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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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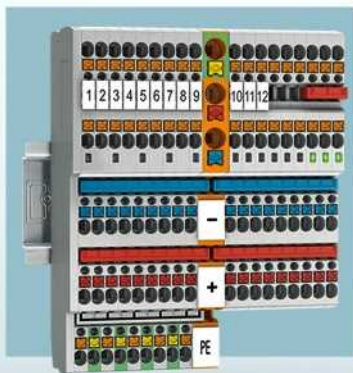
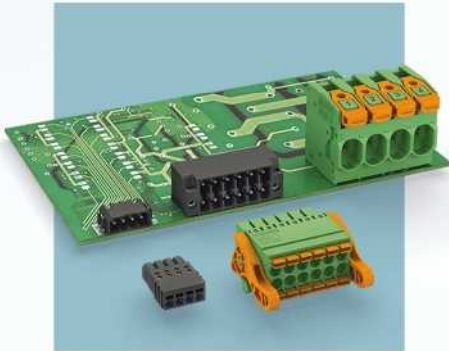
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SUPPLEMENT

Catalog

2014



The Phoenix Contact catalog system



1 PCB connection technology and electronics housing

- PCB terminal blocks and plug connectors
- Electronics housing



2 Connection technology for field devices

- Plug connectors
- Cables and connectors



3 Modular terminal blocks

- Modular terminal blocks



4 Sensor/actuator cabling and industrial plug connectors

- Sensor/actuator cabling
- Cables and connectors
- Plug connectors



5 Marking systems, tools, and mounting material

- Marking and labeling
- Tools
- Installation and mounting material



6 Surge protection and power supply units

- Lightning monitoring system
- Surge protection and interference filters
- Power supply units and UPS
- Protective devices



7 Interface technology and switching devices

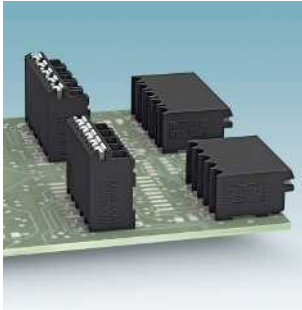
- Electronic switching devices and motor control
- Measurement and control technology • Monitoring and signaling
- Relay modules • System cabling for controllers



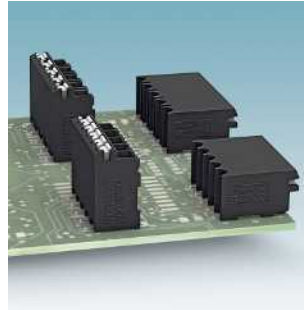
8 Control technology, I/O systems and automation infrastructure

- Ethernet networks • Functional safety • HMIs and industrial PCs • I/O systems
- Industrial lighting and signaling • Industrial communication technology
- Fieldbus components and systems • Wireless data communication
- Process infrastructure • Software • Controllers

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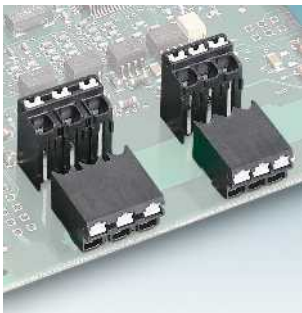
SMD PCB terminal blocks with push-in spring connection up to 1.5 mm², 3.5 and 3.81 mm pitch
SPT-SMD 1,5/ ...-H-... R32 Page 7
SPT-SMD 1,5/ ...-V-... R32 Page 7



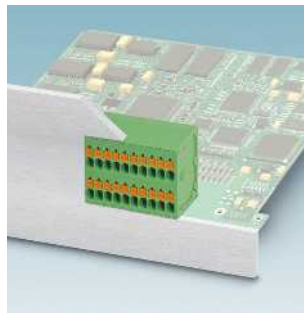
SMD PCB terminal blocks with push-in spring connection up to 1.5 mm², 5.0 and 5.08 mm pitch
SPT-SMD 1,5/ ...-H-5,0 R32 Page 9
SPT-SMD 1,5/ ...-V-5,0 R32 Page 9



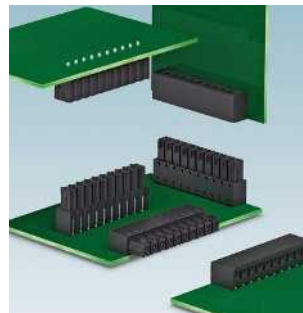
THR PCB terminal blocks with push-in spring connection up to 1.5 mm², 3.5 and 3.81 mm pitch
SPT-THR 1,5/ ...-H-3,5 P26 Page 10
SPT-THR 1,5/...-V-3,5 P26 Page 11



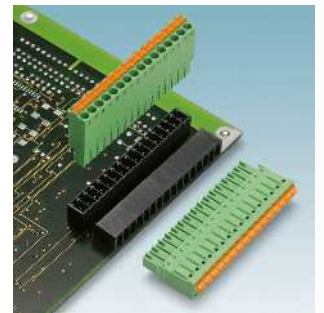
THR PCB terminal blocks with push-in spring connection up to 1.5 mm², 5.0 and 5.08 mm pitch
SPT-THR 1,5/ ...-H-5,0 P26 Page 12
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Double-row PCB terminal block with push-in spring connection up to 1.5 mm², 3.5 mm pitch
SPTD 1,5/ ...-H-3,5 Page 15



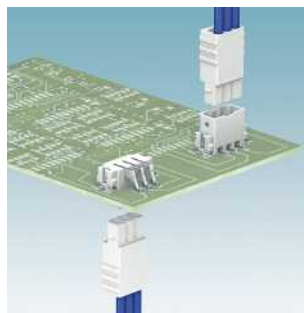
Inverted headers for reflow processes, 3.5 mm pitch
IMC 1,5/ ...-G-3,5 P20 THR Page 16
IMCV 1,5/ ...-G-3,5 P20 THR Page 17



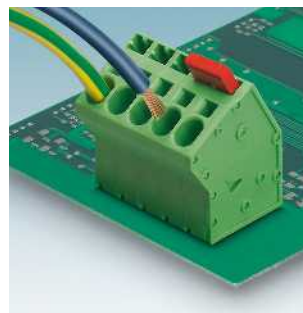
Single-level headers, 13 to 20-pos., for reflow processes, 3.81 mm pitch
MC 1,5/...-G-3,81 P20 THR Page 18
MCV 1,5/...-G-3,81 P20 THR Page 19



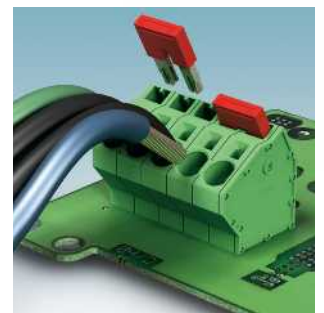
Taped single-level headers, 13 to 20-pos., for reflow processes, 3.81 mm pitch
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MCV 1,5/...-G-3,81 P20 THRR... Page 21



