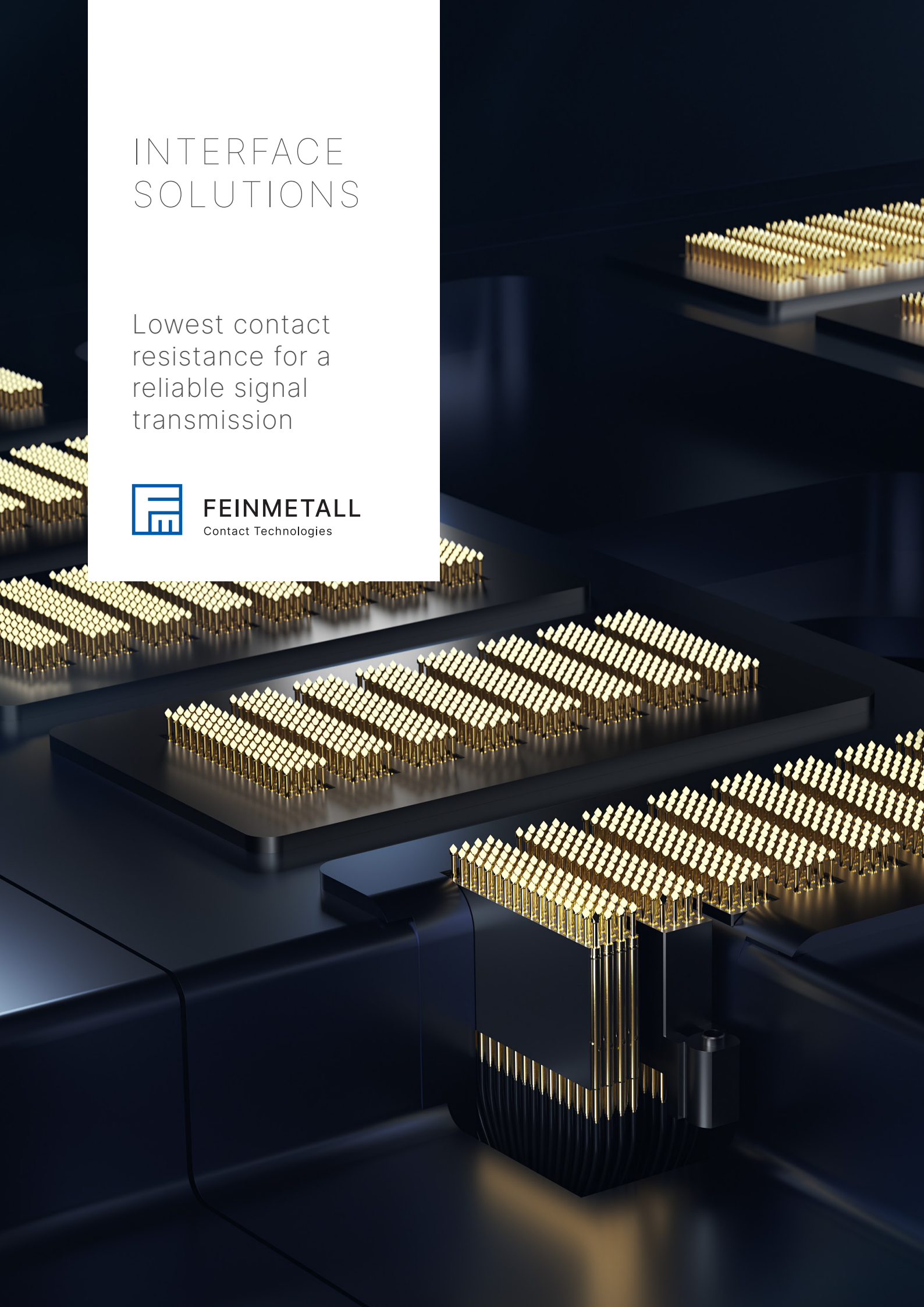


INTERFACE SOLUTIONS

Lowest contact
resistance for a
reliable signal
transmission



FEINMETALL
Contact Technologies



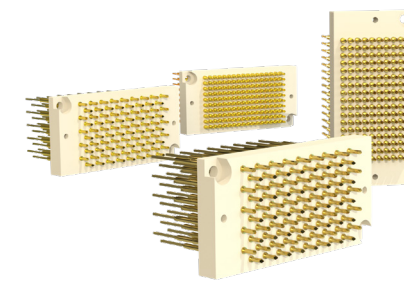
INTERFACE BLOCKS

INTERFACE BLOCKS

Interface solutions in general

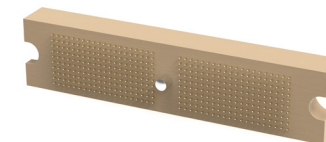
Spring-loaded interface solutions are the proven choice in a variety of applications, from chargers for smartwatches and smartphones to electrical connections in household appliances, in medical technology or even in the semiconductor industry, in automated test systems and much more. One more key advantage is reliability, as these interface solutions reduce the risk of interruptions or malfunctions. They also provide reliable contact stability,

