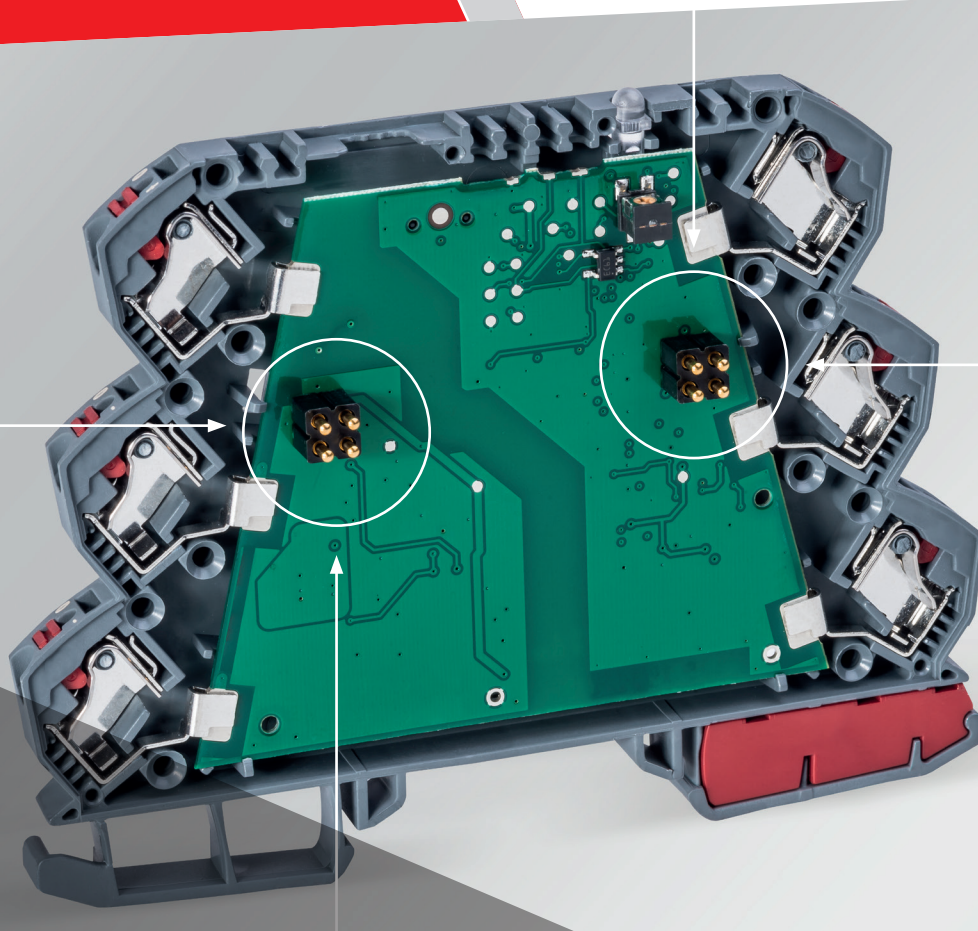




INTERFACE PIN BLOCKS

Test probes as components. The right solutions – every time.

TEST PROBES AS PCB COMPONENTS

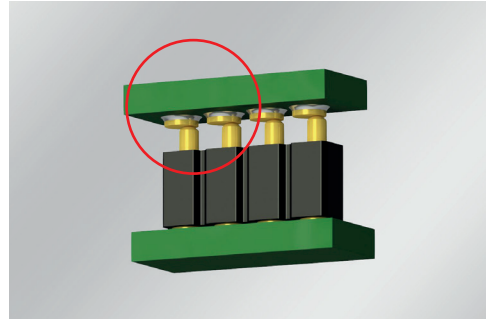
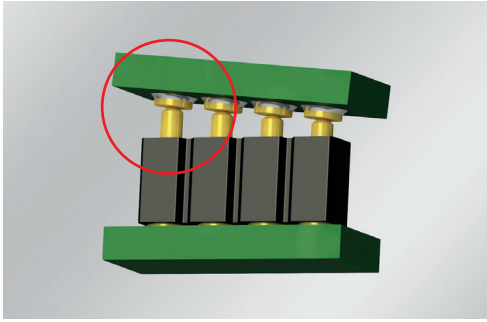
PTR HARTMANN's spring-loaded battery probes provide an extremely reliable and precise connection solution which is ideal for use in a series of demanding application requirements in the electronic connections sector.

There are many possible applications, starting with board-to-board contacting, directly on the PCB, to hand-held devices as a charging contact, and up to battery chargers for high-quality laptops, smartphones, e-bikes/pedelecs, and a large number of additional applications - battery probes and also spring-loaded pogo pin-type contacts are used in all situations to transmit battery charging currents, but also to transmit signals.