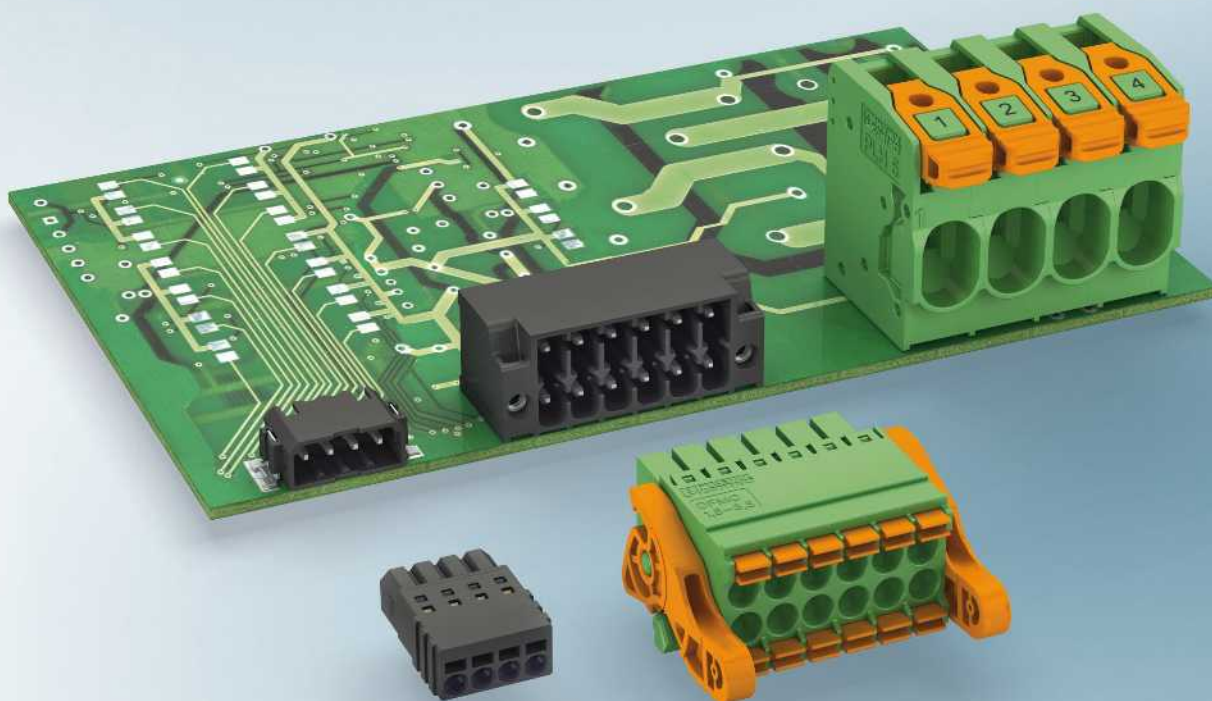
Plugs with push-in spring connection up to 0.75 mm², 2.5 mm pitch
PTSM 0,5/ ...-HV-2,5-SMD WH R32 Page 23
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Angled PCB terminal blocks with push-in spring connection up to 6 mm², 7.5 mm pitch
SPTA 5/ ...-7,5-ZB Page 25



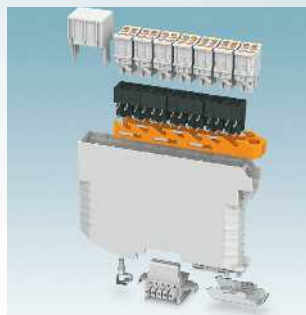
Angled PCB terminal blocks with push-in spring connection up to 6 mm², 10 mm pitch
SPTA 16/ ...-10,0-ZB Page 27



Feed-through terminal blocks with push-in spring connection up to 16 mm² for high-current applications

PWO 16-UW

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ME-IO electronics housing with front connection

**ME-IO 18, 8....
HSC...**

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Page 30



PCO... power connector for ME MAX housing

**PCO-L KMGY
PBR 42A...**

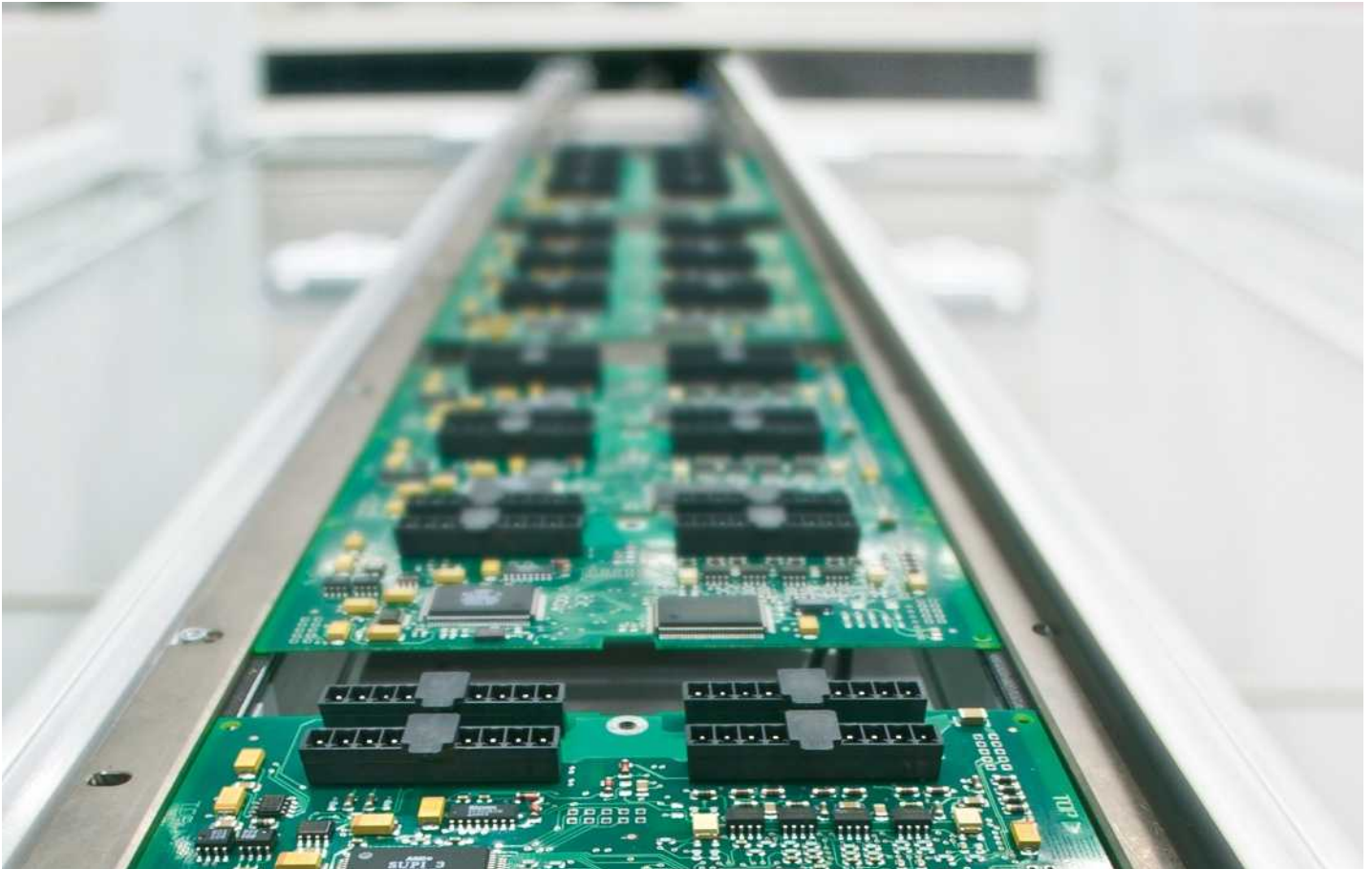
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ME TBUS 4P1S and ME TBUS ADAPTER for ME and ME MAX housing