even in demanding environments or applications. Maintaining a low resistance ensures efficient power transmission and data transfer, improving overall performance and durability. Their versatility allows them to find applications in various industries, offering a wide range of solutions. Find them across diverse industries, such as automation, consumer electronics, medical technology, ICT/FCT Testing Industry, Semiconductor, and more.



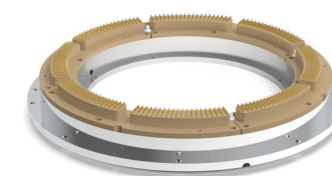
Pylon blocks

FEINMETALL interface blocks (pylon blocks) are mainly used as internal interfaces. The use of contact probes ensures a good signal transmission with low contact resistances. Interface blocks are used for the reliable transmission of signals between test instrument and test system / test fixture in internal, external and customer-specific interfaces. Various designs of signal, high current, high frequency, pneumatic and special blocks are available for a wide range of applications.



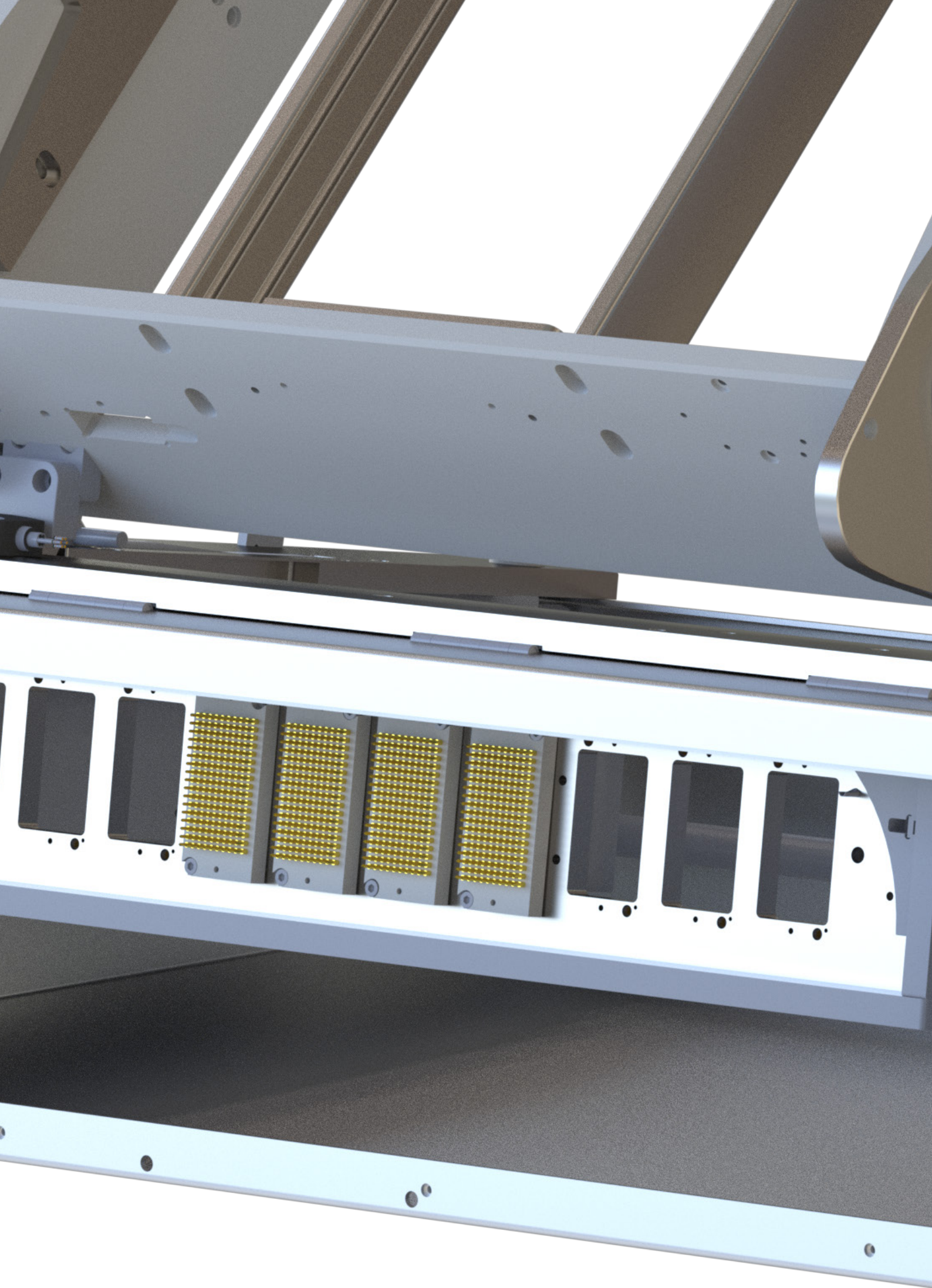
Interposer

An interposer is an electrical interface routing between one socket or connection to another. The purpose of an interposer is to spread a connection to a wider pitch or to reroute a connection to a different connection.



Pogo Ring

The adaptation of circularly arranged test pads is realized by using an interface ring with built-in contact probes. Depending on the electrical and mechanical requirements, suitable interface contact probes can be mounted.



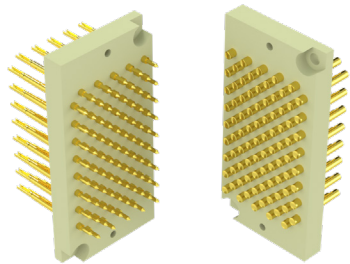
INTERFACE BLOCKS

Interface blocks (pylon blocks)

FEINMETALL interface blocks (pylon blocks) are mainly used as internal interfaces. Signal transmission occurs between two interface blocks mounted opposite each other. In each case, one interface block is loaded with spring-loaded test probes while the other has rigid contact terminals. The use of contact probes ensures a good signal transmission with low contact resistances. All interface blocks have uniform standardized external dimensions.

