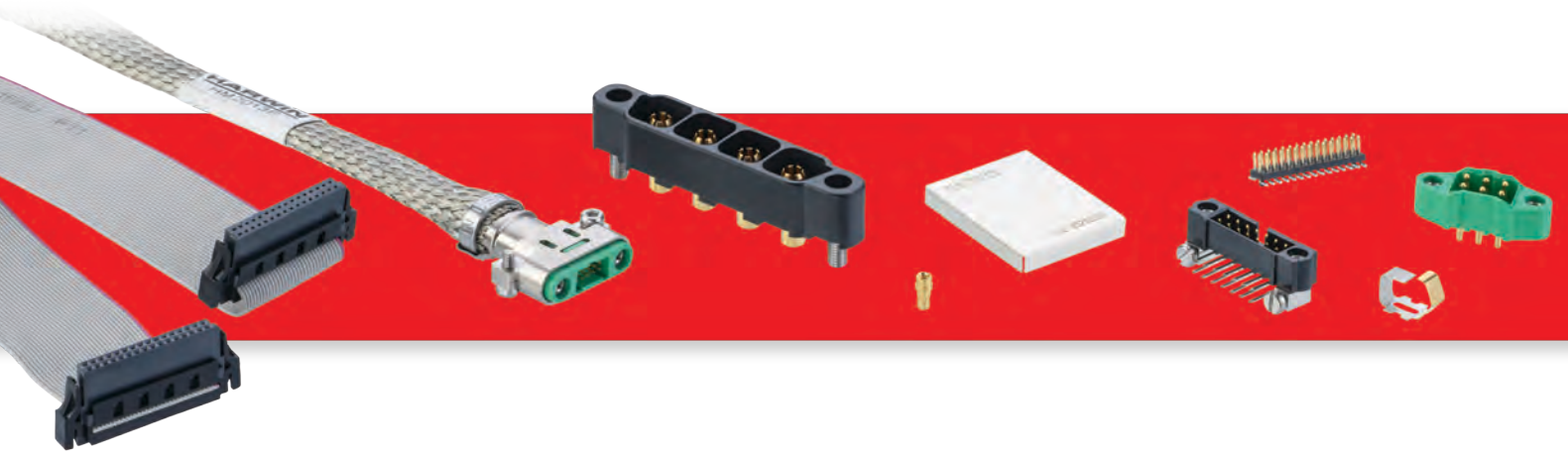


HARWIN

Catalog Snapshot



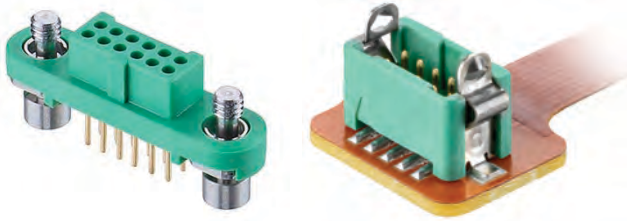
HIGH-RELIABILITY CONNECTORS
DURABLE INDUSTRIAL CONNECTORS
PCB CONNECTORS
PCB SOCKETS
SPRING CONTACTS
EMC SHIELDING
PCB HARDWARE

www.harwin.com

Gecko

1.25mm pitch High Reliability connectors – 2A per contact

Discover the Gecko range – smaller and lighter than similar micro-connectors. Solve vibration and shock issues that challenge your high-reliability design. Ideal for board-to-board and cable routing in tight spaces and dense PCB stacks. Keep your connection secure and reliable with latching or screw-loks.



Features

Free up PCB real estate for more components, reduce stacking heights between PCB layers – 35% space saving over other high performance connectors such as Micro-D

Prevent contact damage and mis-mating with the shrouded rugged housing design and 3 polarization features

Benefit from Harwin's cable assembly expertise, 100% inspected and tested ready-made harnesses and pre-cabled contacts – or choose do-it-yourself components

Fast contact identification in production with No. 1 contact position marked on housings

Extra strain relief for cabled connections with a rear wall for backpotting encapsulation - rear and front panel mount available



Specification Highlights

- 2A per signal, 10A per power contact
- Vibration up to 20G
- Shock up to 100G
- -65°C to +150°C operating temperature
- 1,000 mating cycles durability
- Outgassing to NASA and ESA requirements