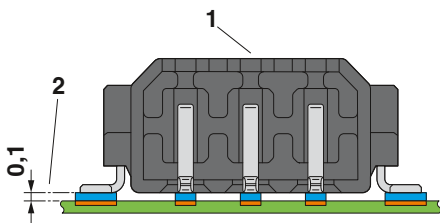
**METBUS 1,5/4P1S KMGY
METBUS ADAPTER KMGY**

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Page 39



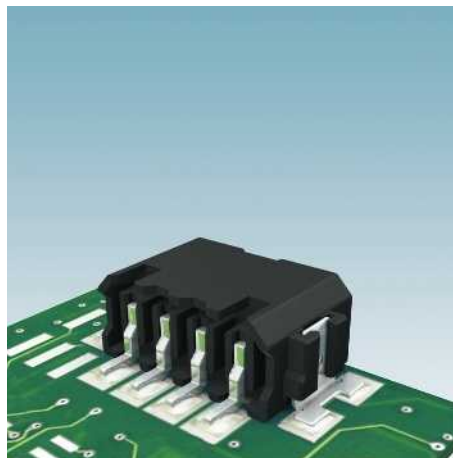
SMD- Surface Mount Device

Generally the term SMD or SMT (surface mount technology) refers to the dominant production method currently used for assemblies in electronics production. In this case solder paste is applied to the contact surfaces of the PCB. The surface contacts of the component are dipped in this paste and soldered by means of the reflow soldering process.



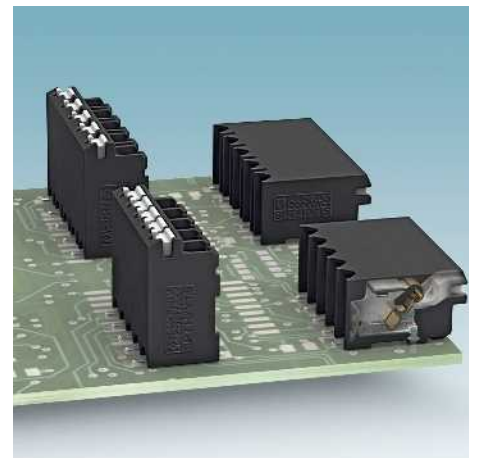
Properties of SMD/THR components in the reflow process

- Resistance to high temperatures
- Suction areas (1) for automatic PCB assembly by means of pick-and-place
- Stability in the case of mechanical loads
- Coplanarity (2) (evenness) of the SMD contacts



PTSM 0,5...SMD

In addition to the SMD contacts, the components have anchor metal on the side. This ensures that the insertion and withdrawal force of the plugs does not overload the contact points.



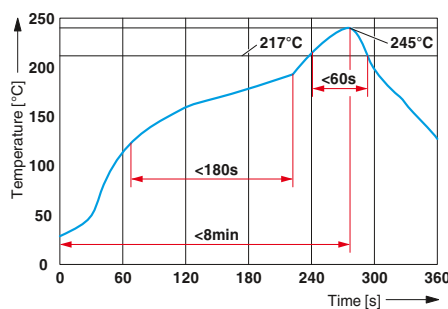
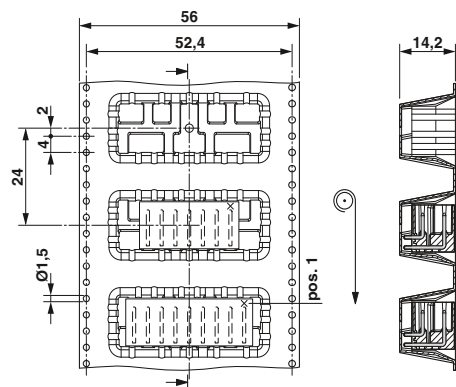
SPT-SMD 1,5...

Additional solder pins on the side position the component on the PCB and prevent it moving during the process. Moreover, they absorb the force when the conductors are connected.



The qualification of the SMD connectors is based on IPC/JEDEC J-STD020 indicating the MSL (Moisture Sensitive Level) and the max. processing temperatures. The SMD/THR components meet MSL 1 or 2 which means that dry bag packaging is not required.

The standard tape width for tape-on-reel packaging supports automatic PCB assembly in pick-and-place applications.



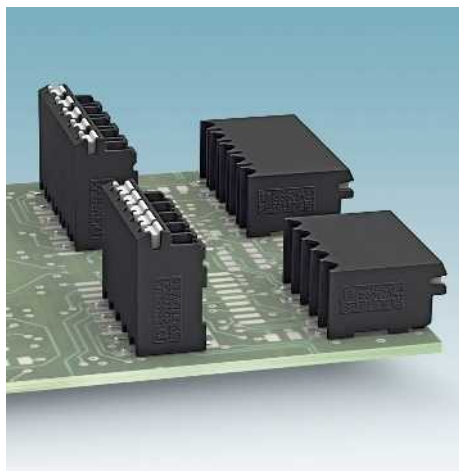
Dimensional drawings of tape reels and suction areas and pads can be found online at phoenixcontact.net/products.

Reflow soldering

The reflow process and the required temperature profiles are described in SMD standards DIN EN 61760-1 or also IEC 60068-2-58. The profiles described are usually used for test purposes, but are also recommended for the application.