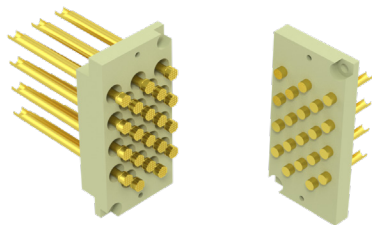
They all have the following features:

- Compact, robust design
- High contact quality
- Consistently low contact resistances
- Quick and simple installation
- High life time



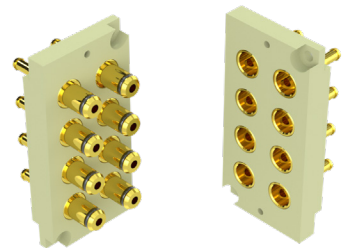
Signal blocks

Signal blocks have a high number of contacts for connection between the test points and the test system. FEINMETALL offers variants with up to 170 contacts. Different variants with wire-wrap or solder connection are available.



Power blocks

High current blocks are interface blocks for higher currents than the normally flowing measuring current. The contacts installed in the existing versions can transmit more than 20 A continuous current.



Pneumatic blocks

Pneumatic interface blocks can be used in a test fixture where a pneumatic connection is required.

INTERFACE PROBES

Interface probes in general

Interface probes, used as connectors in a wide range of applications, serve as a central link for transmitting signals and data. Their purpose is to establish reliable electrical connections when interfacing with other components or PCB circuits. These versatile components find application in diverse industries such as electronics, telecommunications, automotive, and medical technology. Moreover, they play a crucial role in the semiconductor industry, providing standardized solutions for establishing signal connections between test fixtures and test systems.

The interface between the test fixture and the test system is usually implemented realized by interface probes, which are specially standardized for each test system.

FEINMETALL offers interface probes for all common test systems like Spea, Agilent, Teradyne, ATG, Digitaltest, Luther & Mälzer, Factron etc... .

