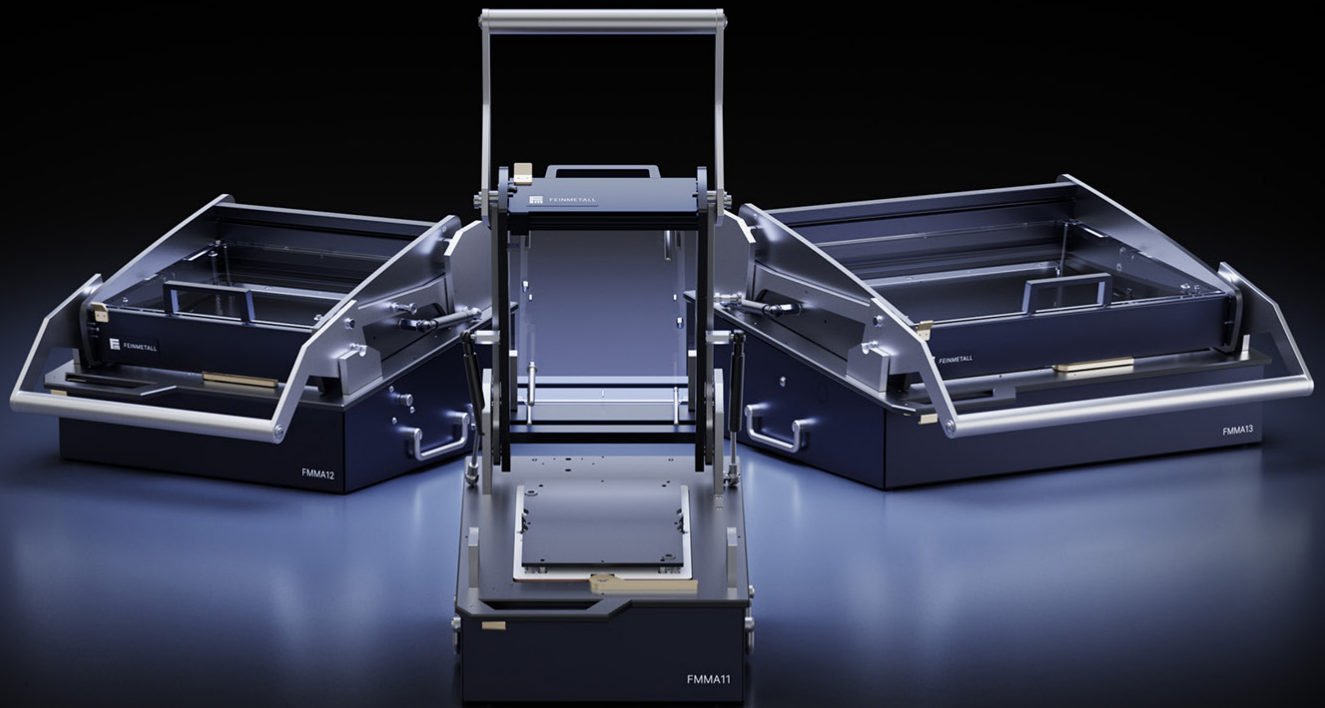




FEINMETALL

Contact Technologies



FIXTURE SERIES

Closing The Gap - Probes. Interfaces. Fixtures.



CHECK IT
OUT NOW.



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FMMA & FMWK

Definition of terms

- MA = Mechanical fixture (**M**echanischer **A**dapter)
- WK = Exchangeable cassette (**W**echsel **K**assette)