PCB terminal blocks with 2.54 to 7.62 mm pitch

SMD PCB terminal blocks with push-in spring connection up to 1.5 mm²








- Push-in direct plug-in technology for solid and stranded conductors
- Suitable for use in SMD processes
- Horizontal and vertical design with a 3.5 mm and 3.81 mm pitch
- High stability due to anchor pins or two soldering pads per position
- Supplied in taped packaging according to IEC 60286-3 for automatic assembly
- Touch connection for voltage testing using a 1 mm Ø test pin

Notes:

Dimensional drawings of tape reels and place pads can be found online at phoenixcontact.net/products.

1) Current carrying capacity curve available on request.

For accessories, see Catalog 1

For all types	Type	Page
	Screwdriver SZS 0,4 x 2,5 Order No. 1205037	
	Marker cards SK 3,5/2,8 or SK 3,81/2,8	796
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Test plug MPS-MT 1-S Order No. 1944372	831

Technical data

Technical data in accordance to IEC / DIN VDE	
Rated current / conductor cross section	[A] / [mm ²]
Rated insulation voltage for pollution degree 2	[V]
Pitch	[mm]
Connection capacity	
Solid / stranded	[mm ²] / [mm ²] / AWG
Stranded with ferrules without plastic sleeve	[mm ²]
Stranded with ferrules with plastic sleeve	[mm ²]
Insulation coordination	
Surge voltage category / pollution degree	
Rated insulation voltage	[V]
Rated surge voltage	[kV]
Approval data (UL/CUL)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
Approval data (CSA)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
General data	
Stripping length	[mm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

SPT-SMD 1,5/...H...R...

13.5 ¹⁾ / 1.5			13.5 ¹⁾ / 1.5		
160			160		
3.5 / 3.81			3.5 / 3.81		
0.2 - 1.5 / 0.2 - 1.5 / 24 - 16			0.2 - 1.5 / 0.2 - 1.5 / 24 - 16		
0.2 - 1.5			0.2 - 1.5		
0.2 - 0.75			0.2 - 0.75		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
160	160	320	160	160	320
2.5	2.5	2.5	2.5	2.5	2.5
B	C	D	B	C	D
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
B	C	D	B	C	D
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
8			8		
LCP / IIIa			LCP / IIIa		
V0			V0		
1.1 / 0.7 x 0.3			1.1 / 0.7 x 0.3		

SPT-SMD 1,5/...V...R...

No. of pos.	Dim. a [mm]
2	3.50
3	7.00
4	10.50
5	14.00
6	17.50
7	21.00
8	24.50
9	28.00
10	31.50
11	35.00
12	38.50
2	3.81
3	7.62
4	11.43
5	15.24
6	19.05
7	22.86
8	26.67
9	30.48
10	34.29
11	38.10
12	41.91

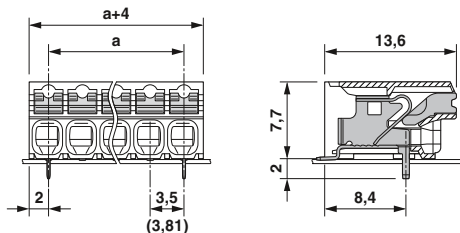


Taped PCB terminal block, connection direction horizontal to the PCB

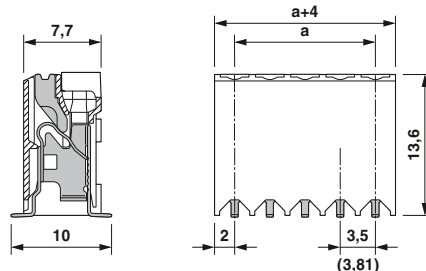


Taped PCB terminal block, connection direction vertical to the PCB

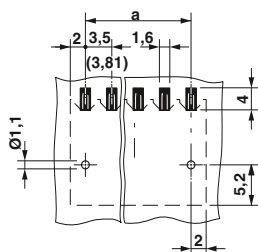
Dimensional drawing



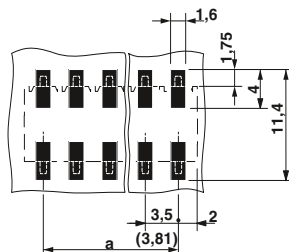
Dimensional drawing



Drilling diagram



Drilling diagram



Ordering data

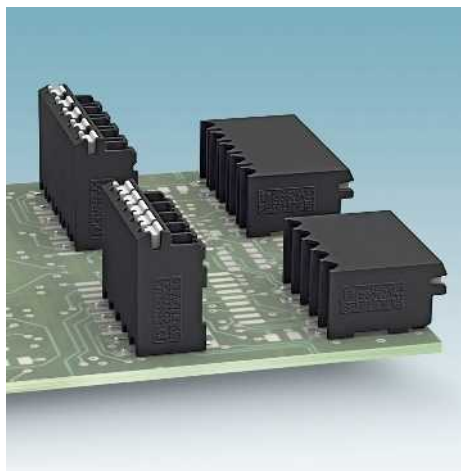
Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
SPT-SMD 1,5/ 2-H-3,5 R24	1824527	300
SPT-SMD 1,5/ 3-H-3,5 R24	1824530	300
SPT-SMD 1,5/ 4-H-3,5 R44	1824543	300
SPT-SMD 1,5/ 5-H-3,5 R44	1824556	300
SPT-SMD 1,5/ 6-H-3,5 R44	1824569	300
SPT-SMD 1,5/ 7-H-3,5 R44	1824572	300
SPT-SMD 1,5/ 8-H-3,5 R72	1824585	300
SPT-SMD 1,5/ 9-H-3,5 R72	1824598	300
SPT-SMD 1,5/10-H-3,5 R72	1824608	300
SPT-SMD 1,5/11-H-3,5 R72	1824611	300
SPT-SMD 1,5/12-H-3,5 R72	1824624	300
3.81 mm pitch, color: black		
SPT-SMD 1,5/ 2-H-3,81 R24	1824637	300
SPT-SMD 1,5/ 3-H-3,81 R24	1824640	300
SPT-SMD 1,5/ 4-H-3,81 R44	1824653	300
SPT-SMD 1,5/ 5-H-3,81 R44	1824666	300
SPT-SMD 1,5/ 6-H-3,81 R44	1824679	300
SPT-SMD 1,5/ 7-H-3,81 R44	1824682	300
SPT-SMD 1,5/ 8-H-3,81 R72	1824695	300
SPT-SMD 1,5/ 9-H-3,81 R72	1824705	300
SPT-SMD 1,5/10-H-3,81 R72	1824718	300
SPT-SMD 1,5/11-H-3,81 R72	1824721	300
SPT-SMD 1,5/12-H-3,81 R72	1824734	300