CUSTOMER BENEFITS

- » Compact design
- » Vibration-proof /
electromechanical connection
- » Great positioning tolerance
- » Compensate installation tolerances
- » Long mechanical operating life
- » High permanent charging currents
(up to 10 A)
- » Blind mating
- » Low insertion and withdrawal forces



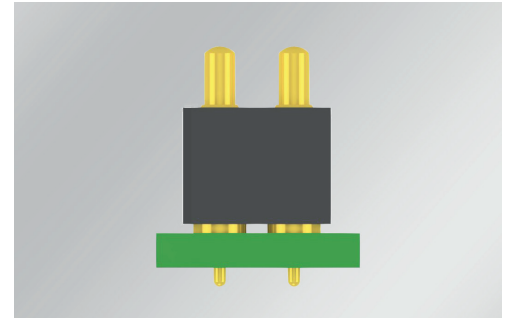
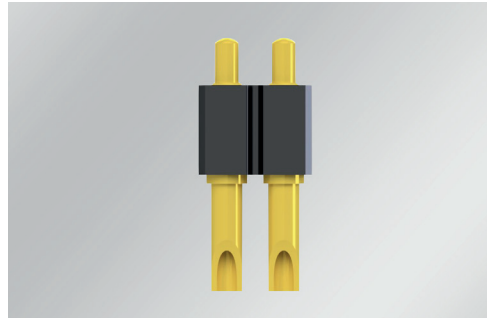


Tolerance compensation

The contacts in the plastic block are extremely suitable for compensating height differences, and provide a great tolerance range for the contacting of the counter-contact.

THR and soldering versions

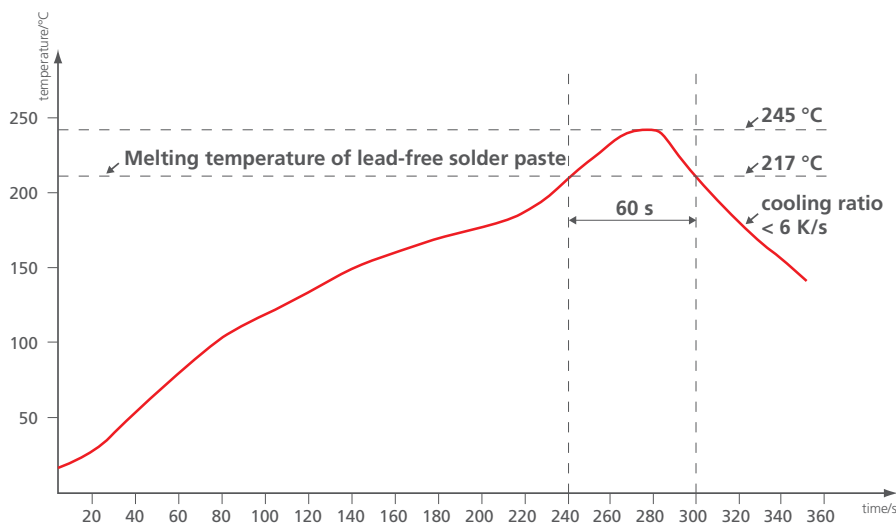
In addition to the SMD variants, PTR HARTMANN also offers THR and soldering versions. These provide plenty of scope for individual designs and applications.



PRODUCT FEATURES ARE CUSTOMERS' BENEFITS

In contrast to a standard PCB multi-connector, when used as a connecting element the test probe has the advantage of being more flexible in use. For example, the test probes provide greater positioning tolerance, and compensate installation tolerances between the components to be connected.

REFLOW SOLDERING PROFILE



In reflow soldering, soldering paste is applied under pressure to the circuit board. As the applied solder has adhesive properties, the circuit board can be assembled without any further fixation, and can then pass through the furnace. After a pre-heating phase, the solder is heated to fusion temperature during the soldering phase. At this temperature, the solder becomes liquid, and this creates a bond between the component and circuit board. The result is a fault-free solder connection after the solder has cooled.

CONNECTION OPTIONS

- » SMD (Surface Mount Design) for mechanical assembly design
- » THR (Through Hole Reflow) for manual / mechanical assembly
- » Crimp connection – for manual wiring
- » Sleeve connection
- » Soldering connection
- » Vertical and horizontal

APPLICATIONS

- » Current / data recording / transmission to hand-held devices and their docking stations
- » Medical equipment
- » Military equipment
- » Mobile communications systems with a long operating life
- » Automotive
- » PCB technology



QUALITY AND FLEXIBILITY

We develop intelligent, tailor-made solutions for every customer. First of all, choosing the ideal test probe depends on the relevant application.

For this reason, and in addition to a wide range of standard items, PTR HARTMANN GmbH offers customer-specific solutions – in many cases, existing standard contacts can be adapted to meet such requirements.

We use our skills and experience of connection technology to develop the ideal contacts for your application, and we offer complete solutions including plastic carriers, tape-and-reel and pick & place pads.

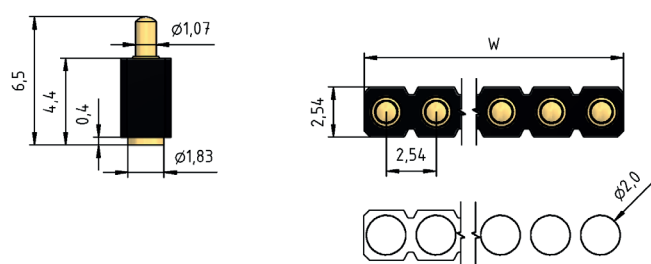
Individuality in compact design and construction

Our customer-specific interface pin blocks provide the user with an individual design for a test probe-based interface.

