATING

Offering great electrical performance with precisely coated plating finish



KONA – PCB MOUNTED VARIANTS

Male Straight



Male connectors with threaded jackscrews, for fixing to female connectors and optionally to the PCB. Also available with reverse fix screw-locks, mate-before-lock. Throughboard, polarized and individually shrouded.

PIN COUNT

02, 03, 04

Male Right-Angle



Male connectors with threaded jackscrews, for fixing to female connectors and optionally to the PCB. Also available with added panel mount fixing on the mating face. Throughboard, polarized and shrouded.

PCB THROUGHBOARD TERMINATIONS

4.50mm or 5.90mm – male straight

3.65mm – male right-angle

KONA – CABLE VARIANTS

Female



Female connector housings and contacts, for solder or crimp to stranded power wires. Housings include polarization, individual shrouding and a backpotting wall for additional cable assembly stability. Mate-before-lock thumbscrew fixings in straight or right-angle cable exit, or front panel mount reverse fix with straight cable exit.

CABLE SIZES

8 AWG

Male



Male connector housings and contacts, for solder or crimp to stranded power wires. Housings include polarization, shrouding and backpotting wall with straight cable exit. Threaded fixings for front panel mount, and reverse fix mate-before-lock with thumbscrews (for fixing to female board mounted connectors).

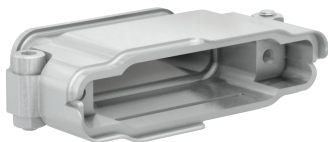
PIN COUNT

02, 03, 04



SHIELDING

Cable Backshells



Metal backshells combined with metal braid for added EMI/RFI protection. Aluminium alloy with a nickel coating for improved corrosion resistance. Compatible with female jackscrew connectors, for cable-to-board, cable-to-panel or cable-to-board arrangements.

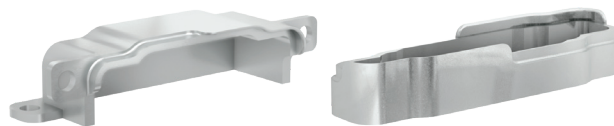
OPTIONS AVAILABLE

Cable Backshell kit – for female and male cable connectors

Cable Backshell kit, right-angle – for female right-angle cable connectors

Microband ties – for securing metal external braid

PCB Mount Backshells



Board or panel mount aluminium alloy shields in both straight and right-angle orientations. Suitable for male PCB mount and panel-mounted male/female cable connectors. Combine the right-angle mounted backshells with a ground plane to achieve all-round shielding.

OPTIONS AVAILABLE

Straight Board Mount Backshell – suitable for:
PCB male with board mount studs
Cable male/female with panel mount studs

Right-angle Board Mount Backshell – suitable for:
PCB male without panel mount

Right-angle Board & Panel Mount Backshell – suitable for:
PCB male without panel mount

CABLE ASSEMBLIES



Hassle-free cable assembly service. Complete assemblies, manufactured and tested – no tooling required, ready for production use. Options for shielding with metal backshells and braid. Choose your cable length – variations made to order.

OPTIONS AVAILABLE

Complete cable assemblies – single or double ended

Individual contacts with cable – single or double ended

TOOLING



All the tooling you need to make your own cable assemblies in-house. Instruction sheets and videos are available to assist with your production training. Drivers for jackscrews and slotted nuts.

OPTIONS AVAILABLE

Hand crimp tool and positioner

Cable contact extraction tool, Cap removal tool

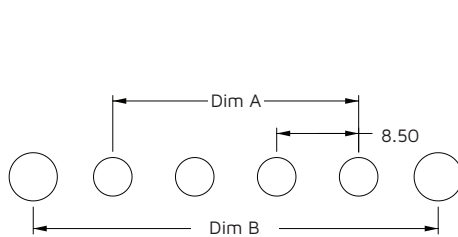
Screwdrivers for board mount nut and thumbscrews



