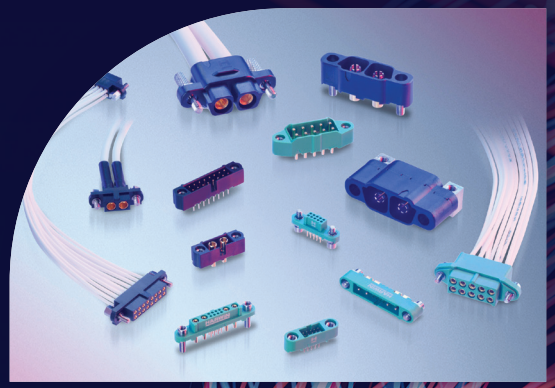
HARWIN

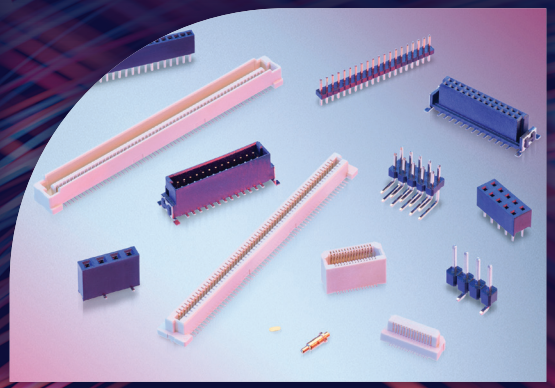
CONNECT TECHNOLOGY
WITH CONFIDENCE

PRODUCT RANGE
OVERVIEW

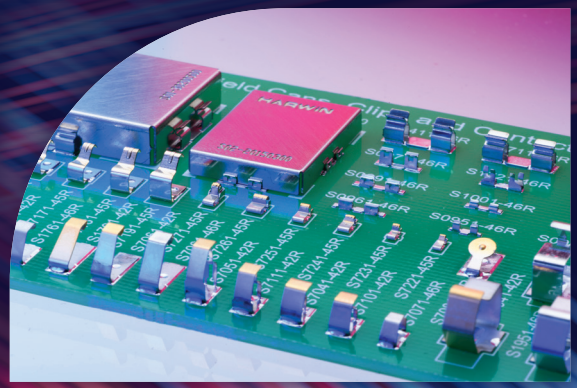
HRi
RANGE



BBi
RANGE



EZi
RANGE



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HELPING ENGINEERS SHAPE THE FUTURE:

RELIABLE, HIGH-PERFORMANCE TECHNOLOGIES FOR DEMANDING APPLICATIONS

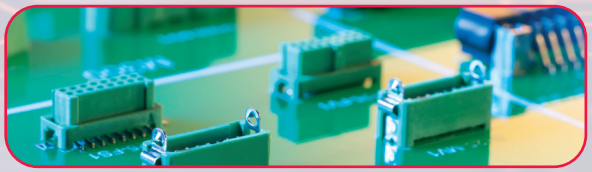
FROM SUBMARINES TO SATELLITES, INDUSTRIAL AUTOMATION TO UNCREWED VEHICLES, AND MEDICAL EQUIPMENT TO AUTOMOTIVE ELECTRONICS, WE PROVIDE CONNECTIONS THAT YOU CAN DEPEND ON.

For over 70 years, Harwin has supported the incredible work of engineers with cutting-edge connectors that meet demanding specifications in the world's most important industries.

Uncompromising in our pursuit of quality, safety and reliability, we innovate and perfect technologies for ultra-high-performance operation in the harshest of environments and the smallest of form factors.

HIGH RELIABILITY WITH SUPREME PERFORMANCE

HRi RANGE



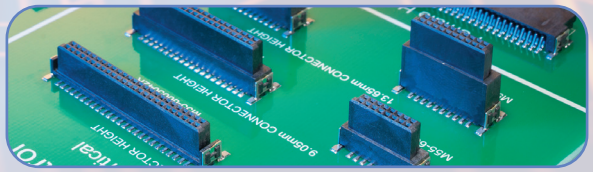
gecko
M300
Datamate
KONA

High-reliability (Hi-Rel) interconnect for satellites, aerospace, medical devices, defense and more. Suitable for mission-critical applications where high performance and dependability are absolutely vital. The portfolio includes the compact and lightweight Gecko (1.25mm pitch), high-density Datamate (2.00mm pitch) and the high-power (60A) Kona series.