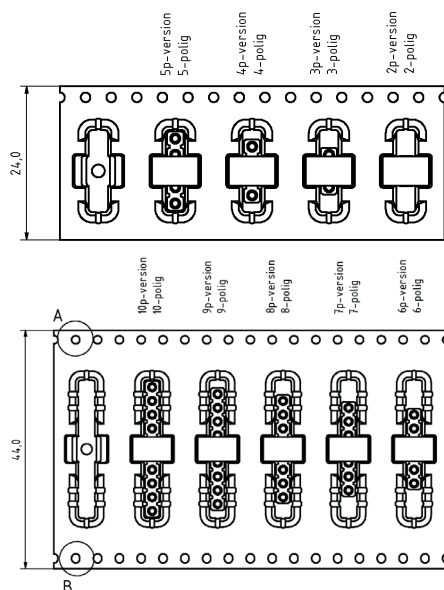
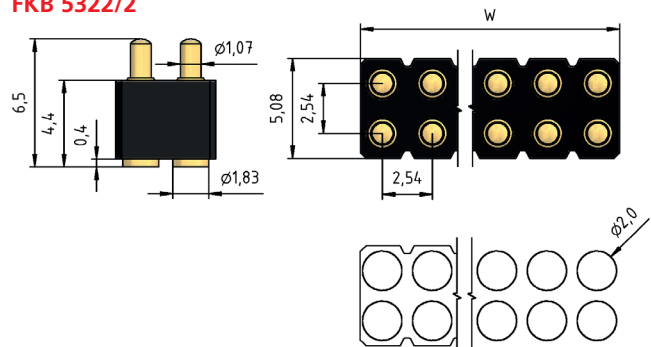
FKB 5322 - SMD

Interface Pin Block
100 mil / 2.54 mm

FKB 5322/1



FKB 5322/2



How to order

FKB5322 /1 - 2 - 65 - R24
1 2 3 4 5

1 Series 2 Number of Rows 3 Number of Poles 4 Installation height
5 Tape on reel

BENEFIT

Short, compact size
Board-to-board contacting
Suitable for reflow soldering - SMD / Automated Assembly (Tape on reel)
2 to 20 poles / 1 and 2 rows available

MECHANICAL DATA

Center	2.54 mm / 100 mil
Full Travel	1.40 mm
Working Travel	0.70 mm
Pre-Loaded Spring Force	0.25 N
Spring Force at Working Travel	0.85 N

ELECTRICAL DATA

Max. Current Rating	3.5 A
Typical Continuity Resistance	≤ 20 mOhm

MATERIALS

Barrel	Brass, gold-plated
Spring	Spring Steel, gold-plated
Plunger	Brass, gold-plated
Test Probe Block	PA

TAPE ON REEL (EN 60286-3)

Tape on reel width	44 mm / 24 mm
Spooling diameter	15"
Number of components	800
Pitch	12 mm

OPERATING LIFE

Cycles	50,000
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RATINGS

		
Rated Current	3.5 A	2.0 A
Rated Voltage - DC	150 V	150 V
Rated Voltage - AC	100 V	100 V
Flammability Class	UL 94 V-0	UL 94 V-0

ORDER DATA

Poles	Width (mm)	Article Designation	Article Number	PU
FKB 5322/1				
2	5.08	FKB 5322/1-02-65-R24	65322F30265	PCS800
3	7.62	FKB 5322/1-03-65-R24	65322F30365	PCS800
4	10.16	FKB 5322/1-04-65-R24	65322F30465	PCS800
5	12.70	FKB 5322/1-05-65-R24	65322F30565	PCS800
6	15.24	FKB 5322/1-06-65-R44	65322F30665	PCS800
7	17.78	FKB 5322/1-07-65-R44	65322F30765	PCS800
8	20.32	FKB 5322/1-08-65-R44	65322F30865	PCS800
9	22.86	FKB 5322/1-09-65-R44	65322F30965	PCS800
10	25.40	FKB 5322/1-10-65-R44	65322F31065	PCS800
FKB 5322/2				
4	5.08	FKB 5322/2-04-65-R24	65322F40465	PCS800
6	7.62	FKB 5322/2-06-65-R24	65322F40665	PCS800
8	10.16	FKB 5322/2-08-65-R24	65322F40865	PCS800
10	12.70	FKB 5322/2-10-65-R24	65322F41065	PCS800
12	15.24	FKB 5322/2-12-65-R44	65322F41265	PCS800
14	17.78	FKB 5322/2-14-65-R44	65322F41465	PCS800
16	20.32	FKB 5322/2-16-65-R44	65322F41665	PCS800
18	22.86	FKB 5322/2-18-65-R44	65322F41865	PCS800
20	25.40	FKB 5322/2-20-65-R44	65322F42065	PCS800