Interface Probes for defined Testsystems

- ATG Test Systems
- Genrad 227x/228x
- Luther & Maelzer LP1800
- Digitaltest MTS300
- Agilent (HP3070/i3070/i5000)
- Spea (Easytest/Unitest)
- Acculogic Scorpion Tester
- Schlumberger (Factron 300/700)
- Teradyne (Spectrum 885xx)
- ICs on PCBs (Test Jet)



INTERFACE
PROBES

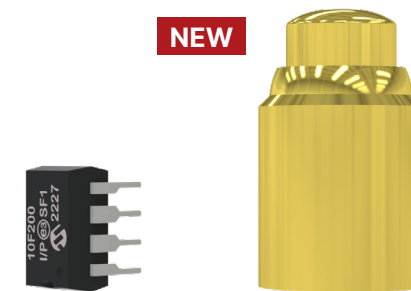
POGO CONNECTORS

Pogo Connectors

Pogo Connectors are compact and direct solderable contact probes. Their application range is extremely versatile and reaches far beyond pure test applications. Wherever detachable electrical connections are required, they can be a smart solution. Typical applica-

tions are charging accumulator cells or cordless devices, contacts for signal transmission between pluggable parts or switch contacts. These probes are also frequently used in the medical industry or in general products e.g. in the furniture and lighting industry.

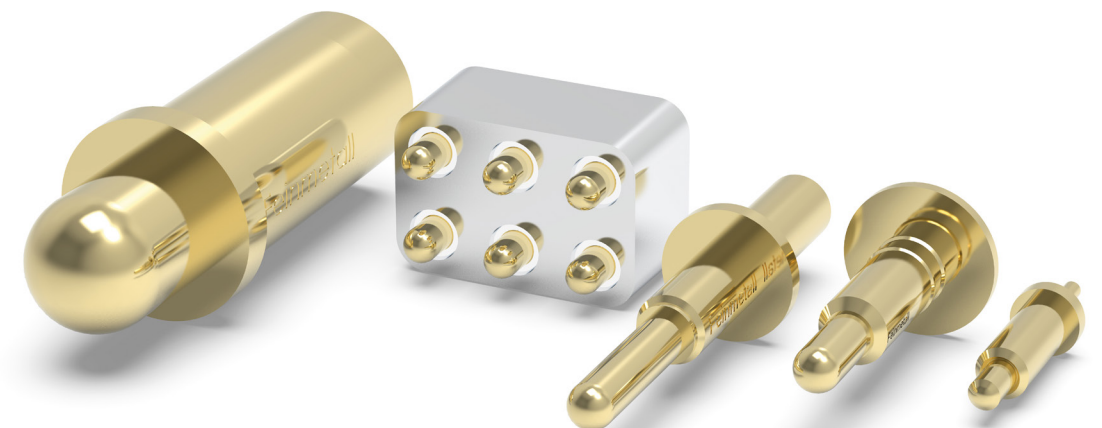
SMALLEST POGO IN THE WORLD!



- Smallest Pogo Connector with a diameter of 0.6mm and a total length of 1.0mm
- Limited space applications
- Non Test applications
- Perfect for high frequency applications with a performance up to 80 GHz

Advantages of battery contacts

- Compact design, short travel for limited mounting space
- Long mechanical lifetime
- High contact reliability and good transmission of high currents
- Constant pressure, ensuring a stable connection even in environments with vibrations or shocks

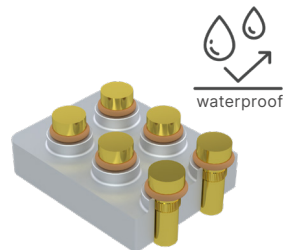


POGO CONNECTORS

Waterproof

Waterproofing is crucial because it protects the electrical connection from environmental influences. Moisture, water or dust can affect the performance of connections and, in the worst case, lead to costly failures.

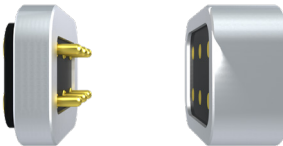
- **Performance:** Waterproof pogo connectors ensure a constant electrical connection.
- **Reliability:** They are extremely reliable and stable, even under difficult conditions.
- **Durability:** They can maintain their performance even in demanding environments.



Magnetic

Magnetic pogo connectors are characterized by their magnetic attraction. This attraction fulfills several important functions at once:

- **Fast connection:** The magnets automatically pull the contacts together, ensuring a fast and precise connection.
- **Robust connection:** They ensure a strong and stable connection that is maintained even under shock and vibration.
- **Self-centering:** This increases reliability and contact security.