Click here for more →

DEPENDABLE CONNECTIVITY ACROSS THE BOARD

BBi RANGE



KONTROL
FLECTO
INDESS
ARCHER

Highly durable board-to-board connectors supporting data rates up to 24Gbps and ideally suited to industrial and embedded applications. Offering ease of integration and addressing acute space constraints, these high-density products cover pitches from 0.5mm to 2.54mm and include floating connectors compatible with high-speed automated manufacture.

Click here for more →

INNOVATIVE DESIGNS FOR EASY ASSEMBLY

EZi RANGE

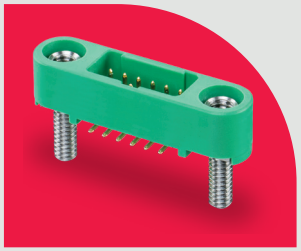
SOCKETS
SPRING CONTACTS
POGOPINS
SHIELDING

Innovative board-level shielding and associated accessories that support ease of assembly and simplified production. Highlights include EMI/RFI shielding cans, simple-to-adapt shielding kits, contacts, sockets, cable clips and pogo pins.

Click here for more →

SWaP OPTIMIZED CONNECTORS

gecko



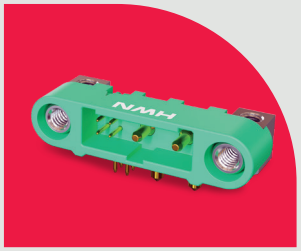
GECKO LATCH / SCREW-LOK

MINIATURE & MIGHTY: HIGH-RELIABILITY SIGNAL CONNECTORS FOR SWAP-C OPTIMIZATION

Ideal for space-constrained applications exposed to high vibration, shock and extreme temperatures, **Gecko** high-performance, micro-miniature signal connectors deliver high reliability with a 1.25mm pitch.

Compact design ensures significant space saving over industry standard alternatives at weights that are up to 75% lighter. Cable-to-board, board-to-board and cable-to-cable options with up to 50 pins and SMT and through-hole variants provide a wide choice for SWaP-optimized, mission-critical applications.

Click here for more ⟶



GECKO-MT

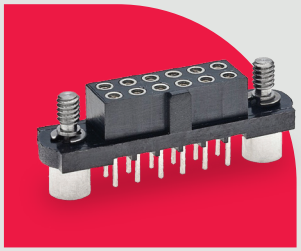
SMALLEST, LIGHTEST MIXED-LAYOUT CONNECTORS FOR HIGH RELIABILITY SIGNAL + POWER

Combining the 1.25mm pitch **Gecko** signal connector system with 10A power contacts, **Gecko-MT** is a flexible mixed technology layout that brings all the performance, reliability and size benefits of the **Gecko** family to mission-critical applications that demand interconnects for both signal and power.

Click here for more ⟶

SWaP OPTIMIZED CONNECTORS

Datamate®

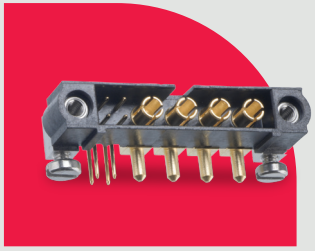


DATAMATE

FLEXIBLE, VERSATILE AND TEMPERATURE-RESISTANT SIGNAL CONNECTORS

Datamate provides high-reliability, 2.00mm-pitch connections with proven performance for applications that need to withstand shock, vibration and extremes of temperature. Designed to address the SWaP criteria of today's mission-critical systems, **Datamate** is perfect for use in harsh environments when space and weight savings are needed without compromising signal integrity and electrical connectivity. Available in cable-to-board, board-to-board and cable-to-cable options, the **Datamate** range includes single-, double- and triple-row configurations and provides space and weight savings over industry-standard alternatives.

Click here for more ⟶



DATAMATE MIX-TEK

HIGH RELIABILITY SIGNAL/POWER/COAX CONNECTORS

The **Datamate** family also includes **Datamate Mix-Tek** – a range of products that can integrate up to 12 single-row power or coax 4.00mm pitch contacts with double-row 2.00mm signal contacts in a single connector.

Datamate Mix-Tek offers the same levels of protection against shock, vibration and temperature while delivering the ultimate levels of design flexibility for mission-critical applications. Again, multi-finger contacts deliver proven signal integrity under heavy vibration and shock, maintaining electrical connectivity in a variety of harsh environments.