Connection style



- Four finger Beryllium Copper female contact

Gecko-SL



- Mate-before Lock fixings, extremely durable
- Signal-only connections, up to 50 contacts
- Lightweight aluminium backshell accessories

Gecko-MT



- Signal and 10A power contacts
- Smallest, lightest mixed technology connectors
- Mate-before Lock fixings, extremely durable accessories

Gecko Latch



- Compact latch design for fast mating
- Signal-only connections, up to 50 contacts
- Solder tabs and barbs for additional PCB retention

M300

3mm pitch High Reliability connectors – 10A per contact

Secure your design with these 10A power connectors built for shock, vibration, and strain relief. Take advantage of the higher current handling in this larger size high-reliability connector. Push your design to 175°C, M300 can take it. Strong and durable, rugged and resilient, with jackscrews for complete security of connection.



Features

Ensure continuous current integrity under extremes of bump, vibration and shock with tough housings and stainless steel jackscrews

Prevent contact damage and mis-mating with the shrouded rugged housing design and 3 polarization features

Benefit from Harwin's cable assembly expertise, 100% inspected and tested ready-made harnesses and pre-cabled contacts – or choose do-it-yourself components

Fast contact identification in production with No. 1 contact position marked on housings

Extra strain relief for cabled connections with a rear wall for backpotting encapsulation



Specification Highlights

- **10A** per contact (5A for 22AWG connections)
- Vibration up to **20G**
- Shock up to **100G**
- **-65°C to +175°C** operating temperature
- **1,000** mating cycles durability
- **Outgassing** to NASA and ESA requirements

Connection style



- Four finger Beryllium Copper female contact

PCB Connection



- Vertical orientation for parallel board-to-board
- Throughboard terminations
- Board mount threaded studs for added strain relief

Cable Housings & Contacts



- Female housings with floating jackscrews
- Male housings with front panel mount options
- Contacts suitable for 18 to 22 AWG stranded wires

Cable Assemblies



- Full cable harnesses ready-made
- Off-the shelf or customized requirements
- 100% inspected and tested

Datamate

2mm pitch High Reliability connectors – 3A per contact

Trust this high-reliability connector in your safety-critical application. Datamate brings a proven track record when failure is not an option. Get maximum flexibility and performance under vibration with a robust, compact connection. Keep your connection secure and reliable with latching, jackscrews or fast-mating bayonet fixings.



Features

Prevent contact damage and mis-mating with the shrouded rugged housing design and built-in polarization features

Benefit from Harwin's cable assembly expertise, 100% inspected and tested ready-made harnesses and pre-cabled contacts – or choose do-it-yourself components

Proven history in Aviation, Space, Industrial and Defense applications

Fast mating for improved assembly times with bayonet 101Lok fixings – just press and quarter turn to engage or release.

Great flexibility in design choices – extra strain relief for cabled connections with rear wall for backpotting encapsulation, or front and rear panel mounting for equipment enclosures

Datamate

Specification Highlights

- **3A** per signal, **8.5A** per T-Contact
- Vibration up to **10G**
- Shock up to **100G**
- **-55°C to +125°C** operating temperature
- **500** mating cycles durability (1,000 for T-contact)
- **Outgassing** to NASA and ESA requirements

Connection style



- Four finger Beryllium Copper female contact

Datamate J-Tek



- Durable stainless steel jackscrews
- Up to 50 contacts in double row, 96 in triple row
- Lightweight aluminium backshell accessories

Datamate T-Contact



- Patented 6-finger Beryllium Copper female contact
- Up to 8.5A per contact on 2mm pitch
- Compatible with J-Tek housings & mating males

Datamate L-Tek



- Compact locking latch design for fast mating
- Single and double row, up to 34 contacts
- Over 40 years of proven track record

Datamate Mix-Tek

4mm pitch High Reliability connectors – 20A/40A power or 50Ω coax

Trust this high-reliability connector in your safety-critical application when failure is not an option. Get maximum flexibility with power and coax ganged connectors, or add signal for multiple connectors in one. Maintain performance under vibration with a robust, compact connection and jackscrews or fast-mating bayonet fixings.