Interface Pin Block 100 mil / 2.54 mm

PKB 5322 - SMD

BENEFIT

- Short, compact size
- Board-to-board contacting
- Suitable for reflow soldering - SMD / Automated Assembly (Tape on reel)
- 2 to 20 poles / 1 and 2 rows available

MECHANICAL DATA

Center 2.54 mm / 100 mil

ELECTRICAL DATA

Max. Current Rating 3.5 A
Typical Continuity Resistance ≤ 20 mOhm

MATERIALS

PAD contact Brass, gold-plated
Test Probe Block PA

TAPE ON REEL (EN 60286-3)

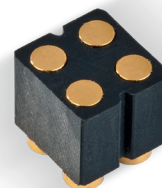
Tape on reel width 44 mm / 24 mm
Spooling diameter 15"
Number of components 800
Pitch 12 mm

RATINGS

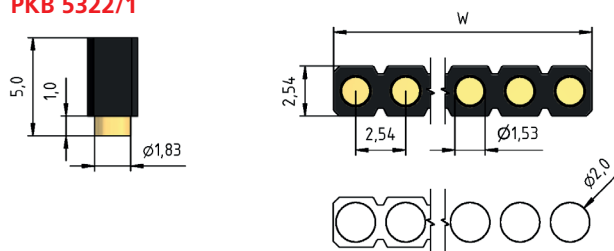
	UL	UL
Rated Current	3.5 A	2.0 A
Rated Voltage - DC	150 V	150 V
Rated Voltage - AC	100 V	100 V
Flammability Class	UL 94 V-0	UL 94 V-0

ORDER DATA

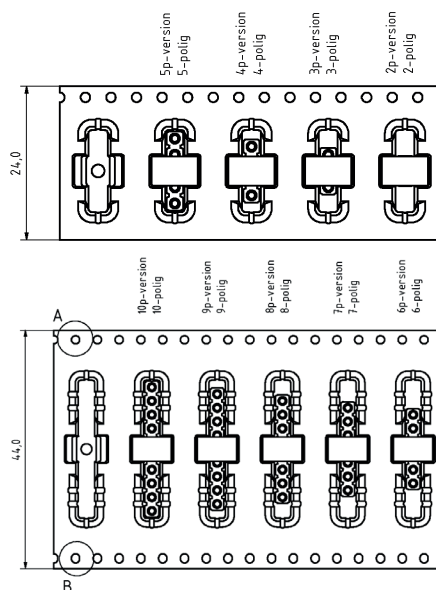
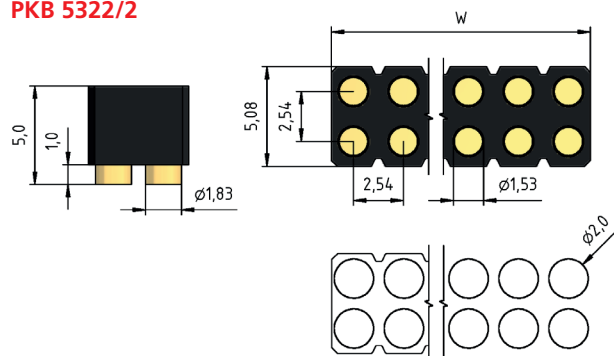
Poles	Width (mm)	Article Designation	Article Number	PU
PKB 5322/1				
2	5.08	PKB 5322/1-02-50-R24	65322P30250	PCS800
3	7.62	PKB 5322/1-03-50-R24	65322P30350	PCS800
4	10.16	PKB 5322/1-04-50-R24	65322P30450	PCS800
5	12.70	PKB 5322/1-05-50-R24	65322P30550	PCS800
6	15.24	PKB 5322/1-06-50-R44	65322P30650	PCS800
7	17.78	PKB 5322/1-07-50-R44	65322P30750	PCS800
8	20.32	PKB 5322/1-08-50-R44	65322P30850	PCS800
9	22.86	PKB 5322/1-09-50-R44	65322P30950	PCS800
10	25.40	PKB 5322/1-10-50-R44	65322P31050	PCS800
PKB 5322/2				
4	5.08	PKB5322/2-04-50-R24	65322P40450	PCS800
6	7.62	PKB5322/2-06-50-R24	65322P40650	PCS800
8	10.16	PKB5322/2-08-50-R24	65322P40850	PCS800
10	12.70	PKB5322/2-10-50-R24	65322P41050	PCS800
12	15.24	PKB5322/2-12-50-R44	65322P41250	PCS800
14	17.78	PKB5322/2-14-50-R44	65322P41450	PCS800
16	20.32	PKB5322/2-16-50-R44	65322P41650	PCS800
18	22.86	PKB5322/2-18-50-R44	65322P41850	PCS800
20	25.40	PKB5322/2-20-50-R44	65322P42050	PCS800