Click here for more ⟶

PRODUCT DATA

	gecko		Datamate	
	GECKO LATCH / SCREW-LOK	**GECKO-MT**	**DATAMATE**	**DATAMATE MIX-TEK**
Current per contact:	2.8A max	10A max for power contacts 2.8A max for signal contacts	3.3A max	40A max for power contacts 3.3A max for signal contacts
Contact resistance:	25mΩ max	25mΩ max	25mΩ max	25mΩ max
Maximum voltage:	600V AC/DC	600V AC/DC	1,200V AC/DC	1,200V AC/DC for power/signal 1,000V AC for coax
Durability:	1,000 mating cycles	1,000 mating cycles	500 mating cycles	500 mating cycles
Pitch:	1.25mm	1.25mm for signal contacts	2.00mm	4.00mm for power/coax contacts 2.00mm for signal contacts
Operating temperature:	-65°C to +150°C	-65°C to +150°C	-55°C to +125°C	-55°C to +125°C
Vibration resistance:	20G (196m/s²) for 2 hrs	20G (196m/s²) for 2 hrs	10G (98m/s²) for 6 hrs / 20G (196m/s²) for 2 hrs	10G (98m/s²) for 6 hrs / 20G (196m/s²) for 2 hrs
Shock resistance:	100G (981m/s²) in Z axis 50G (490m/s²) in X/Y axis	100G (981m/s²) in Z axis 50G (490m/s²) in X/Y axis	100G (981m/s²)	100G (981m/s²)

APPLICATIONS

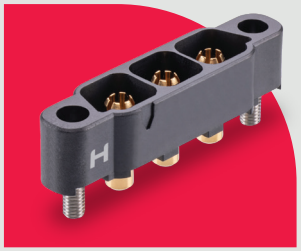
AVIATION AND UAVs

NEW SPACE

MEDICAL

DEFENSE & SECURITY

KONA®



KONA

POWER AND RELIABILITY: HIGH-CURRENT CONNECTORS FOR MISSION-CRITICAL APPLICATIONS

Kona delivers high-reliability, lightweight, 8.50mm-pitch power connections for applications that simply cannot fail. Capable of 60A of continuous current per contact, these rugged cable-to-board connectors maintain electrical continuity under heavy vibration and shock and extremes of temperature. Pin counts of 2, 3 and 4 deliver maximum combined currents up to 240A and accommodate voltages to 3kV.

Six-finger, gold-plated contacts are individually shrouded on both male and female connectors to prevent physical damage and avoid accidental touching, while good spring force achieves electrical connectivity in a variety of harsh environments. An innovative mate-before-lock mechanism prevents any damage during the locking process by ensuring the contacts are fully mated before engaging the fixings.

FEATURES

- Quick mating screw fixings for reliable proven connections
- High power connection under extreme environments – vibration, shock and temperature resistance
- Low outgassing, great for space, avionics and optronics

Click here for more →

PRODUCT DATA

KONA®

Current per contact:	60A max	**Pitch:**	8.50mm
Contact resistance:	2mΩ max	**Operating temperature:**	-65°C to +150°C
Maximum voltage:	3,000V AC	**Vibration resistance:**	20G (196m/s²) for 12 hrs
Durability:	250 mating cycles	**Shock resistance:**	100G (981m/s²)

APPLICATIONS

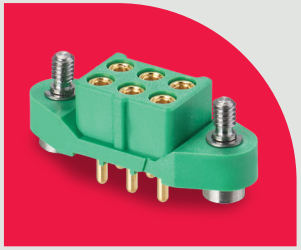
AVIATION AND UAVs

NEW SPACE

HIGH-END INDUSTRIAL

DEFENSE & SECURITY

MEDICAL



M300

COMPACT POWER SOLUTION, RESISTANT TO VIBRATION & SHOCK

M300 connectors are designed for challenging environments, offering a wide temperature range, vibration and shock resistance, and strain-resistant mating. These connectors feature durable, robust housings that are both tough and lightweight, handling power in a small, versatile design.

They are easy to assemble with polarization, shrouding, and position 1 marking. Available in cable-to-cable, cable-to-board and board-to-board options, **M300** connectors come with pin counts of 3, 6, and 10, supporting up to 10A per contact. With a maximum voltage rating of 1,800V, they operate in temperatures from -65°C to +175°C. Gold plating ensures over 1,000 mating operations, while stainless steel jackscrews and backpotting resin provide strain relief.