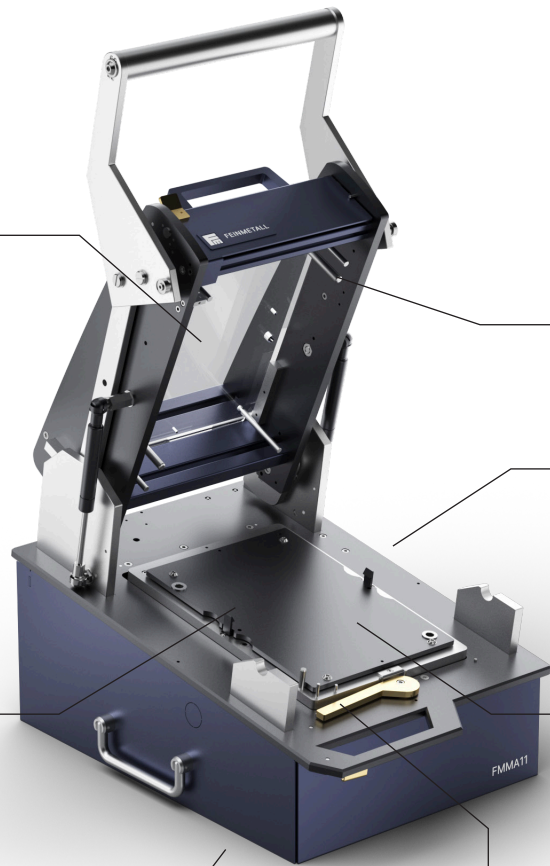
Advantages at a glance

Economical
Highest quality and cost-effectiveness

Floating push-down plate
Tool-free and quick replacement for maintenance and product changes

Board carrier plate
The easily releasable locking mechanism allows for effortless removal without tools

Lightweight
Perfect combination of lightweight design and robustness and performance



Linear Stroke
20 mm linear stroke as standard

ESD-Safety
Standard ESD configuration and protective measures

Exchangeable cassette
Robust interchangeable cassette, protecting the receptacles from damage. Secure storage thanks to innovative design

Cassette Change
Quick and easy cassette change and removal thanks to the top-loader function combined with a lever lock. A forced-centered interface via two contact points ensures reliable signal transmission

OUR BENEFITS

Economical

The interchangeable cassettes, compatible with standard market products, guarantee a very good price-performance ratio.

Board carrier plate

The board carrier plate can be easily removed without tools using two locking mechanisms. This allows easy access to the contact probes and receptacles – ideal for maintenance.

Floating push-down plate

The floating push-down plate can be changed quickly and without tools for simple servicing and product changes. Unlike other products, the hold-down plate does not fall down uncontrollably, even after accidental release. It is held at an angle in the hood and can only be removed with a controlled forward movement.

Exchangeable cassette

The exchangeable cassette is completely enclosed below the pin carrier plate to protect the receptacles and wiring from damage even with frequent changes and to ensure easy and safe storage.

Cross-compatibility

The FEINMETALL exchangeable cassettes are compatible with other, market standard manual adapters, thus giving you more supplier options for maintenance and/or new projects.

Easy cassette replacement

Easily exchangeable cassette thanks to the top-loading function. After unlocking the cassette, it can be easily removed from the top, eliminating the need to open the housing for cassette changes. The interfaces of the interchangeable system are centered via bolts, preventing damage to the interface pins when inserting the cassette. The simple and time-saving cassette change, combined with the tool-free and quick-change push-down plate, significantly reduces setup times and guarantees even faster continuation of work on the DUT, for maximum efficiency throughout the entire testing process. The interface, which can optionally be equipped with pylon blocks, is characterized by its durability and maintenance-free operation. Furthermore, the dimensions conforming to market standards of the flexibly configurable interface blocks contribute to a customized solution.

Linear Stroke

FM adapters have a linear stroke of 20mm to ensure a smooth and reliable contacting of the DUT.

OUR BENEFITS

Lightweight

The FM adapters and exchangeable cassettes combine light weight with performance: With a weight advantage of around 15% to 20% compared to other models on the market, they offer optimized handling. At the same time, the series impresses with its durability. Endurance tests with over 1 million strokes under full load demonstrate the robust design and long-term reliability.

90 degree opening angle (optional)

An extended 90-degree opening angle allows comfortable access for both employees and robots – ideal for easy loading and unloading of the assembly. This ensures seamless integration into automated processes and optimally supports its use in automated/robot-based operations.