PKB 5322/1



PKB 5322/2

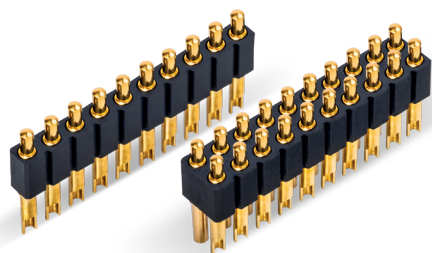


How to order

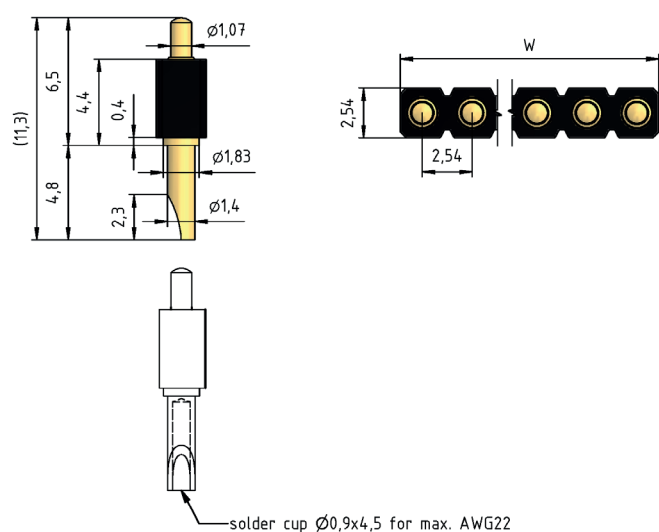
PKB5322 / 1 - 2 - 50 - R24
1 2 3 4 5

1 Series 2 Number of Rows 3 Number of Poles 4 Installation height
5 Tape on reel

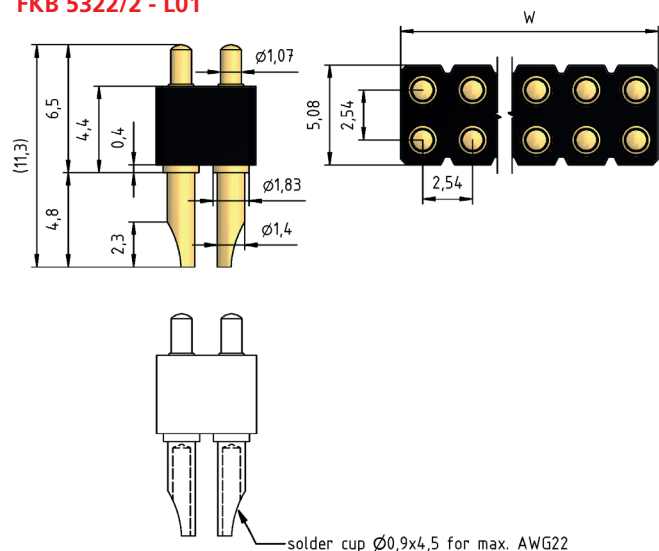
FKB 5322 - L01

Interface Pin Block
100 mil / 2.54 mm

FKB 5322/1 - L01



FKB 5322/2 - L01



BENEFIT

Short, compact size
Individual wiring
2 to 20 poles / 1 and 2 rows available

MECHANICAL DATA

Center	2.54 mm / 100 mil
Full Travel	1.40 mm
Working Travel	0.70 mm
Pre-Loaded Spring Force	0.25 N
Spring Force at Working Travel	0.85 N

ELECTRICAL DATA

Max. Current Rating	3.5 A
Typical Continuity Resistance	≤ 20 mOhm

MATERIALS

Barrel	Brass, gold-plated
Spring	Spring Steel, gold-plated
Plunger	Brass, gold-plated
Test Probe Block	PA

OPERATING LIFE

Cycles	50,000
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ORDER DATA

Poles	Width (mm)	Article Designation	Article Number	PU
FKB 5322/1 - L01				
2	5.08	FKB 5322/1-02-65-L01	65322F10265L	PCS100
3	7.62	FKB 5322/1-03-65-L01	65322F10365L	PCS100
4	10.16	FKB 5322/1-04-65-L01	65322F10465L	PCS100
5	12.70	FKB 5322/1-05-65-L01	65322F10565L	PCS100
6	15.24	FKB 5322/1-06-65-L01	65322F10665L	PCS100
7	17.78	FKB 5322/1-07-65-L01	65322F10765L	PCS100
8	20.32	FKB 5322/1-08-65-L01	65322F10865L	PCS100
9	22.86	FKB 5322/1-09-65-L01	65322F10965L	PCS100
10	25.40	FKB 5322/1-10-65-L01	65322F11065L	PCS100
FKB 5322/2 - L01				
4	5.08	FKB 5322/2-04-65-L01	65322F20465L	PCS100
6	7.62	FKB 5322/2-06-65-L01	65322F20665L	PCS100
8	10.16	FKB 5322/2-08-65-L01	65322F20865L	PCS100
10	12.70	FKB 5322/2-10-65-L01	65322F21065L	PCS100
12	15.24	FKB 5322/2-12-65-L01	65322F21265L	PCS100
14	17.78	FKB 5322/2-14-65-L01	65322F21465L	PCS100
16	20.32	FKB 5322/2-16-65-L01	65322F21665L	PCS100
18	22.86	FKB 5322/2-18-65-L01	65322F21865L	PCS100
20	25.40	FKB 5322/2-20-65-L01	65322F22065L	PCS100