FEATURES

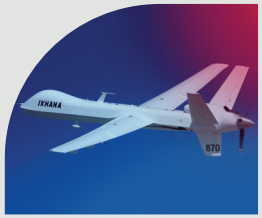
- Wide temperature range for a wide variety of challenging environments
- Power connection under extreme environments – vibration, shock and temperature resistance
- Low outgassing, great for space, avionics and optronics

Click here for more ⟶

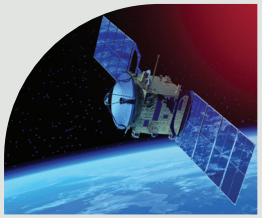
PRODUCT DATA

M300			
Current per contact:	10A max	**Pitch:**	3.00mm
Contact resistance:	6mΩ max	**Operating temperature:**	-65°C to +175°C
Maximum voltage:	1,800V AC	**Vibration resistance:**	10G (98.1m/s²) for 9 hrs
Durability:	1,000 mating cycles	**Shock resistance:**	100G (981m/s²)

APPLICATIONS



AVIATION AND UAVs



NEW SPACE

HIGH-END INDUSTRIAL

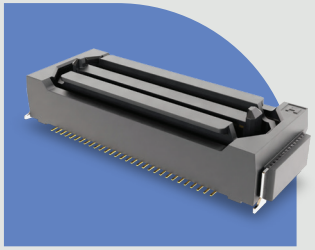
DEFENSE & SECURITY

MEDICAL

FLECTO

BBi RANGE

FLOATING FINE PITCH CONNECTORS



FLECTO

FINE-PITCH, HIGH-PIN-COUNT FLOATING CONNECTORS FOR HIGH-SPEED AUTOMATED MANUFACTURE

The **Flecto** family of floating, board-to-board connectors addresses the data and power transfer demands of high-performance applications while providing the positional tolerance needed to support high-speed automated assembly of PCBs with multiple connector pairs.

Offering up to 160 contacts in a symmetrical double row layout, the **Flecto** floating connector family is available with three choices of miniature pitches: 0.5mm (.0197"), 0.635mm (.025") and 0.8mm (0.0315").

By accommodating movement of up to ±0.8 mm in both the X and Y axes, **Flecto** allows for accurate placement of multiple connectors between the same two PCBs, where the sum of misalignments might otherwise present challenges for high-speed, high-precision mating.

FEATURES

- Movement in X, Y and Z axes during and after mating for multiple board-to-board connections
- Low-stress mated connections with mated heights up to 29.9mm nominal
- Supplied in tape & reel for high volume surface mount assembly

Click here for more →

PRODUCT DATA

FLECTO			
Current per contact:	Up to 0.5A (signal) 3.0A max (power)	**Pitch:**	0.50mm (.0197") 0.635mm (.025") 0.80mm (.0315")
Maximum voltage:	Up to 250V AC/DC	**Data rate:**	4GHz, 8Gb/s for 0.50mm (.0197") pitch 6GHz, 12Gb/s for 0.635mm (.025") pitch 2.5GHz, 5Gb/s for 0.8mm (.0315") pitch
Durability:	Up to 100 operations	**Operating temperature:**	-55°C to +105°C (signal+power) -40°C to +105°C (signal only)

APPLICATIONS

ELECTRIC VEHICLES

FACTORY AUTOMATION

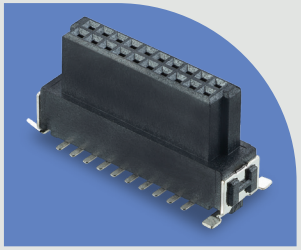
SECURITY CAMERAS

LED DISPLAYS

KONTROL

BBi RANGE

DURABLE INDUSTRIAL CONNECTORS



KONTROL

DURABLE, HIGH-PERFORMANCE 3Gb/s INDUSTRIAL GRADE CONNECTORS

The **Kontrol** family features flexible, rugged and space-saving board-to-board and board-to-cable connectors designed to withstand the rigorous demands of industrial applications ranging from factory automation systems to hand-held equipment.

Featuring a 1.27mm pitch, **Kontrol** PCB and IDC cable connectors support data rates up to 3Gbps (double row) and deliver reliable, space-saving connections for edge-to-edge, motherboard-to-daughterboard and cable-to board designs. Board-to-board mating performs from fully mated to 1.5mm separation, giving a full range of mating heights from 8mm to 20mm.