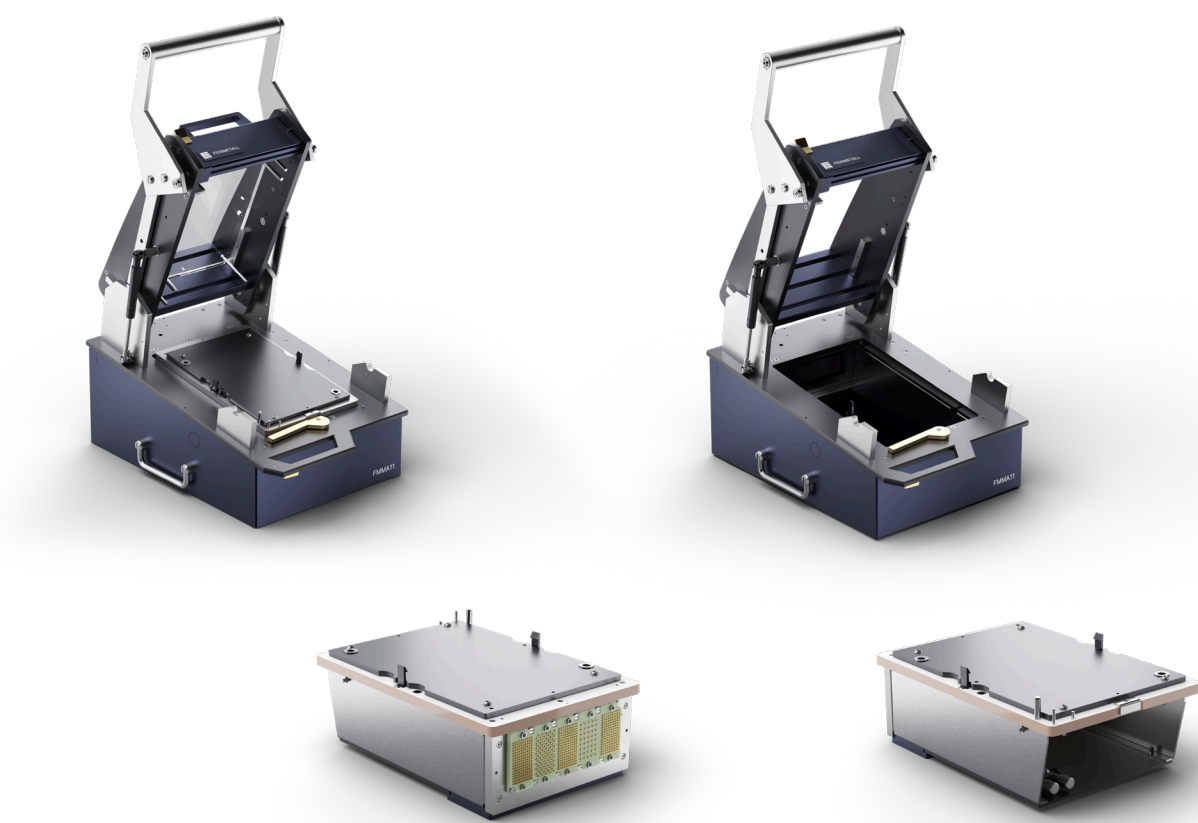
Further advantages

- Housing can be locked when opened, finger pinch protection as standard included
- Quick-release fasteners on the Board carrier plate for tool-free maintenance
- Integrated transport lock prevents accidental opening of the housing
- Spring-assisted opening mechanism for the housing – easy opening/closing of the fixture base housing
- Interface for up to 10 pylon blocks

MODULAR SYSTEM

Robust and modular design in different sizes

The mechanical fixtures of the FMMA Series are suitable for ICT and FCT test applications. The FMWK exchangeable cassette provides excellent cost efficiency. The interface is implemented using interface blocks, each with up to 170 poles.



Order code	Product name	Description
1177349	FMMA11	Chassis size 11
1177352	FMWK11	Exchangeable cassette size 11
1177350	FMMA12	Chassis size 12
1177353	FMWK12	Exchangeable cassette size 12
1177351	FMMA13	Chassis size 13
1177354	FMWK13	Exchangeable cassette size 13



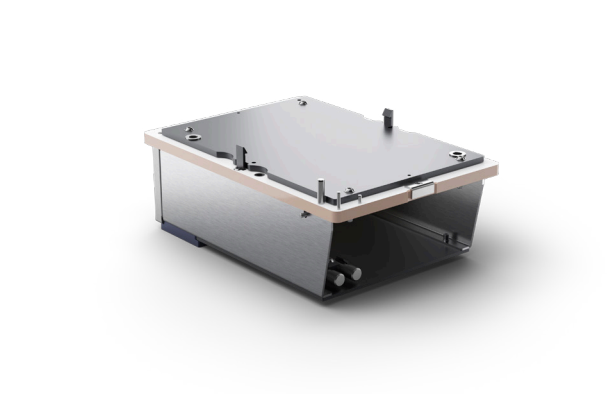
FMMA11

Mechanical fixture

General Information	
Product category	Interchange system
Adapter type	Mechanical fixtures
Series	FMMA
Model	FMMA11
Contact generation	Manually
Housing type	Standard chassis
Interface signals (max.)	850
Interface blocks required	Yes
Internal interface blocks (max.)	5
Test system	Customizable
Contact direction	Double-sided contacting possible
Contact force (max.)	600 N
Linear stroke	20 mm
Weight	13 kg
Voltage	25 VAC / 500 Hz; 60 VDC
ESD-compliant	Yes
RoHS-compliant	Yes
Suitable For	