Features

Prevent contact damage and mis-mating with the shrouded rugged housing design and built-in polarization features

Benefit from Harwin's cable assembly expertise, 100% inspected and tested ready-made harnesses and pre-cabled contacts – or choose do-it-yourself components

Ensure continuous conductivity with durable stainless steel jackscrews for vibration resistance, and lightweight aluminium backshells for EMC protection

Fast mating for improved assembly times with bayonet 101Lok fixings – just press and quarter turn to engage or release

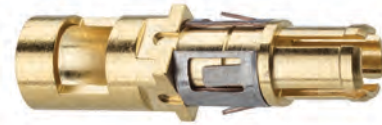
Ultimate flexibility with wide selection of off-the-shelf connectors, or consult our Expert team for customized options for your specific needs

Datamate **Mix-Tek**

Specification Highlights

- 20A or 40A power contacts
- 50Ω, 6GHz coax contacts
- Vibration up to 10G
- Shock up to 100G
- -55°C to +125°C operating temperature
- 500 mating cycles durability (1,000 for T-contact)
- Outgassing to NASA and ESA requirements

Connection style



- Multi-finger Beryllium Copper contacts

Power



- 2 to 12 contacts in single row
- Up to 20A standard power contact (12-20AWG)
- Up to 40A high power contact (10AWG)

Coax



- 50 Ohm contacts suitable for signal/audio
- 2 to 12 contacts in single row ganged connection
- Ready-made RG178 cable assemblies in stock

Signal + Power



- Off-the-shelf signal and power combinations
- Each power/coax uses same space as 4 signal
- Kits & tooling available for DIY cable assemblies

Kona

8.5mm pitch High Reliability connectors – 60A per contact

The ultimate Hi-Rel connector for power handling capability and voltage flashover resistance. Fully rugged construction to withstand shock and vibration, but compact and lightweight compared to equivalent connections. Thumbscrew fixings for easy strain relief on cable-to-board connections.



Features

Ensure continuous current integrity under extremes of bump, vibration and shock with tough housings and stainless steel screw-locks

Prevent contact damage and mis-mating – individually shrouded contacts sit in a rugged housing design with double polarization features

Benefit from Harwin's cable assembly expertise, 100% inspected and tested harnesses, or choose do-it-yourself components

Fast contact identification in production with No. 1 contact position marked on housings

Mate-before-lock screw fixings for quick and simple connector mating – choose thumbscrews or front panel mounting

KONA

Specification Highlights

- **60A** per contact
- **3,000V AC** for 1 minute maximum voltage
- Vibration up to **20G**
- Shock up to **100G**
- **-65°C to +150°C** operating temperature
- **250** mating cycles durability
- **Outgassing** to NASA and ESA requirements

Connection style



- Six finger Beryllium Copper male contact

PCB Connection



- Vertical orientation male connectors
- Throughboard terminations
- Board mount threaded studs for added strain relief

Cable Housings & Contacts



- Floating thumbscrews or panel mount
- Female contacts suitable for 8 AWG stranded wire

Cable Assemblies

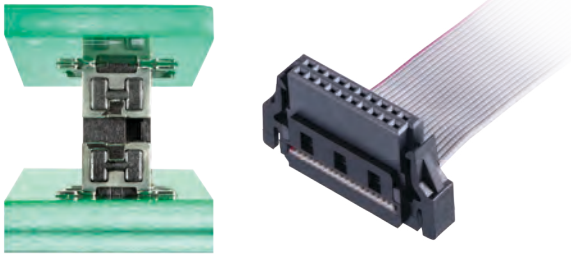


- Full cable harnesses ready-made
- 100% inspected and tested

Archer Kontrol

1.27mm pitch Durable Industrial connectors – 1.2A per contact

Get the stacking height you need in this highly flexible board-to-board system. Use the parallel mating to stack PCBs, or add a right-angle connector for motherboard to daughterboard. Add IDC cables for cable-to-board. Avoid damage with resistance to lateral and twisting forces, and use as blind-mate with tolerance to mis-mating.