How to order

FKB5322 / 1 - 2 - 65 - L01
1 2 3 4 5

1 Series 2 Number of Rows 3 Number of Poles 4 Installation height
5 Versions

Interface Pin Block 100 mil / 2.54 mm

FKB 5322 - T01

BENEFIT

Short, compact size
Board-to-board contacting
Suitable for reflow soldering
2 to 20 poles / 1 and 2 rows available

MECHANICAL DATA

Center	2.54 mm / 100 mil
Full Travel	1.40 mm
Working Travel	0.70 mm
Pre-Loaded Spring Force	0.25 N
Spring Force at Working Travel	0.85 N

ELECTRICAL DATA

Max. Current Rating	3.5 A
Typical Continuity Resistance	≤ 20 mOhm

MATERIALS

Barrel	Brass, gold-plated
Spring	Spring Steel, gold-plated
Plunger	Brass, gold-plated
Test Probe Block	PA

OPERATING LIFE

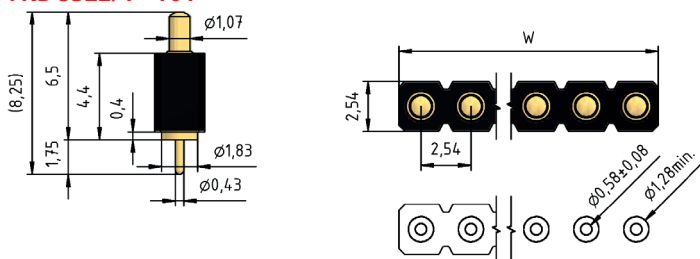
Cycles	50,000
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ORDER DATA

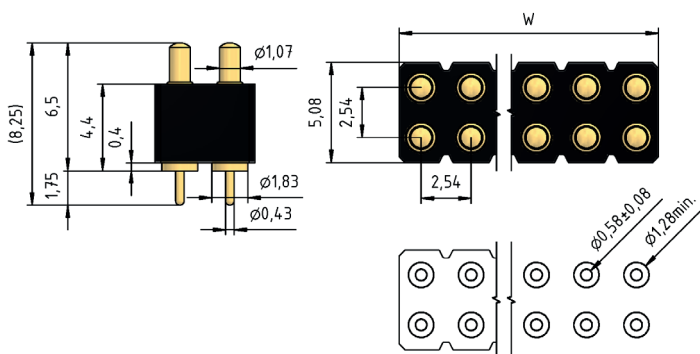
Poles	Width (mm)	Article Designation	Article Number	PU
FKB 5322/1 - T01				
2	5.08	FKB 5322/1-02-65-T01	65322F10265T	PCS100
3	7.62	FKB 5322/1-03-65-T01	65322F10365T	PCS100
4	10.16	FKB 5322/1-04-65-T01	65322F10465T	PCS100
5	12.70	FKB 5322/1-05-65-T01	65322F10565T	PCS100
6	15.24	FKB 5322/1-06-65-T01	65322F10665T	PCS100
7	17.78	FKB 5322/1-07-65-T01	65322F10765T	PCS100
8	20.32	FKB 5322/1-08-65-T01	65322F10865T	PCS100
9	22.86	FKB 5322/1-09-65-T01	65322F10965T	PCS100
10	25.40	FKB 5322/1-10-65-T01	65322F11065T	PCS100
FKB 5322/2 - T01				
4	5.08	FKB 5322/2-04-65-T01	65322F20465T	PCS100
6	7.62	FKB 5322/2-06-65-T01	65322F20665T	PCS100
8	10.16	FKB 5322/2-08-65-T01	65322F20865T	PCS100
10	12.70	FKB 5322/2-10-65-T01	65322F21065T	PCS100
12	15.24	FKB 5322/2-12-65-T01	65322F21265T	PCS100
14	17.78	FKB 5322/2-14-65-T01	65322F21465T	PCS100
16	20.32	FKB 5322/2-16-65-T01	65322F21665T	PCS100
18	22.86	FKB 5322/2-18-65-T01	65322F21865T	PCS100
20	25.40	FKB 5322/2-20-65-T01	65322F22065T	PCS100