Polarization, contact protection and the ability to tolerate a significant amount of mating mis-alignment supports automated manufacturing and fault-free assembly.

FEATURES

- Robust and fully shrouded, withstands lateral and twisting forces on mating
- Polarized housings for error-free assembly
- Supplied in tape & reel for high volume assembly, SIL & DIL options available

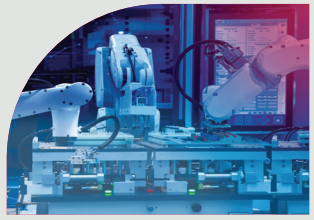
Click here for more →

PRODUCT DATA

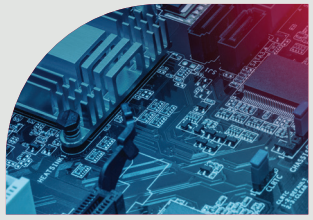
KONTROL

Current per contact:	1.2A max (PCB, single row cable) 0.5A max (double row cable)	**Pitch:**	1.27mm (.05”)
Maximum voltage:	500V AC	**Operating temperature:**	-55°C to +125°C for PCB -20°C to +105°C for cable
Data rate:	Up to 3Gb/s (double row)	**Vibration resistance:**	20G (196m/s²) for 12 hrs
Durability:	500 mating cycles	**Board-to-Board height (vertical):**	8mm to 20mm (double row)

APPLICATIONS



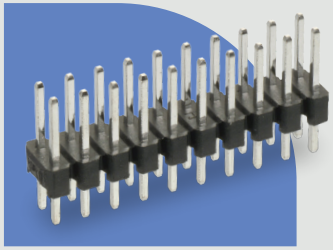
FACTORY AUTOMATION



EMBEDDED COMPUTING

HANDHELD MONITORING

BATTERY MANAGEMENT



INDESS

PIN HEADERS AND SOCKETS FOR SIMPLE, DEPENDABLE, COST-EFFECTIVE CONNECTIVITY

Featuring SMT, throughboard and cable connectors and jumper sockets, Harwin's **INDESS** range addresses requirements for the industry-standard 2.54mm and 2.00mm pitch connectors that have become the cornerstone of modern electronics design.

Stocked in-depth across the global distribution network, these high-quality, reliable and cost-effective connectors are available in vertical and horizontal orientations and single- and double-row variants with contact counts from 2 to 100.

Males consist of square pins held in place by a plastic carrier strip, while female twin-beam connectors are enclosed in a rectangular protective housing.

FEATURES

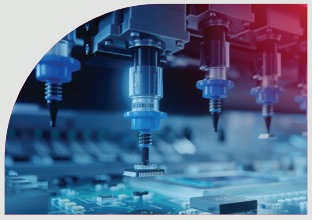
- Dependable and reliable, easy to use
- Compatible with industry standard equivalent connectors
- Quality cost-effective connections

Click here for more →

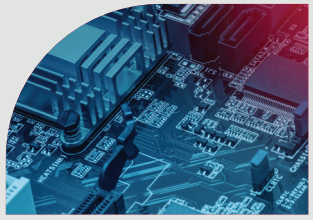
PRODUCT DATA

INDESS		
Pitch:	**2.54mm (.1")**	**2.00mm (.079")**
Current per contact:	3A max	2A max
Mating height range:	6.29mm to 12.63mm (vertical)	3.60mm to 6.80mm (vertical)
Durability:	300 mating cycles for gold / 50 mating cycles for tin	
Operating temperature:	-25°C to +105°C for PCB / -25°C to +85°C for cable	

APPLICATIONS



FACTORY AUTOMATION

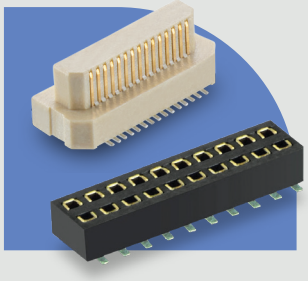


EMBEDDED COMPUTING

METERING & MONITORING

CONSUMER ELECTRONICS

PIN HEADERS & SOCKETS



ARCHER

COMPACT HIGH-SPEED, HIGH-PIN-COUNT MEZZANINE CONNECTORS

Available with pitches of 0.80mm and 0.50mm supporting respective data rates of 12GHz/24Gbs and 8GHz/16Gbps, **Archer** mezzanine connectors deliver industrial-grade connections for high-speed communications from minimum PCB real-estate.