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
SPT-SMD 1,5/ 2-V-3,5 R24	1824080	200
SPT-SMD 1,5/ 3-V-3,5 R32	1824093	200
SPT-SMD 1,5/ 4-V-3,5 R44	1824103	200
SPT-SMD 1,5/ 5-V-3,5 R44	1824116	200
SPT-SMD 1,5/ 6-V-3,5 R44	1824129	200
SPT-SMD 1,5/ 7-V-3,5 R44	1824132	200
SPT-SMD 1,5/ 8-V-3,5 R72	1824145	200
SPT-SMD 1,5/ 9-V-3,5 R72	1824158	200
SPT-SMD 1,5/10-V-3,5 R72	1824161	200
SPT-SMD 1,5/11-V-3,5 R72	1824174	200
SPT-SMD 1,5/12-V-3,5 R72	1824187	200
3.81 mm pitch, color: black		
SPT-SMD 1,5/ 2-V-3,81 R24	1824190	200
SPT-SMD 1,5/ 3-V-3,81 R32	1824200	200
SPT-SMD 1,5/ 4-V-3,81 R44	1824213	200
SPT-SMD 1,5/ 5-V-3,81 R44	1824226	200
SPT-SMD 1,5/ 6-V-3,81 R44	1824239	200
SPT-SMD 1,5/ 7-V-3,81 R44	1824242	200
SPT-SMD 1,5/ 8-V-3,81 R72	1824255	200
SPT-SMD 1,5/ 9-V-3,81 R72	1824268	200
SPT-SMD 1,5/10-V-3,81 R72	1824271	200
SPT-SMD 1,5/11-V-3,81 R72	1824284	200
SPT-SMD 1,5/12-V-3,81 R72	1824297	200

PCB terminal blocks with 2.54 to 7.62 mm pitch

SMD PCB terminal blocks with push-in spring connection up to 1.5 mm²



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	Marker cards SK 5/3,8 or SK 5,08/3,8	798
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Test plug MPS-MT 1-S Order No. 1944372	831

Technical data

Technical data in accordance to IEC / DIN VDE	
Rated current / conductor cross section	[A] / [mm ²]
Rated insulation voltage for pollution degree 2	[V]
Pitch	[mm]
Connection capacity	
Solid / stranded	[mm ²] / [mm ²] / AWG
Stranded with ferrules without plastic sleeve	[mm ²]
Stranded with ferrules with plastic sleeve	[mm ²]
Insulation coordination	
Surge voltage category / pollution degree	
Rated insulation voltage	[V]
Rated surge voltage	[kV]
Approval data (UL/CUL)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
Approval data (CSA)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
General data	
Stripping length	[mm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

SPT-SMD 1,5/...H..R

13.5 ¹⁾ / 1.5		
320		
5 / 5.08		
0.2 - 1.5 / 0.2 - 1.5 / 24 - 16		
0.2 - 1.5		
0.2 - 0.75		
III / 3	III / 2	II / 2
250	320	500
4	4	4
B	C	D
-	-	-
-	-	-
-	-	-
B	C	D
-	-	-
-	-	-
-	-	-
8		
LCP / IIIa		
V0		
1.1 / 0.7 x 0.3 mm		

SPT-SMD 1,5/...V...R...

13.5 ¹⁾ / 1.5		
320		
5 / 5.08		
0.2 - 1.5 / 0.2 - 1.5 / 24 - 16		
0.2 - 1.5		
0.2 - 0.75		
III / 3	III / 2	II / 2
250	320	500
4	4	4
B	C	D
-	-	-
-	-	-
-	-	-
B	C	D
-	-	-
-	-	-
-	-	-
8		
LCP / IIIa		
V0		
1.1 / 0.7 x 0.3 mm		

No. of pos.	Dim. a [mm]
2	5.00
3	10.00
4	15.00
5	20.00
6	25.00
7	30.00
8	35.00
9	40.00
10	45.00
11	50.00
12	55.00
2	5.08
3	10.16
4	15.24
5	20.32
6	25.40
7	30.48
8	35.56
9	40.64
10	45.72
11	50.80
12	55.88