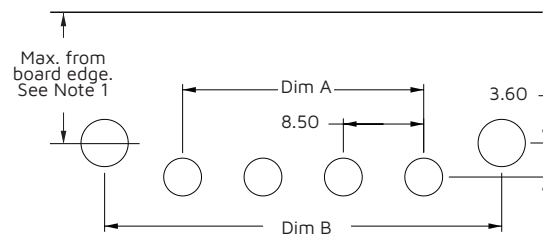
KEY SPECIFICATIONS

MATERIALS	ELECTRICAL	MECHANICAL	ENVIRONMENTAL
Housings: Glass-Filled High Temperature Thermoplastic, UL94V-0	Current per contact: 60A max	Durability: 250 mating cycles	Operating temperature: -65°C to +150°C
Contacts: Copper Alloy, Gold Plating	Working voltage: 1,500V AC/DC	Insertion force (per contact): 70N max	Humidity: 90-95% RH at +40°C for 96 hours
Screw-loks: Stainless Steel	Maximum voltage: 3,000V AC	Withdrawal force (per contact): 3N min	Vibration resistance: 20G (196m/s²) for 12 hrs
Metal Backshells: Aluminium Alloy	Contact resistance: 2mΩ max	Contact retention in housing: 35N min	Shock resistance: 100G (981m/s²)
	Insulation resistance: 10GΩ min	Pitch: 8.50mm	Outgassing: 0.05% TML, 0.00% CVCM
			Compliance: RoHS Compliant REACH / CMRT statements

PCB FOOTPRINT



STRAIGHT THROUGHBOARD



RIGHT-ANGLE THROUGHBOARD

all dimensions in mm

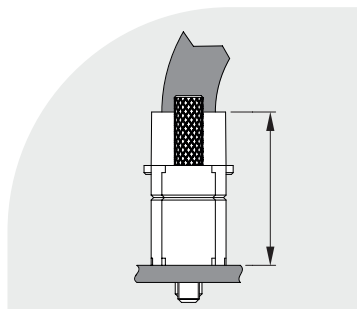
	DIM A	DIM B
ALL LAYOUTS	8.50mm x (No of contacts – 1)	Dim A + 16.50mm

Note 1: Max. distance of hardware to board edge when mated with:

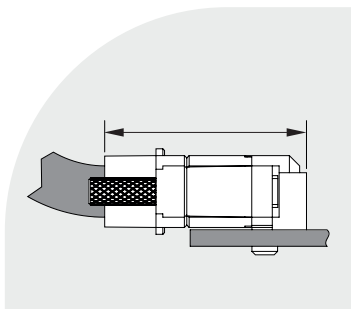
- Unshielded Cable: 15.00mm



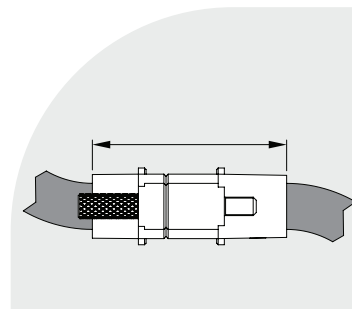
STACKING HEIGHTS



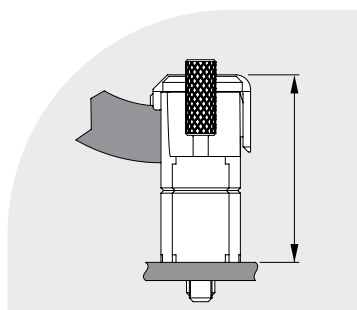
**MALE STRAIGHT TO
FEMALE STRAIGHT CABLE**



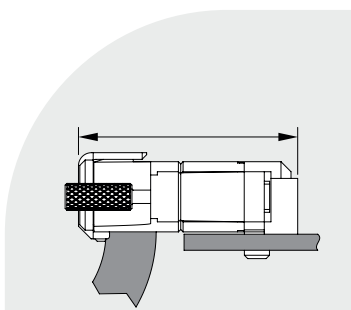
**MALE RIGHT-ANGLE TO
FEMALE STRAIGHT CABLE**