Mechanical exchangeable cassette	FMWK11
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Technical Specifications	
Length of the hold-down pin	57.4 mm
Mounting height contact probe (on top)	KP 9
Mounting height contact probe (on bottom)	KP 9
Mounting height contact probe (2-stage, bottom)	KP 14.5
Clear height above the circuit board	57 mm
Force of Gas Springs	300 N (150/ 150 N)
Opening angle	80°
Standard model	Yes
Standard usable area (WxD)	145x240 mm
ESD version	Yes
High-frequency version	No
Rigid needle version	No
2-stage version	Yes, with the AOC-E module
Usable area, 2-stage (WxD)	145x240 mm
Additional contact on top (ZSK)	Yes - with an appropriate add-on option
External dimensions open (WxDxH)	340x590x720 mm
External dimensions closed (WxDxH)	340x590x320 mm



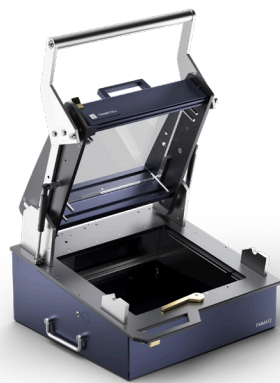
FMWK11

Exchangeable cassette

General Information	
Product category	Interchange system
Product type	Exchangeable cassette
Series	FMWK
Model	FMWK11
Version	ESD, with interface
Factory settings	Unassembled
Suitable for tandem adapters	Yes
Interface signals (max.)	850
Interface blocks required	Yes
Internal interface blocks (max.)	5
Internal interface	Available
2-stage contacting	Yes - with an appropriate add-on option
Double-sided contact	Yes - with an appropriate add-on option
Weight	4 kg
Voltage	25 VAC / 500 Hz; 60 VDC
RoHS-compliant	Yes
Suitable For	

Mechanical interchange system	FMMA11
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Technical Specifications	
Length of the hold-down pin	57.4 mm
Mounting height contact probe (on top)	KP 9
Mounting height contact probe (on bottom)	KP 9
Mounting height contact probe (2-stage, bottom)	KP 14.5
Clear height above the circuit board	57 mm
Standard usable area (WxD)	145x240 mm
External dimensions closed (WxDxH)	210x307x230 mm



FMMA12

Mechanical fixture

General Information

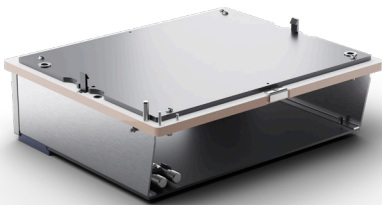
Product category	Interchange system
Adapter type	Mechanical fixtures
Series	FMMA
Model	FMMA12
Contact generation	Manually
Housing type	Standard chassis
Interface signals (max.)	1190
Interface blocks required	Yes
Internal interface blocks (max.)	7
Test system	Customizable
Contact direction	One-sided (bottom)
Contact force (max.)	600 N
Linear stroke	20 mm
Weight	14 kg
Voltage	25 VAC / 500 Hz; 60 VDC
ESD-compliant	Yes
RoHS-compliant	Yes

Suitable For

Mechanical exchangeable cassette	FMWK12
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Technical Specifications

Length of the hold-down pin	57.4 mm
Mounting height contact probe (on top)	KP 9
Mounting height contact probe (on bottom)	KP 9
Mounting height contact probe (2-stage, bottom)	KP 14.5
Clear height above the circuit board	57 mm
Force of Gas Springs	300 N (150/ 150 N)
Opening angle	80°
Standard model	Yes
Standard usable area (WxD)	285x240 mm
ESD version	Yes
High-frequency version	No
Rigid needle version	No
2-stage version	Yes, with the AOC-E module
Usable area, 2-stage (WxD)	285x240 mm
Additional contact on top (ZSK)	Yes - with an appropriate add-on option
External dimensions open (WxDxH)	480x590x720 mm
External dimensions closed (WxDxH)	480x590x320 mm