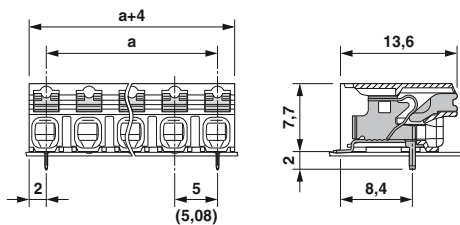


Taped PCB terminal block, connection direction horizontal to the PCB

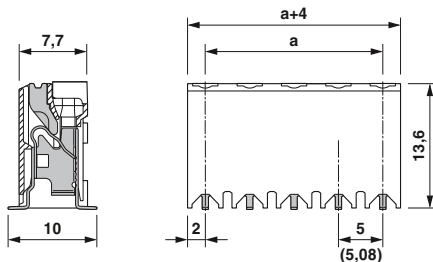


Taped PCB terminal block, connection direction vertical to the PCB

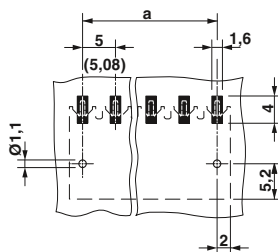
Dimensional drawing



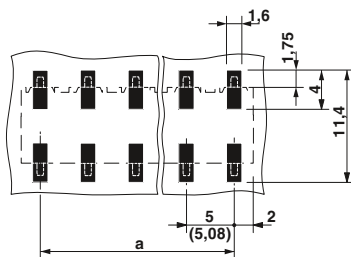
Dimensional drawing



Drilling diagram



Drilling diagram



Ordering data

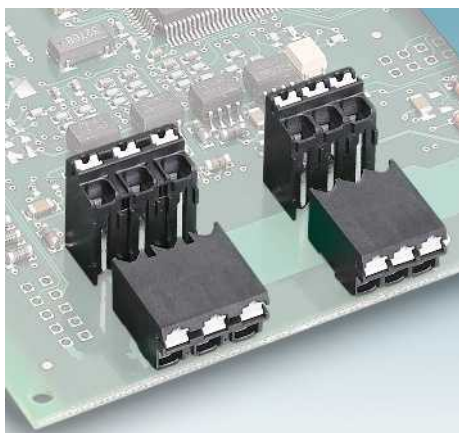
Type	Order No.	Pcs. / Pkt.
Pitch 5.0 mm, color: black		
SPT-SMD 1,5/ 2-H-5,0 R24	1824747	300
SPT-SMD 1,5/ 3-H-5,0 R32	1824750	300
SPT-SMD 1,5/ 4-H-5,0 R44	1824763	300
SPT-SMD 1,5/ 5-H-5,0 R44	1824776	300
SPT-SMD 1,5/ 6-H-5,0 R44	1824789	300
SPT-SMD 1,5/ 7-H-5,0 R88	1824792	300
SPT-SMD 1,5/ 8-H-5,0 R88	1824802	300
SPT-SMD 1,5/ 9-H-5,0 R88	1824815	300
SPT-SMD 1,5/10-H-5,0 R88	1824828	300
SPT-SMD 1,5/11-H-5,0 R88	1824831	300
SPT-SMD 1,5/12-H-5,0 R88	1824844	300
Headers, 5.08 mm pitch, color: black		
SPT-SMD 1,5/ 2-H-5,08 R24	1824857	300
SPT-SMD 1,5/ 3-H-5,08 R32	1824860	300
SPT-SMD 1,5/ 4-H-5,08 R44	1824873	300
SPT-SMD 1,5/ 5-H-5,08 R44	1824885	300
SPT-SMD 1,5/ 6-H-5,08 R44	1824899	300
SPT-SMD 1,5/ 7-H-5,08 R88	1824909	300
SPT-SMD 1,5/ 8-H-5,08 R88	1824912	300
SPT-SMD 1,5/ 9-H-5,08 R88	1824925	300
SPT-SMD 1,5/10-H-5,08 R88	1824938	300
SPT-SMD 1,5/11-H-5,08 R88	1824941	300
SPT-SMD 1,5/12-H-5,08 R88	1824954	300

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 5.0 mm, color: black		
SPT-SMD 1,5/ 2-V-5,0 R24	1824307	200
SPT-SMD 1,5/ 3-V-5,0 R32	1824310	200
SPT-SMD 1,5/ 4-V-5,0 R44	1824323	200
SPT-SMD 1,5/ 5-V-5,0 R44	1824336	200
SPT-SMD 1,5/ 6-V-5,0 R44	1824349	200
SPT-SMD 1,5/ 7-V-5,0 R88	1824352	200
SPT-SMD 1,5/ 8-V-5,0 R88	1824365	200
SPT-SMD 1,5/ 9-V-5,0 R88	1824378	200
SPT-SMD 1,5/10-V-5,0 R88	1824381	200
SPT-SMD 1,5/11-V-5,0 R88	1824394	200
SPT-SMD 1,5/12-V-5,0 R88	1824404	200
Headers, 5.08 mm pitch, color: black		
SPT-SMD 1,5/ 2-V-5,08 R24	1824417	200
SPT-SMD 1,5/ 3-V-5,08 R32	1824420	200
SPT-SMD 1,5/ 4-V-5,08 R44	1824433	200
SPT-SMD 1,5/ 5-V-5,08 R44	1824446	200
SPT-SMD 1,5/ 6-V-5,08 R44	1824459	200
SPT-SMD 1,5/ 7-V-5,08 R88	1824462	200
SPT-SMD 1,5/ 8-V-5,08 R88	1824475	200
SPT-SMD 1,5/ 9-V-5,08 R88	1824488	200
SPT-SMD 1,5/10-V-5,08 R88	1824491	200
SPT-SMD 1,5/11-V-5,08 R88	1824501	200
SPT-SMD 1,5/12-V-5,08 R88	1824514	200

PCB terminal blocks with 2.54 to 7.62 mm pitch

THR PCB terminal blocks with push-in spring connection up to 1.5 mm²



- Push-in direct plug-in technology for solid or stranded conductors
- Suitable for use in SMT reflow processes
- Horizontal and vertical design with 3.5 mm and 3.81 mm pitch
- Two solder pins for a high level of stability on the PCB
- Standard pin length of 2.6 mm also suitable for wave soldering processes
- Supplied in tape-on-reel packing according to IEC 60286-3 for automated mounting in the reflow process with pin length of 2.0 mm
- Touch connection for voltage testing using a 1 mm Ø test pin

Notes:





Dimensional drawings of tape reels and place pads can be found online at phoenixcontact.net/products.

1) Current carrying capacity curve upon request.

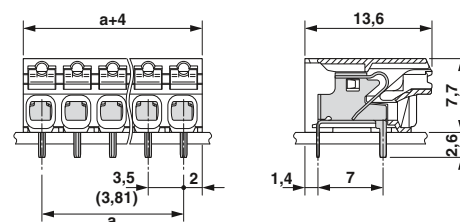


Pin length of 2.6 mm, box-packaged PCB terminal blocks, connection direction horizontal to the PCB

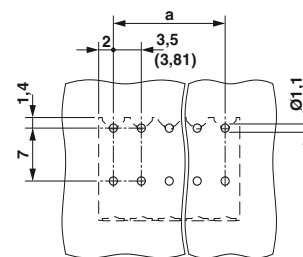
For accessories, see Catalog 1

For all types	Type	Page
	Screwdriver SZS 0,4 x 2,5 Order No. 1205037	
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Test plug MPS-MT 1-S Order No. 1944372	831

Dimensional drawing



Drilling diagram



Technical data

Technical data in accordance to IEC / DIN VDE			
Rated current / conductor cross section	[A] / [mm ²]	13.5 ¹⁾ / 1.5	
Rated insulation voltage for pollution degree 2	[V]	160	
Pitch	[mm]	3.5 / 3.81	
Connection capacity			
Solid / stranded	[mm ²] / [mm ²] / AWG	0.2 - 1.5 / 0.2 - 1.5 / 24 - 16	
Stranded with ferrules without plastic sleeve	[mm ²]	0.2 - 1.5	
Stranded with ferrules with plastic sleeve	[mm ²]	0.2 - 0.75	
Multi-conductor connection capacity (two conductors with the same cross section)			
Solid / stranded	[mm ²]	- / -	
Stranded with ferrules without plastic sleeve	[mm ²]	-	
Stranded with TWIN ferrule with plastic sleeve	[mm ²]	-	
Insulation coordination			
Surge voltage category / pollution degree		III / 3	III / 2
Rated insulation voltage	[V]	160	320
Rated surge voltage	[kV]	2.5	2.5
Approval data (UL/CUL)	Use Group	B	C
Nominal voltage	[V]	-	-
Nominal current	[A]	-	-
Connection capacity AWG	AWG	-	-
Approval data (CSA)	Use Group	B	C
Nominal voltage	[V]	-	-
Nominal current	[A]	-	-
Connection capacity AWG	AWG	-	-
General data			
Stripping length	[mm]	8	
Type of insulation material / insulation material group		LCP / IIIa	
Inflammability class according to UL 94		V0	
Drill hole diameter / pin dimensions	[mm]	1.1 / 0.7 x 0.3	