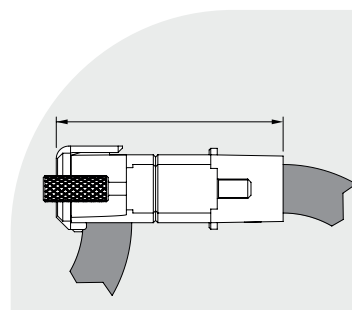
**MALE STRAIGHT CABLE TO
FEMALE STRAIGHT CABLE**



**MALE STRAIGHT TO
FEMALE ANGLED CABLE**



**MALE RIGHT-ANGLE TO
FEMALE ANGLED CABLE**



**MALE STRAIGHT CABLE TO
FEMALE ANGLED CABLE**

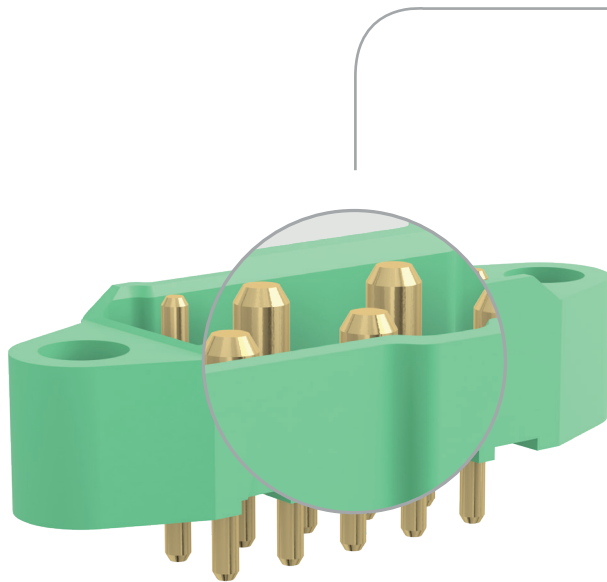
		FEMALE	
		STRAIGHT CABLE ‡	ANGLED CABLE ‡
MALE	STRAIGHT THROUGHBOARD	21.70mm max	25.00mm max
	RIGHT-ANGLE THROUGHBOARD	29.85mm max	33.15mm max
	CABLE ‡	31.90mm max	35.20mm max

‡ The F1 thumbscrew adds an additional 2.40mm max length



M300 RANGE - 10A POWER CONNECTORS

The M300 range supports up to 10A per contact in a small, rugged housing ideal for medium-power applications. With strong resistance to shock, vibration, and temperature extremes, M300 connectors combine secure locking, durability and reliability.



SPACE GRADE PLASTIC

Ideally suited for space, avionics and optronics

Outgassing:

0.86% TML, 0.01% CVM, 0.26% WVR

Flammability Rating:

UL94V-0

Operating Temperature Range:

-65°C to +175°C

DEPENDABLE PERFORMANCE

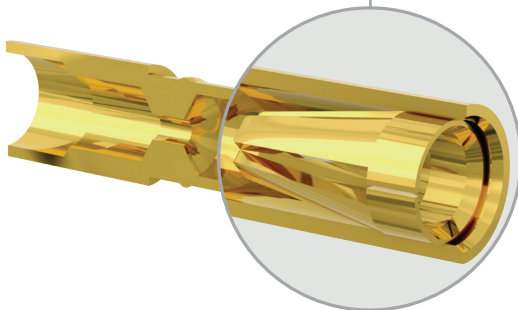
Lightweight, durable

Pitch:

3.00mm

Maximum Voltage

1,800V DC/AC



4-FINGER SIGNAL CONTACT DESIGN

Maintaining contact through high vibration and shock

Vibration Resistance:

10G (98m/s²) for 9 hrs

Shock Resistance:

100G (981m/s²)

Durability:

1,000 mating cycles

Current per Contact:

Up to 10A max

BERYLLIUM COPPER CONTACT

Superior spring force and electrical conductivity under all conditions

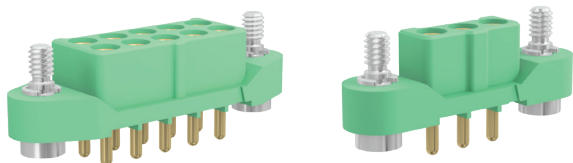
GOLD PLATING

Offering great electrical performance with precisely coated plating finish



M300 – PCB MOUNTED VARIANTS

Female Straight

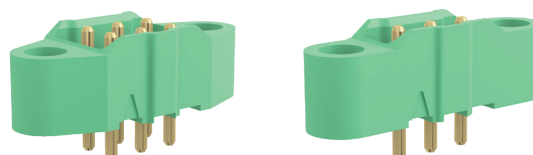


Female connectors with hex socket head jackscrews for board-to-board connections. Throughboard with multiple points of polarization and individually shrouded. Contact number 1 markings. Also available without jackscrews.

PIN COUNT

03 (single row); 06, 10 (double row)

Male Straight



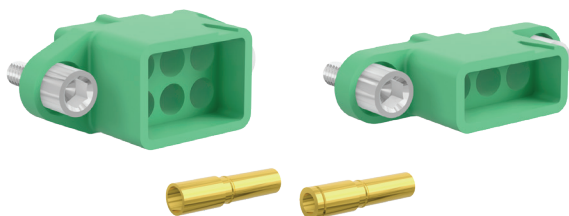
Male connectors with threaded jackscrews for fixing to female connectors – suitable for both board-to-board and cable-to-board applications. Throughboard with multiple points of polarization and shrouded. Contact number 1 markings.

PCB THROUGHBOARD TERMINATIONS

3.20mm

M300 – CABLE VARIANTS

Female

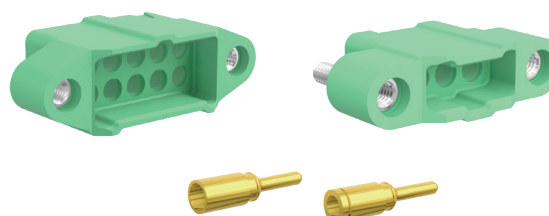


Female connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization and individual shrouding. Backpotting wall included for additional cable assembly stability. Floating jackscrews with hex socket heads.

CABLE SIZES

18 AWG, 20 AWG, 22 AWG

Male



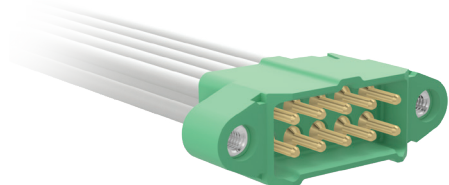
Male connector housings and contacts, for crimping to stranded equipment wire. Housings include polarization and shrouding. Backpotting wall included for additional cable assembly stability. Threaded fixings for fixing to mating female connectors, with optional rear panel mount studs.

PIN COUNT

03 (single row); 06, 10 (double row)



CABLE ASSEMBLIES



M300 cable assembly service – complete cable assemblies or pre-cabled contacts. Manufactured and tested – no tooling required for full assemblies, ready for production use. Choose your cable length - variations made to order.

OPTIONS AVAILABLE

- Complete cable assemblies – single or double ended
- Individual contacts with cable – single or double ended

TOOLING



All the tooling you need to make your own cable assemblies in-house. Instruction sheets and videos are available to assist with your production training. Drivers for jackscrews and slotted nuts.