FMWK12

Exchangeable cassette

General Information

Product category	Interchange system
Product type	Exchangeable cassette
Series	FMWK
Model	FMWK12
Version	ESD, with interface
Factory settings	Unassembled
Suitable for tandem adapters	Yes
Interface signals (max.)	1190
Interface blocks required	Yes
Internal interface blocks (max.)	7
Internal interface	Available
2-stage contacting	Yes - with an appropriate add-on option
Double-sided contact	Yes - with an appropriate add-on option
Weight	5.7 kg
Voltage	25 VAC / 500 Hz; 60 VDC
RoHS-compliant	Yes

Suitable For

Mechanical interchange system	FMMA12
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Technical Specifications

Length of the hold-down pin	57.4 mm
Mounting height contact probe (on top)	KP 9
Mounting height contact probe (on bottom)	KP 9
Mounting height contact probe (2-stage, bottom)	KP 14.5
Clear height above the circuit board	57 mm
Standard usable area (WxD)	285x240 mm
External dimensions closed (WxDxH)	350x307x230 mm



FMMA13

Mechanical fixture

General Information	
Product category	Interchange system
Adapter type	Mechanical fixtures
Series	FMMA
Model	FMMA13
Contact generation	Manually
Housing type	Standard chassis
Interface signals (max.)	1700
Interface blocks required	Yes
Internal interface blocks (max.)	10
Test system	Customizable
Contact direction	One-sided (bottom)
Contact force (max.)	600 N
Linear stroke	20 mm
Weight	15.5 kg
Voltage	25 VAC / 500 Hz; 60 VDC
ESD-compliant	Yes
RoHS-compliant	Yes
Suitable For	
Mechanical exchangeable cassette	FMWK13

Technical Specifications	
Length of the hold-down pin	57.4 mm
Mounting height contact probe (on top)	KP 9
Mounting height contact probe (on bottom)	KP 9
Mounting height contact probe (2-stage, bottom)	KP 14.5
Clear height above the circuit board	57 mm
Force of Gas Springs	300 N (150/ 150 N)
Opening angle	80°
Standard model	Yes
Standard usable area (WxD)	435x310 mm
ESD version	Yes
High-frequency version	No
Rigid needle version	No
2-stage version	Yes, with the AOC-E module
Usable area, 2-stage (WxD)	435x310 mm
Additional contact on top (ZSK)	Yes - with an appropriate add-on option
External dimensions open (WxDxH)	635x640x720 mm
External dimensions closed (WxDxH)	635x640x320 mm



FMWK13

Exchangeable cassette

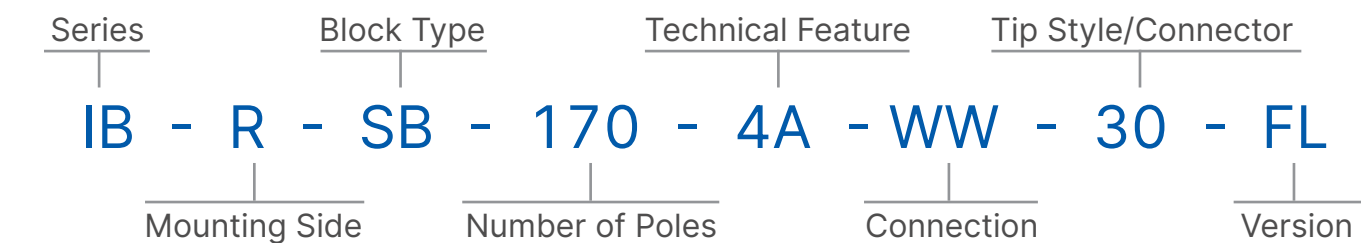
General Information	
Product category	Interchange system
Product type	Exchangeable cassette
Series	FMWK
Model	FMWK13
Version	ESD, with interface
Factory settings	Unassembled
Suitable for tandem adapters	Yes
Interface signals (max.)	1700
Interface blocks required	Yes
Internal interface blocks (max.)	10
Internal interface	Available
2-stage contacting	Yes - with an appropriate add-on option
Double-sided contact	Yes - with an appropriate add-on option
Weight	6.7 kg
Voltage	25 VAC / 500 Hz; 60 VDC
RoHS-compliant	Yes
Suitable For	
Mechanical interchange system	FMMA13

Technical Specifications	
Length of the hold-down pin	57.4 mm
Mounting height contact probe (on top)	KP 9
Mounting height contact probe (on bottom)	KP 9
Mounting height contact probe (2-stage, bottom)	KP 14.5
Clear height above the circuit board	57 mm
Standard usable area (WxD)	435x310 mm
External dimensions closed (WxDxH)	506x377x230 mm

NUMBER CODE SYSTEM

Explanation of our product names for Interface blocks

FEINMETALL Interface Blocks (Pylon blocks) are used as internal interface. The integrated spring contact probes guarantee good signal transmission with low transfer resistances. This is only a selection of available signal blocks; further variants are available on request.