PIN HEADERS AND SOCKETS FOR DEPENDABLE PERFORMANCE

Archer 1.27mm pitch pin headers and sockets are based on a miniaturized half-pitch version of the M20 2.54mm pitch series and deliver reliable, all-purpose connectivity with cost-effective simplicity and PCB real estate reduction. Fully compatible with industry-standard designs and stocked in depth across the global distribution network, these connectors offer space savings of up to 38% versus 2.00mm pitch options, and 50% when compared to conventional 2.54mm pitch designs.

FEATURES

MEZZANINE CONNECTORS

- High speed connectivity for signal/data transfer in industrial applications
- Polarized housings for error-free assembly
- Supplied in tape & reel for high volume surface mount assembly

PIN HEADERS AND SOCKETS

- Dependable and reliable, easy to use
- Compatible with industry standard equivalent connectors
- Quality cost-effective connections

Click here for more →

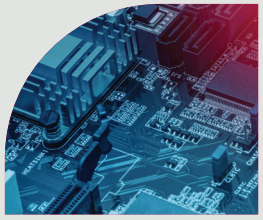
PRODUCT DATA

	ARCHER MEZZANINE CONNECTORS		ARCHER PIN HEADERS AND SOCKETS	
Pitch:	**0.80mm**	**0.50mm**	**Current per contact:**	0.5A to 1.75A
Data rate:	12GHz, 24Gb/s	8GHz, 16Gb/s	**Contact resistance:**	30mΩ max
Contact resistance:	100mΩ max	80mΩ max	**Durability:**	25 to 600 mating cycles
Operating temperature:	-40°C to +125°C	-55°C to +85°C	**Pitch:**	1.27mm (.05")
Mating height:	5mm	8mm	**Operating temperature:**	-40°C to +105°C for PCB -20°C to +105°C for cable
Current per contact:	0.5A max			
Durability:	30 mating cycles			

APPLICATIONS

IOT MODULES

FACTORY AUTOMATION



EMBEDDED COMPUTING

METERING & MONITORING

CONSUMER ELECTRONICS

SOCKETS

SINGLE FEMALE THROUGHBOARD AND SMT PCB CONTACTS

Harwin offers a comprehensive range of durable, low-profile single contact connections that ensure low contact resistance and high conductivity for use with devices or as PCB stacking connections. These **sockets** are compatible with removable jumper links for hardware programming.

PCB Sockets provide the simplest method to prevent heat damage to sensors, ICs and other sensitive or expensive components. Simply solder the **sockets** in a suitable layout on the PCB, then plug the vulnerable item in afterwards.

Ideal for components with oddform termination layouts, Harwin's technology ensures that rework, replacement or upgrade does not require any de-soldering and eliminates the potential for further heat damage.

FEATURES

- Simple and effective method for connecting PCBs and oddform devices
- Remove de-soldering for rework or replacing / upgrading ICs and modules
- Compact and lightweight for wearables and hand-held devices

Click here for more ⟶

PRODUCT DATA

SOCKETS		
PCB connection type:	**SMT**	**Throughboard**
Current per contact:	5A to 9A	2A to 20A
Contact resistance:	25mΩ max	25mΩ max
Durability:	25 to 1,000 mating cycles	500 mating cycles
Operating temperature:	-40°C to +105°C min	-55°C to +125°C
Mating pin range:	Ø0.80mm to Ø1.90mm	Ø0.41mm to Ø2.30mm

APPLICATIONS

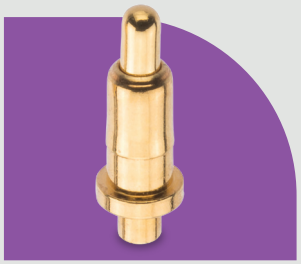
INDUSTRIAL

COMMUNICATIONS

RETAIL

INSTRUMENTATION

AEROSPACE & DEFENSE



POGO PINS

SPRING-LOADED SMT CONTACTS

Pogo Pins are designed to provide a durable and lightweight surface-to-surface connection capable of supporting a high number of mating cycles over product lifetime.

Originally developed for clamshell mobile phones, **Pogo Pin** spring-loaded contacts consist of a plunger (or head), barrel (or body), and a fully encapsulated fine spring, to provide the spring force required to maintain a positive contact.

The low mating force of Harwin's **Pogo Pins** enables rapid and effortless interconnection. The contacts can mate with any conductive surface and will tolerate significant lateral mating misalignment.