Features

All orientations of PCB mating possible – parallel/mezzanine, motherboard to daughterboard (right angle), and co-planar/edge to edge

Stacking height from 8mm to 20mm from 9 parallel board-to-board combinations with up to 1.5mm separation

Benefit from Harwin's cable assembly expertise, 100% inspected and tested ready-made harnesses with IDC connectors

Prevent contact damage and mis-mating with the shrouded durable housing design and built-in polarization features

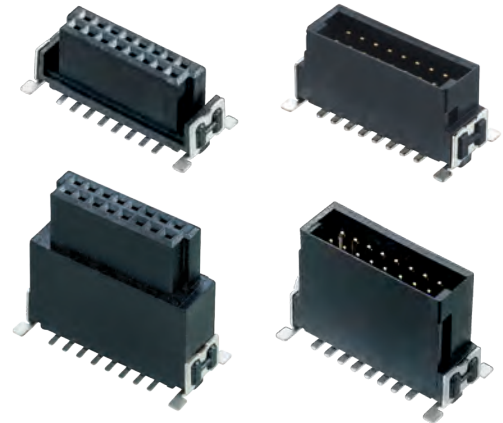
Easy to assemble to the PCB and enhanced solder strength with location pegs and SMT retention features – supplied in tape & reel for automation



Specification Highlights

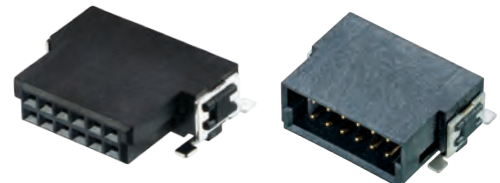
- **1.2A** per contact (PCB connector, 0.5A cable assemblies)
- Vibration up to **20G**
- **-55°C to +125°C** operating temperature (PCB connector, **-20°C to +105°C** cable assemblies)
- **500** mating cycles durability
- Up to **3Gbits/s** data rate (similar to SATA II)

Vertical PCB Connection



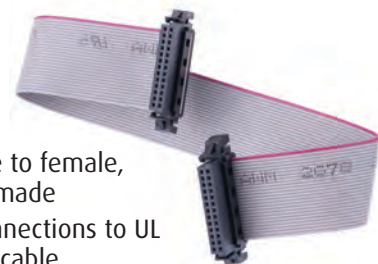
- From 8mm to 20mm stack height
- 3 options in both male and female
- Connectors rated for up to 1.5mm separation

Horizontal PCB Connection



- Adds motherboard/daughterboard or co-planar mating options

Cable Assemblies

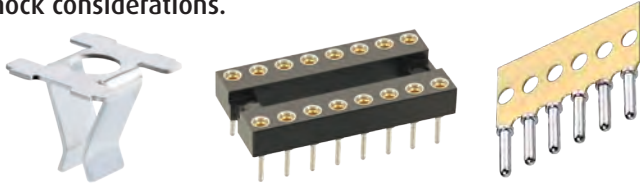


- Female to female, ready-made
- IDC connections to UL ribbon cable

PCB Sockets

Board-Mounted Contacts for Pins and Components

Discover the right single connection socket for your application. Choose single-piece SMT contacts in Tape and Reel for high volume production. Switch to two-piece turned shell sockets for high-reliability applications, with vibration and shock considerations.



Features

Very low board-to-board stacking or variable height with longer mating pins using open-ended sockets

Knurled shell designs for added mechanical retention on throughboard sockets

Specification Highlights

- 6-9A per SMT socket, 2-20A per Throughboard socket
- Mating pin from $\varnothing 0.46\text{mm}$ to $\varnothing 2.30\text{mm}$
- Up to **1,000** mating cycles durability

Surface Mount



- Ultra-low profile, in Tape and Reel for automation

Throughboard



- Vibration, shock and temperature resistant

Circular Connectors

Waterproof and Durable – 13A per contact

Benefit from high performance with rugged and waterproof design. Meets MIL-DIL-5015 requirements with added compliance to RoHS for industrial applications. Ideal for COTS substitution or military-grade levels of performance for the commercial market.