FKB 5322/1 - T01



FKB 5322/2 - T01

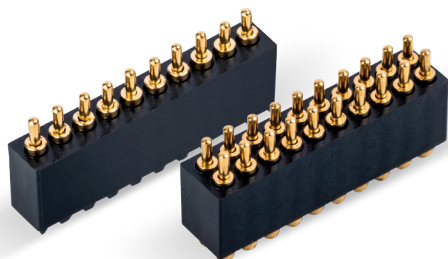


How to order

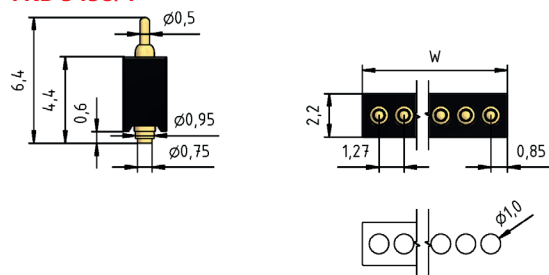
FKB5322 / 1 - 2 - 65 - T01
1 2 3 4 5

1 Series 2 Number of Rows 3 Number of Poles 4 Installation height
5 Versions

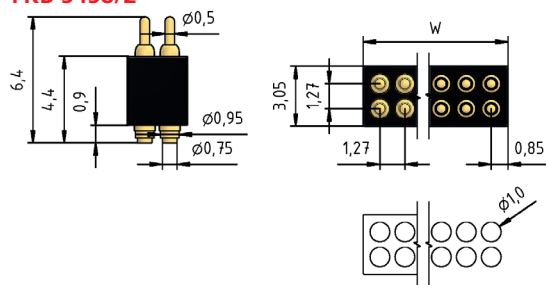
FKB 5458 - SMD

Interface Pin Block
50 mil / 1.27 mm

FKB 5458/1



FKB 5458/2



BENEFIT

Short, compact size
Board-to-board contacting
Suitable for reflow soldering - SMD
2 to 20 poles / 1 and 2 rows available

MECHANICAL DATA

Center	1.27 mm / 50 mil
Full Travel	1.40 mm
Working Travel	0.70 mm
Pre-Loaded Spring Force	0.25 N
Spring Force at Working Travel	0.60 N

ELECTRICAL DATA

Max. Current Rating	2.0 A
Typical Continuity Resistance	≤ 20 mOhm

MATERIALS

Barrel	Brass, gold-plated
Spring	Stainless Steel, gold-plated
Plunger	Brass, gold-plated
Test Probe Block	PA

OPERATING LIFE

Cycles	50,000
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ORDER DATA

Poles	Width (mm)	Article Designation	Article Number	PU
FKB 5458/1				
2	2.54	FKB 5458/1-02-64	65458F10264T	PCS100
3	3.81	FKB 5458/1-03-64	65458F10364T	PCS100
4	5.08	FKB 5458/1-04-64	65458F10464T	PCS100
5	6.35	FKB 5458/1-05-64	65458F10564T	PCS100
6	7.62	FKB 5458/1-06-64	65458F10664T	PCS100
7	8.89	FKB 5458/1-07-64	65458F10764T	PCS100
8	10.16	FKB 5458/1-08-64	65458F10864T	PCS100
9	11.43	FKB 5458/1-09-64	65458F10964T	PCS100
10	12.70	FKB 5458/1-10-64	65458F11064T	PCS100
FKB 5458/2				
4	2.54	FKB 5458/2-04-64	65458F20464T	PCS100
6	3.81	FKB 5458/2-06-64	65458F20664T	PCS100
8	5.08	FKB 5458/2-08-64	65458F20864T	PCS100
10	6.35	FKB 5458/2-10-64	65458F21064T	PCS100
12	7.62	FKB 5458/2-12-64	65458F21264T	PCS100
14	8.89	FKB 5458/2-14-64	65458F21464T	PCS100
16	10.16	FKB 5458/2-16-64	65458F21664T	PCS100
18	11.43	FKB 5458/2-18-64	65458F21864T	PCS100
20	12.70	FKB 5458/2-20-64	65458F22064T	PCS100

How to order

FKB5458 / 1 - 2 - 64
1 2 3 4

1 Series 2 Number of Rows 3 Number of Poles 4 Installation height

Interface Pin Block 100 mil / 2.54 mm

FKB 5457 - SMD

BENEFIT

Horizontal positioning
Board-to-board contacting
Suitable for reflow soldering - SMD
2 to 12 poles available

MECHANICAL DATA

Center	2.54 mm / 100 mil
Full Travel	2.00 mm
Working Travel	1.50 mm
Pre-Loaded Spring Force	0.30 N
Spring Force at Working Travel	1.00 N

ELECTRICAL DATA

Max. Current Rating	3.5 A
Typical Continuity Resistance	≤ 20 mOhm

MATERIALS

Barrel	Brass, gold-plated
Spring	Spring Steel, gold-plated
Plunger	Brass, gold-plated
Test Probe Block	PA

TAPE ON REEL (EN 60286-3)

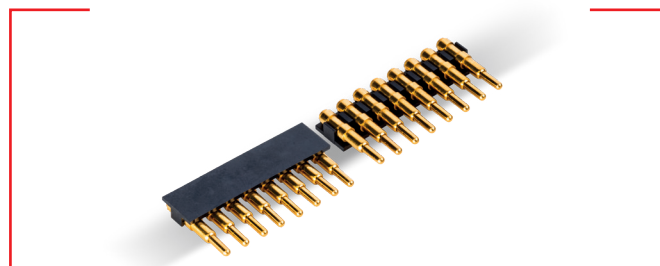
Tape on reel width	44 mm
Spooling diameter	15"
Number of components	1,600
Pitch	16 mm