Ordering data

No. of pos.	Dim. a [mm]	Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black				
2	3.50	SPT-THR 1,5/ 2-H-3,5 P26	1822752	370
3	7.00	SPT-THR 1,5/ 3-H-3,5 P26	1822765	240
4	10.50	SPT-THR 1,5/ 4-H-3,5 P26	1822778	170
5	14.00	SPT-THR 1,5/ 5-H-3,5 P26	1822781	150
6	17.50	SPT-THR 1,5/ 6-H-3,5 P26	1822794	130
7	21.00	SPT-THR 1,5/ 7-H-3,5 P26	1822804	110
8	24.50	SPT-THR 1,5/ 8-H-3,5 P26	1822817	80
9	28.00	SPT-THR 1,5/ 9-H-3,5 P26	1822820	80
10	31.50	SPT-THR 1,5/10-H-3,5 P26	1822833	60
11	35.00	SPT-THR 1,5/11-H-3,5 P26	1822846	60
12	38.50	SPT-THR 1,5/12-H-3,5 P26	1822859	60
3.81 mm pitch, color: black				
2	3.81	SPT-THR 1,5/ 2-H-3,81 P26	1822862	350
3	7.62	SPT-THR 1,5/ 3-H-3,81 P26	1822875	240
4	11.43	SPT-THR 1,5/ 4-H-3,81 P26	1822888	170
5	15.24	SPT-THR 1,5/ 5-H-3,81 P26	1822891	130
6	19.05	SPT-THR 1,5/ 6-H-3,81 P26	1822901	110
7	22.86	SPT-THR 1,5/ 7-H-3,81 P26	1822914	80
8	26.67	SPT-THR 1,5/ 8-H-3,81 P26	1822927	80
9	30.48	SPT-THR 1,5/ 9-H-3,81 P26	1822930	60
10	34.29	SPT-THR 1,5/10-H-3,81 P26	1822943	60
11	38.10	SPT-THR 1,5/11-H-3,81 P26	1822956	60
12	41.91	SPT-THR 1,5/12-H-3,81 P26	1822969	60



Pin length of 2.6 mm, box-packaged PCB terminal blocks, connection direction vertical to the PCB



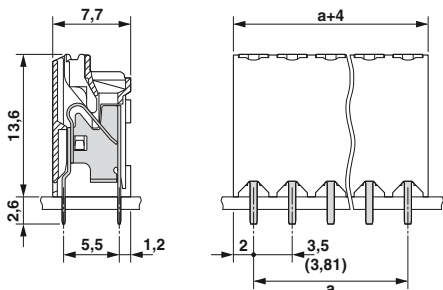
Pin length of 2.0 mm, taped PCB terminal blocks, connection direction horizontal to the PCB



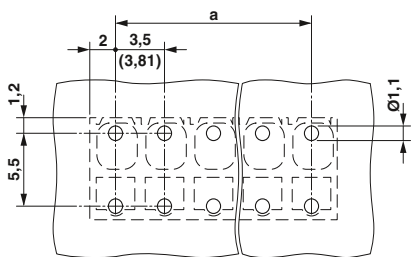
Pin length of 2.0 mm, taped PCB terminal blocks, connection direction vertical to the PCB



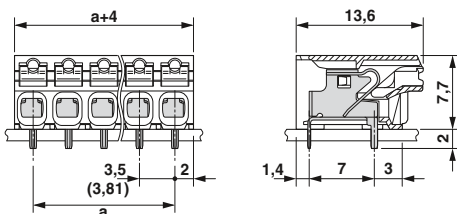
Dimensional drawing



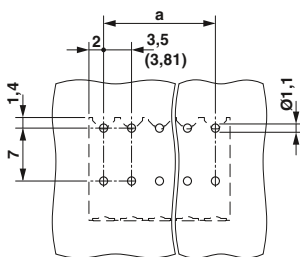
Drilling diagram



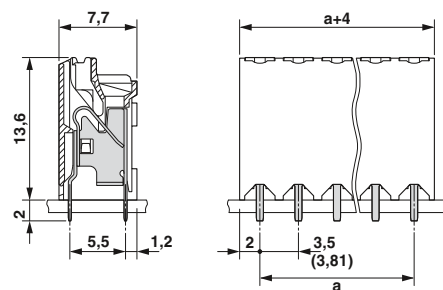
Dimensional drawing



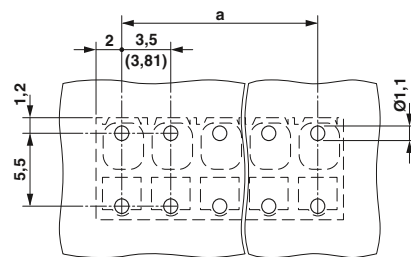
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
SPT-THR 1,5/ 2-V-3,5 P26	1822312	540
SPT-THR 1,5/ 3-V-3,5 P26	1822325	350
SPT-THR 1,5/ 4-V-3,5 P26	1822338	250
SPT-THR 1,5/ 5-V-3,5 P26	1822341	220
SPT-THR 1,5/ 6-V-3,5 P26	1822354	190
SPT-THR 1,5/ 7-V-3,5 P26	1822367	160
SPT-THR 1,5/ 8-V-3,5 P26	1822370	120
SPT-THR 1,5/ 9-V-3,5 P26	1822383	120
SPT-THR 1,5/10-V-3,5 P26	1822396	90
SPT-THR 1,5/11-V-3,5 P26	1822406	90
SPT-THR 1,5/12-V-3,5 P26	1822419	90
3.81 mm pitch, color: black		
SPT-THR 1,5/ 2-V-3,81 P26	1822422	510
SPT-THR 1,5/ 3-V-3,81 P26	1822435	350
SPT-THR 1,5/ 4-V-3,81 P26	1822448	250
SPT-THR 1,5/ 5-V-3,81 P26	1822451	190
SPT-THR 1,5/ 6-V-3,81 P26	1822464	160
SPT-THR 1,5/ 7-V-3,81 P26	1822477	120
SPT-THR 1,5/ 8-V-3,81 P26	1822480	120
SPT-THR 1,5/ 9-V-3,81 P26	1822493	90
SPT-THR 1,5/10-V-3,81 P26	1822503	90
SPT-THR 1,5/11-V-3,81 P26	1822516	90
SPT-THR 1,5/12-V-3,81 P26	1822529	60