Features

Durable backshells for free cable connectors, gasket seal supplied with panel mount versions, dust caps and rubber bushings for all-round dirt and water ingress protection

Specification Highlights

- 3A per contact
- Vibration up to **10G**, shock up to **50G**
- **-55°C to +125°C** operating temperature
- **500** mating cycles durability
- Waterproof at **1.8m depth for 48hrs** (exceeds IP67)

Cable Connectors for 16-22AWG

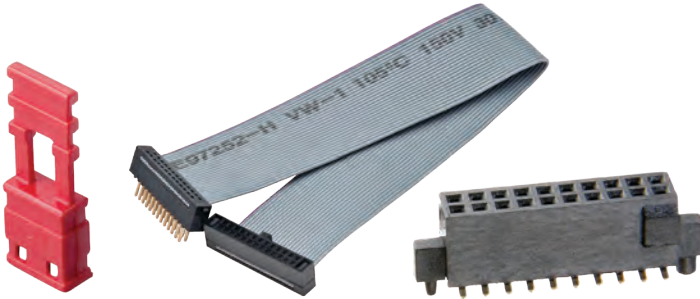


- Panel mount with gasket to seal to enclosure
- Use rubber bushings with free cable connectors to maintain IP67 waterproof rating

PCB Connectors

1mm to 2.54mm pitch Industry-standard Connectors

Keep your designs compact and reliable with these connectors, industry-standard compatible with existing designs. Confidence in quality and confidence in supply with cable-to-board or board-to-board options. Make your connection easier with pre-cabled contacts, or full cable assembly services on request.



Features

Simple economic designs suitable for all applications in a variety of pitches, pin counts and orientations

Benefit from Harwin's cable assembly expertise, 100% inspected and tested ready-made IDC cable harnesses and pre-cabled contacts – or choose do-it-yourself components

Hardware programming with jumper sockets in 1.27, 2.00 and 2.54mm pitch – compatible with any equivalent pin header

Surface Mount and Throughboard connectors in vertical and horizontal orientations for parallel or right angle board connections

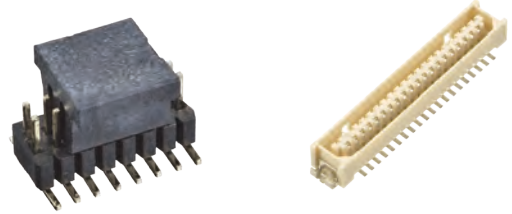
Avoid mis-mating with polarized connectors – available in 1.00, 1.25 and 1.27mm pitch.



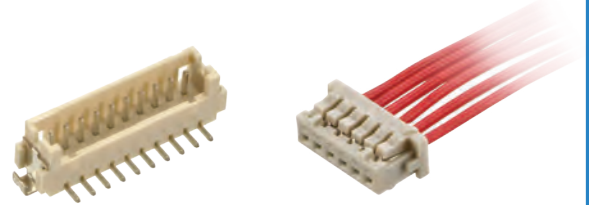
Specification Highlights

- Up to **3A** max per contact
- **Tape and Reel** packaging on many SMT products
- **Compatible** with industry standard connectors
- **Stocked in depth** across a global distribution network
- **Cable Assembly Service** on request

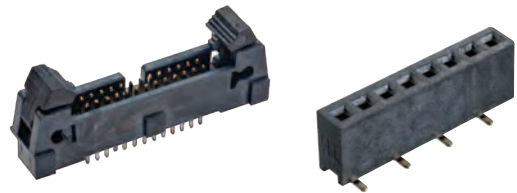
M40 – 1mm pitch, 1A per contact



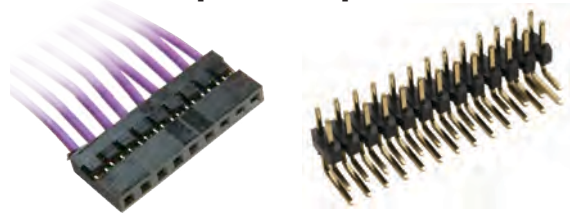
M30 – 1.25mm pitch, 1A per contact



Archer – 1.27mm pitch, 1A per contact



M22 – 2mm pitch, 2A per contact



M20 – 2.54mm pitch, 3A per contact



Spring Contacts

Individual Contacts with Increased Mating Cycles

When you need a position-tolerant connection choice or high durability, use a Harwin Spring Contact. Specify sprung metal contacts or pogo pins with internal springs for fast and simple mating. Add SMT contact pads for a durable gold mating surface. For automated test equipment beds, add an array of ATE Test probes.