OPTIONS AVAILABLE

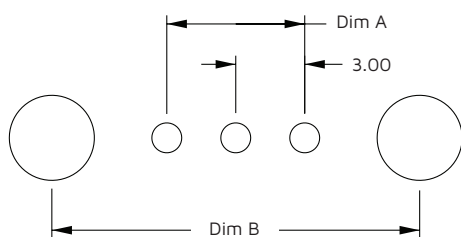
- Hand crimp tools and positioners
- Insertion/Extraction tools
- Screwdriver for hex socket jackscrews



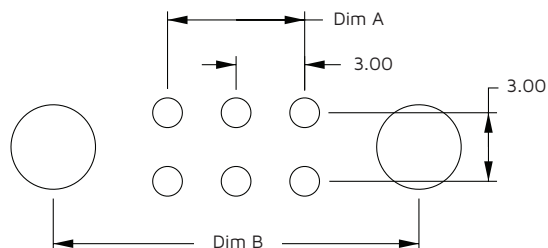
KEY SPECIFICATIONS

MATERIALS	ELECTRICAL	MECHANICAL	ENVIRONMENTAL
Housings: Glass-Filled High Temperature Thermoplastic, UL94V-0	Current per contact: 10A max	Durability: 1,000 mating cycles	Operating temperature: -65°C to +175°C
	Working voltage: 600V AC/DC	Insertion force (per contact): 9N max	Humidity: 90% RH at +40°C for 56 days
Contacts: Copper Alloy, Gold Plating	Maximum voltage: 1,800V AC	Withdrawal force (per contact): 1N min	Vibration resistance: 10G (98.1m/s²) for 9 hrs
	Contact resistance: 6mΩ max	Contact retention in housing: 15N min	Shock resistance: 100G (981m/s²)
Jackscrews: Stainless Steel	Insulation resistance: 100MΩ min	Pitch: 3.00mm	Outgassing: 0.68% TML, 0.01% CVCM 0.26% WVR
			Compliance: RoHS Compliant REACH / CMRT statements

PCB FOOTPRINT



STRAIGHT THROUGHBOARD SINGLE ROW



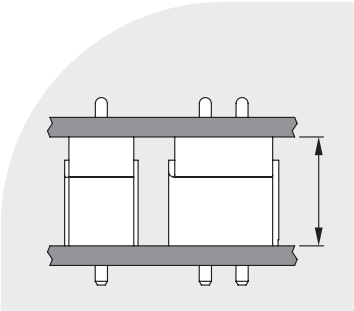
STRAIGHT THROUGHBOARD DOUBLE ROW

all dimensions in mm

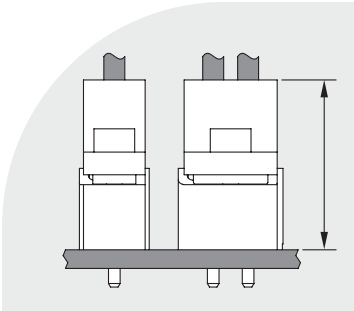
	DIM A	DIM B
ALL LAYOUTS	3.00mm x (No of contacts per row - 1)	Dim A + 10.00mm



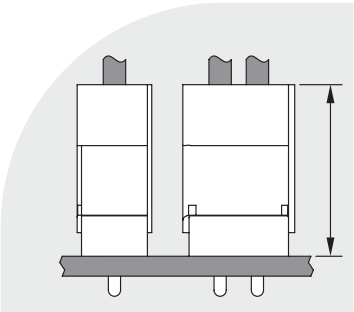
STACKING HEIGHTS



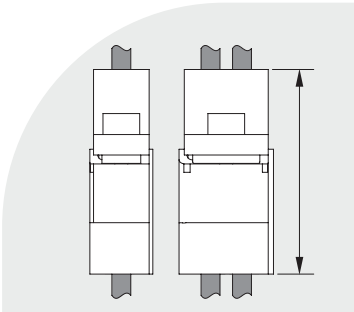
MALE STRAIGHT TO
FEMALE STRAIGHT



MALE STRAIGHT TO
FEMALE CABLE



MALE CABLE TO
FEMALE STRAIGHT



MALE CABLE TO
FEMALE CABLE

		FEMALE	
		STRAIGHT THROUGHBOARD	CABLE
MALE	STRAIGHT THROUGHBOARD	8.90mm	14.90mm max
	CABLE	14.10mm max	19.75mm max

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FOR FURTHER INFORMATION PLEASE CONTACT:
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