Ball point

The ballpoint contact probes in pogo connectors with ballpoint technology provide remarkable precision and reliability:

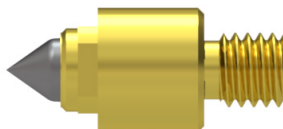
- **Exact alignment:** They fit precisely and ensure perfect alignment which is minimizing the risk of faulty contacts and malfunctions.
- **Durability:** They are extremely durable and can handle a large number of mating cycles without losing performance.
- **High current carrying capacity:** This makes them ideal for applications that require a strong and reliable power supply.



Screwed versions

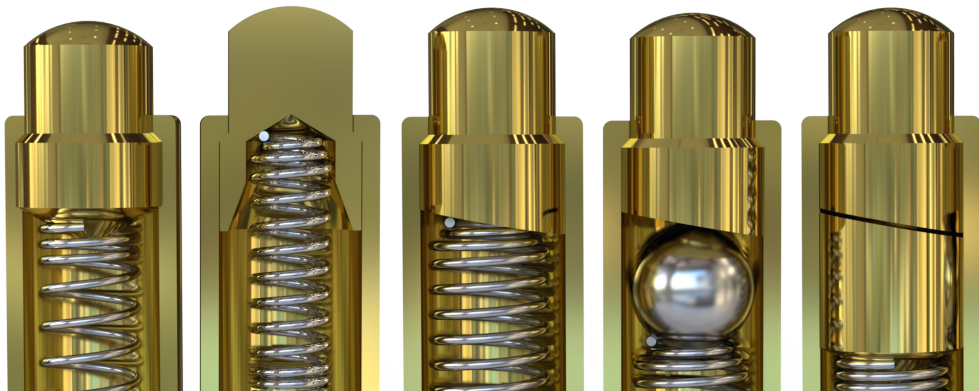
The screwed versions of pogo connectors offer several advantages:

- **Precise connection:** The thread allows precise alignment and adjustment of the connection, which is crucial in applications with tight tolerances and high demands on accuracy.
- **Stability and hold:** the thread ensures a tight and secure fit of the connection, which can also withstand vibrations and shocks. This is critical in environments where reliability is a top priority.
- **Maintenance-free:** Threaded pogo connectors are maintenance-free and provide long-lasting performance without the need for regular readjustment or maintenance.



POGO CONNECTORS

Plunger designs



	Basic plunger	Drill hole plunger	Bias design	Bias Ball design	Split plunger design
Contact safety	+	+	++	+++	++++
Continuous current	+	+	++	+++	++++
Mechanical life	+++	+++	++	++	+
Manufacturing costs	++++	++	++	+	+
Spring force	+++	++	+++	+	+
Travel	++++	++++	+++	++	+

Bias ball design:

The bias ball design can provide improved electrical performance, especially in applications with higher currents or demanding environments. The ball provides a more reliable and stable electrical connection. By using a ball in the bias design, pogo connectors can be better protected against vibration and shock, which increases the reliability of the connection. The bias ball design can help minimize contact wear and extend the life of the pogo connector.

Split plunger design:

The split plunger design is often used when precise alignment and stable contact are required. It allows better adaptation to different tilt angles or surface adjustments and minimizes probe wear or degradation. The split plunger design is especially useful in applications that require high data transfer rates, sensitive measurements or accurate positioning.

Drill hole

The drill hole in the plunger allows better adaptation to different insertion and tolerance conditions due to the longer spring travel. Increased spring force can be achieved by using a longer spring. A higher spring force can provide a stronger electrical connection and improve contact stability. The hollow plunger allows better flexibility and adaptability to different surfaces or application environments. It can better compensate for vibration, shock and unevenness, increasing the reliability of the contact.

Specific requirements

It is important to consider the specific requirements of the application. This includes i.a. current, data transfer rates, environmental factors and mechanical adaptability. Certain plunger designs may be more suitable than others, the comparison on several factors may vary from case to case. Furthermore, cost, space requirements and electrical performance should be considered.



FEINMETALL

Contact Technologies



PASSION
FOR FINEST
TECHNOLOGY.

> FEINMETALL.COM

CONTACT

E-MOBILITY & BATTERY CONTACTING
battery@feinmetall.com

ELECTRONIC TESTING
electronic@feinmetall.com

FINE PITCH TESTING
finepitch@feinmetall.com

INTERFACE SOLUTIONS
interface@feinmetall.com

SEMICONDUCTOR TESTING PRODUCTS
semiconductor@feinmetall.com

WIRE HARNESS TESTING
wireharness@feinmetall.com