OPERATING LIFE

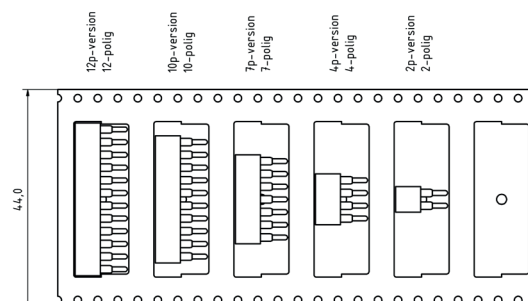
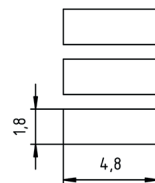
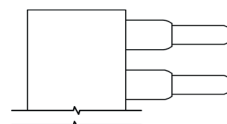
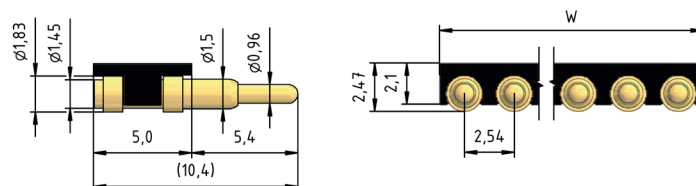
Cycles	50,000
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ORDER DATA

Poles	Width (mm)	Article Designation	Article Number	PU
FKB 5457/1				
2	5.08	FKB 5457/1-02-104-R44	65457F202104	PCS800
3	7.62	FKB 5457/1-03-104-R44	65457F203104	PCS800
4	10.16	FKB 5457/1-04-104-R44	65457F204104	PCS800
5	12.70	FKB 5457/1-05-104-R44	65457F205104	PCS800
6	15.24	FKB 5457/1-06-104-R44	65457F206104	PCS800
7	17.78	FKB 5457/1-07-104-R44	65457F207104	PCS800
8	20.32	FKB 5457/1-08-104-R44	65457F208104	PCS800
9	22.86	FKB 5457/1-09-104-R44	65457F209104	PCS800
10	25.40	FKB 5457/1-10-104-R44	65457F210104	PCS800
11	27.94	FKB 5457/1-11-104-R44	65457F211104	PCS800
12	30.48	FKB 5457/1-12-104-R44	65457F212104	PCS800



FKB 5457/1



How to order

FKB5457 /1 - 2 - 104 - R44
1 2 3 4 5

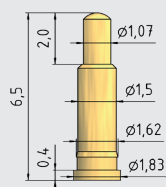
1 Series 2 Number of Rows 3 Number of Poles 4 Installation height
5 Tape on reel

BATTERY TEST PROBES

A selection from the range of PTR products

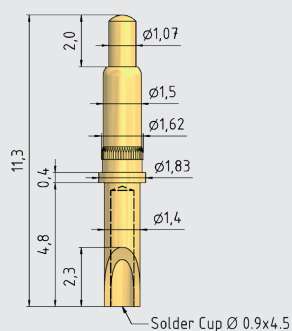
5303 series

Center 2.54 mm



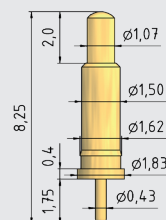
5303/LR01 series

Center 2.54 mm



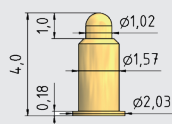
5303/T01 series

Center 2.54 mm



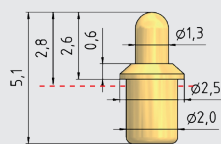
5305 series

Center 2.54 mm



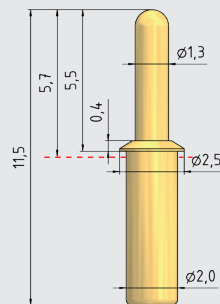
5099 series

Center 3.00 mm



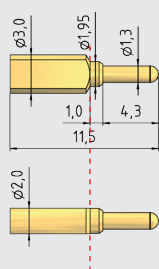
5099.04 series

Center 3.00 mm



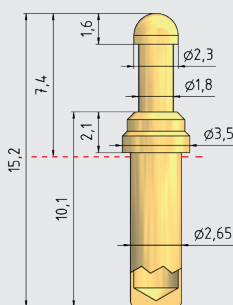
5099.43 series

Center 3.00 mm



5110/S series

Center 4.00 mm







PTR HARTMANN

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The Phoenix Mecano Group is a technological enterprise which operates around the world and is represented on the international growth markets. With its three building technology, mechanical components and ELCOM / EMS divisions, the company is the leader in many markets. Machinery and plant engineering, measurement and control technology, electrical engineering, automotive and rail engineering, energy technology, medical technology, aerospace technology, as well as the home and hospital care sector, are important fields of application.

GLOBAL PRESENCE

With more than 60 locations on every continent, we and our international workforce are close to our customers and guarantee efficient production, resource-friendly logistics and market-driven solutions.

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