FEATURES

- Durable single connection contacts, absorbs significant misalignment
- High number of mating cycles for frequent use and longer life
- Supplied in tape & reel for high volume surface mount assembly

Click here for more →

PRODUCT DATA

POGOPINS			
Current per contact:	1A or 2A	**Free / working height:**	2.4mm to 8.2mm free height / 1.85mm to 7.2mm working height
Contact resistance:	50mΩ max	**Spring force:**	0.39N to 1.32N at working height
Durability:	10,000 mating cycles	**Operating temperature:**	-40°C to +85°C

APPLICATIONS

WEARABLE DEVICES

MEDICAL

HOME ENTERTAINMENT

POS TRACKING

MOBILE ELECTRONICS

SPRING CONTACTS

EZi RANGE

SINGLE PIECE SPRING CONTACTS

SPRING CONTACTS

SINGLE-PIECE SMT CONTACTS FOR SHIELDING, GROUNDING AND ANTENNAS

Also referred to as antenna contacts, grounding contacts or shield fingers, Harwin's single-piece SMT **spring contacts** maintain a positive force against a mating surface and support smaller and lighter PCB connections.

Easy to mate with generous tolerance to misalignment, these interconnects suit a wide variety of applications and markets, including antenna contacts in wearable and mobile applications, RFI screening, LED lamp connections, RFID tags, vision systems, PCB grounding and board-to-board contact.

A choice of widths and spring contact forces ensure optimized solutions across a wide variety of designs.

FEATURES

- Simple and effective method for connecting PCBs
- Compact and lightweight for wearables and hand-held devices
- Surface mount, with pick/place zones, supplied tape and reeled for volume automation

Click here for more →

PRODUCT DATA

SPRING CONTACTS			
Current per contact:	Up to 14A	**Spring force:**	0.39N to 2.00N at working height
Durability:	Up to 10,000 mating cycles	**Operating temperature:**	-20°C to +70°C min -55°C to +125°C max
Free height:	1.23mm to 10.00mm	**Spring contact style:**	C-shape / Extended Antenna / Positive Stop /Anti-Hook / Multi-Directional
Working height:	0.63mm to 9.50mm		

APPLICATIONS

INDUSTRIAL

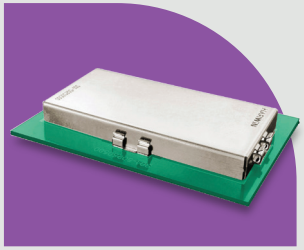
COMMUNICATIONS

RETAIL

INSTRUMENTATION

CONSUMER

EZi RANGE



SHIELDING

BOARD LEVEL RFI/EMC SHIELDING

Traditional board-level **shielding** requires hand soldering after other components and devices have been assembled and reflow soldered on the PCB. Harwin's Clip-and-Can system speeds up assembly and prevents hot spots and damage to vulnerable devices by providing board-level shielding without the need for hand soldering.

Featuring replaceable shield cans and SMT retention clips and supplied on tape-and-reel, the system allows for soldering of the clips at the same time as the other devices on the PCB. Cans are then hand-assembled in a very fast secondary operation in which they are simply pushed into place, eliminating the need for additional soldering.

FEATURES

- No secondary soldering operations, fast and simple to assemble
- Re-usable shield cans easy to remove for rework and maintenance
- SMT retaining clips supplied tape and reeled for volume automation

Click here for more →

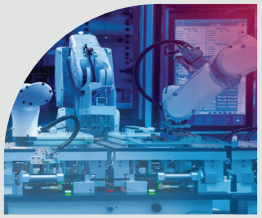
PRODUCT DATA

SHIELDING			
Shield can material:	Nickel Silver	**Shield can thickness:**	0.15mm, 0.20mm or 0.30mm
Shield can area:	10mm x 10mm min 50mm x 25mm max	**SMT clip height:**	0.80mm to 5.45mm
Shield can height:	2.5mm to 5mm	**SMT clip thickness:**	For 0.13mm to 1.00mm thick cans

APPLICATIONS

INDUSTRIAL

WIRELESS MODULES



FACTORY AUTOMATION

IOT MODULES

AVIONICS AND SPACE

HARWiN

CONNECT TECHNOLOGY
WITH CONFIDENCE

HRi RANGE

BBi RANGE

EZi RANGE

FOR FURTHER INFORMATION PLEASE CONTACT:
SUPPORT@HARWIN.COM

WWW.HARWIN.COM