Mounting Side

- F = Fixture side
- R = Receiver side
- B = Both sides possible

Block Type

- SB = Signal block
- HF = High frequency block
- HS = High current block
- PB = Pneumatic block
- BB = Blind block
- MB = Mixed assembly

Number of Poles

- for example:
- 040 = 40 poles
 - 085 = 85 poles
 - 170 = 170 poles

May differ from the maximum possible number of contacts.

Technical Feature

- for example:
- 4A = 4 A max. current
 - 6G = 6 GHz frequency

Connection

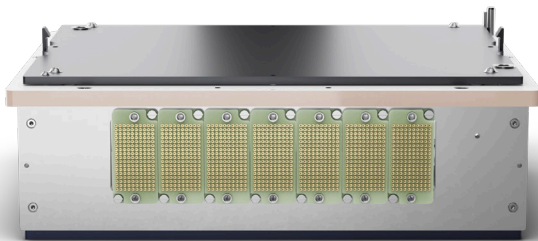
- CR = Crimp
- DR = Wire
- LA = Solder
- WW = Wire wrap
- WR = Round pin

Tip Style/Connector

- 05 = Concave stepped
- 15 = Triangular 45° stepped
- 17 = Flat stepped
- 30 = Triangular 45°

Version

- FL = Floating
- FX = Fixed



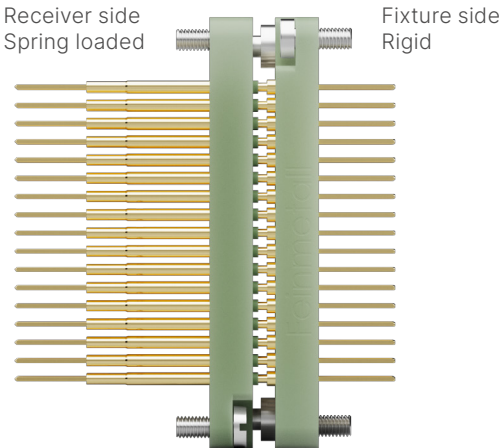
INTERFACE BLOCKS

Reliable signal transmission with an optimized Interface Block portfolio

Our newly redesigned interface blocks ensure reliable signal transmission between fixture and test systems. Designed with a self-centering range of +/- 0.3 mm, the setup ensures very good contact reliability and consistently low contact resistance. Uniformly aligned wire-wrap posts offer a clean and standardized interface for easy wiring.

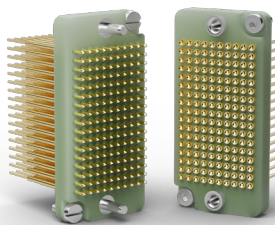
Benefits

- Mechanically compatible with market standards
- Floating design, to compensate for misalignments of +/- 0.3 mm
- Uniformly aligned wire-wrap posts for simplified wiring
- Competitive pricing and short lead times, because the interface blocks will be part of FM Choice

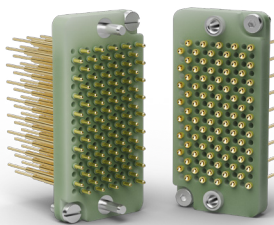


Optimized versions

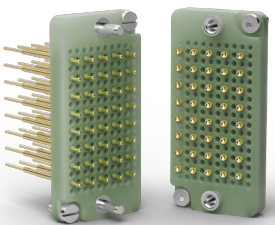
Our advanced Signal blocks are available in different versions to ensure suitability for a wide range of applications in the market. Please have a look at our website to see the full portfolio including our Interface Solutions for RF, High Current and Pneumatic blocks.



Signal block 170 pole



Signal block 85 pole



Signal block 40 pole

Floating versions

Order code	Product name	Type	Poles	Description
1170307	IB-F-SB-040-4A-WW-05-FL	Floating	40	Fixture
1170306	IB-F-SB-085-4A-WW-05-FL		85	Fixture
1163958	IB-F-SB-170-4A-WW-05-FL		170	Fixture
1170327	IB-R-SB-040-4A-WW-03-FL		40	Receiver/Test System
1170326	IB-R-SB-085-4A-WW-03-FL		85	Receiver/Test System
1163960	IB-R-SB-170-4A-WW-03-FL		170	Receiver/Test System

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