Features

Design flexibility ready for automated assembly, including anti-hook, positive stop, multidirectional and miniature antenna contact styles

Prototyping made easy with a Development Kit of 16 different SMT contact styles – free refills on registration

Improved SMT placement with location pegs on pogo pins

Easy to replace two-part spring probes – permanent mounted sleeves, with replaceable probes and a variety of head styles

Contact Options



- SMT Spring Contacts for small compression range
- Pogo Pins for larger range, PCB mounted
- ATE Probes for test bed equipment
- SMT Contact Pads for a durable mating area

Hardware

PCB Accessories with built-in Quality

Additional hardware accessories and circuit connections for every application. Choose quality boardware products supplied by Harwin and stocked in depth.

Surface Mount



- Test Points give fixed locations for probes to take readings and avoid damage to other components
- Jumper Links simplify PCB design by bridging tracks
- Cable Management or Grounding clips for low profile cable securing or grounding braided cable
- Low Profile Coin Cell Holders

Throughboard

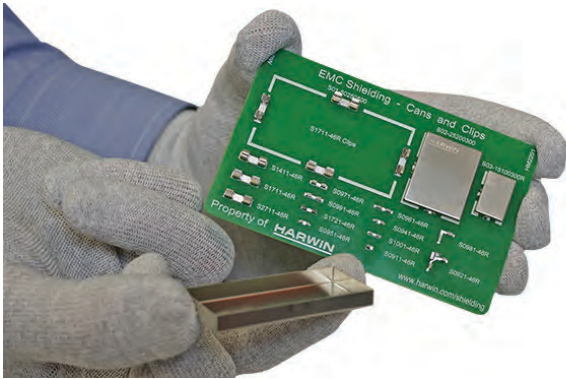


- Metal or Plastic Spacers / Pillars / Standoffs for PCB spacing and securing to enclosure
- General purpose terminal pins and turret lugs
- Shorting links – fixed for track bridging, or insulated removable for hardware programming

EMC Shielding

Removable/Replaceable Board Level Shielding

Stop EMI (electro-magnetic interference) at the circuit level, with the Harwin Shield Clip and Can system. Simple to install, easy to use, and ideal for every stage of your process from prototyping to volume production. Eliminate hot spots and damage caused by hand soldering. Reduce time spent on secondary operations.



Features

Reduce time spent on secondary operations, no hand soldering of cans – surface mounted clips are assembled and soldered with other devices

Simply and quickly complete the board level shield system by pushing the can into the clips

Access your shielded components at any time for rework, maintenance or upgrade, remove and the replace the can multiple times

Protect sensitive devices from hotspots and accidental damage caused by de-soldering shield cans

Further minimize signal ingress/leakage and address localized eddy interference by using the clip with the integrated corner shield

Specification Highlights

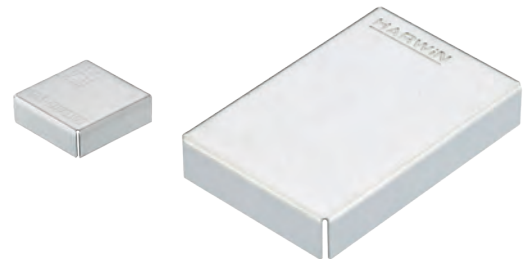
- Clips for **0.13 to 1.00mm** can thickness
- Can thicknesses of **0.15mm, 0.20mm and 0.30mm**
- **Nickel Silver** can material
- **0.80mm to 5.45mm** clip height
- **2.50mm to 5.00mm** standard can height

SMT Clips



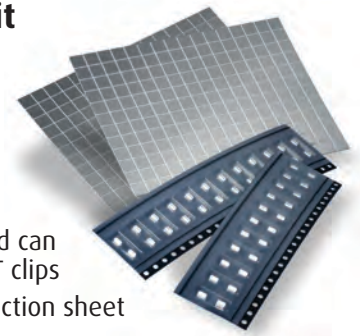
- Low force or low profile options
- Tape and reeled for automated surface mount placement and assembly
- Corner and corner shield styles
- Single clip compact design for space saving

Shield Cans



- Ready-made, compatible with SMT clips

Prototype Kit



- Two pre-scored can sheets, 24 SMT clips
- Includes instruction sheet



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