Ordering data

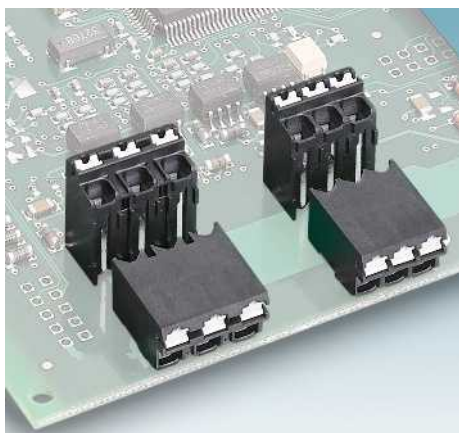
Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
SPT-THR 1,5/ 2-H-3,5 P20 R24	1823638	250
SPT-THR 1,5/ 3-H-3,5 P20 R32	1823641	250
SPT-THR 1,5/ 4-H-3,5 P20 R32	1823654	250
SPT-THR 1,5/ 5-H-3,5 P20 R32	1823667	250
SPT-THR 1,5/ 6-H-3,5 P20 R44	1823670	250
SPT-THR 1,5/ 7-H-3,5 P20 R44	1823683	250
SPT-THR 1,5/ 8-H-3,5 P20 R44	1823696	250
SPT-THR 1,5/ 9-H-3,5 P20 R72	1823706	250
SPT-THR 1,5/10-H-3,5 P20 R72	1823719	250
SPT-THR 1,5/11-H-3,5 P20 R72	1823722	250
SPT-THR 1,5/12-H-3,5 P20 R72	1823735	250
3.81 mm pitch, color: black		
SPT-THR 1,5/ 2-H-3,81 P20 R24	1823748	250
SPT-THR 1,5/ 3-H-3,81 P20 R32	1823751	250
SPT-THR 1,5/ 4-H-3,81 P20 R32	1823764	250
SPT-THR 1,5/ 5-H-3,81 P20 R32	1823777	250
SPT-THR 1,5/ 6-H-3,81 P20 R44	1823780	250
SPT-THR 1,5/ 7-H-3,81 P20 R44	1823793	250
SPT-THR 1,5/ 8-H-3,81 P20 R44	1823803	250
SPT-THR 1,5/ 9-H-3,81 P20 R72	1823816	250
SPT-THR 1,5/10-H-3,81 P20 R72	1823829	250
SPT-THR 1,5/11-H-3,81 P20 R72	1823832	250
SPT-THR 1,5/12-H-3,81 P20 R72	1823845	250

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
SPT-THR 1,5/ 2-V-3,5 P20 R24	1823191	180
SPT-THR 1,5/ 3-V-3,5 P20 R24	1823201	180
SPT-THR 1,5/ 4-V-3,5 P20 R44	1823214	180
SPT-THR 1,5/ 5-V-3,5 P20 R44	1823227	180
SPT-THR 1,5/ 6-V-3,5 P20 R44	1823230	180
SPT-THR 1,5/ 7-V-3,5 P20 R44	1823243	180
SPT-THR 1,5/ 8-V-3,5 P20 R72	1823256	180
SPT-THR 1,5/ 9-V-3,5 P20 R72	1823269	180
SPT-THR 1,5/10-V-3,5 P20 R72	1823272	180
SPT-THR 1,5/11-V-3,5 P20 R72	1823285	180
SPT-THR 1,5/12-V-3,5 P20 R72	1823298	180
3.81 mm pitch, color: black		
SPT-THR 1,5/ 2-V-3,81 P20 R24	1823308	180
SPT-THR 1,5/ 3-V-3,81 P20 R24	1823311	180
SPT-THR 1,5/ 4-V-3,81 P20 R44	1823324	180
SPT-THR 1,5/ 5-V-3,81 P20 R44	1823337	180
SPT-THR 1,5/ 6-V-3,81 P20 R44	1823340	180
SPT-THR 1,5/ 7-V-3,81 P20 R44	1823353	180
SPT-THR 1,5/ 8-V-3,81 P20 R72	1823366	180
SPT-THR 1,5/ 9-V-3,81 P20 R72	1823379	180
SPT-THR 1,5/10-V-3,81 P20 R72	1823382	180
SPT-THR 1,5/11-V-3,81 P20 R72	1823395	180
SPT-THR 1,5/12-V-3,81 P20 R72	1823405	180

PCB terminal blocks with 2.54 to 7.62 mm pitch

THR PCB terminal blocks with push-in spring connection up to 1.5 mm²



- Push-in direct plug-in technology for solid or stranded conductors
- Suitable for use in SMT reflow processes
- Horizontal and vertical design with 5.0 mm and 5.08 mm pitch
- Two solder pins for a high level of stability on the PCB
- Standard pin length of 2.6 mm also suitable for wave soldering processes
- Supplied in tape-on-reel packing according to IEC 60286-3 for automated mounting in the reflow process with pin length of 2.0 mm
- Touch connection for voltage testing using a 1 mm Ø test pin

Notes:





Dimensional drawings of tape reels and place pads can be found online at phoenixcontact.net/products.

1) Current carrying capacity curve upon request.

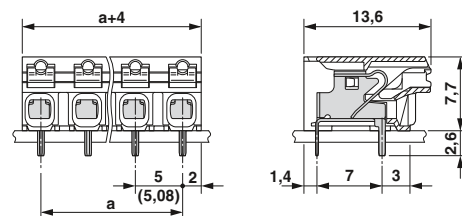


Pin length of 2.6 mm, box-packaged PCB terminal blocks, connection direction horizontal to the PCB

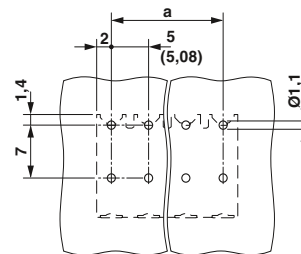
For accessories, see Catalog 1

For all types	Type	Page
	Screwdriver SZS 0,4 x 2,5 Order No. 1205037	
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Test plug MPS-MT 1-S Order No. 1944372	831

Dimensional drawing



Drilling diagram



Technical data

Technical data in accordance to IEC / DIN VDE	
Rated current / conductor cross section	[A] / [mm ²]
Rated insulation voltage for pollution degree 2	[V]
Pitch	[mm]
Connection capacity	
Solid / stranded	[mm ²] / [mm ²] / AWG
Stranded with ferrules without plastic sleeve	[mm ²]
Stranded with ferrules with plastic sleeve	[mm ²]
Multi-conductor connection capacity (two conductors with the same cross section)	
Solid / stranded	[mm ²]
Stranded with ferrules without plastic sleeve	[mm ²]
Stranded with TWIN ferrule with plastic sleeve	[mm ²]
Insulation coordination	
Surge voltage category / pollution degree	III / 3 III / 2 II / 2
Rated insulation voltage	[V]
Rated surge voltage	[kV]
Approval data (UL/CUL)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
Approval data (CSA)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
General data	
Stripping length	[mm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

13.5 ¹⁾ / 1.5		
320		
5 / 5.08		
0.2 - 1.5 / 0.2 - 1.5 / 24 - 16		
0.2 - 1.5		
0.2 - 0.75		
- / -		
-		
-		
III / 3	III / 2	II / 2
250	320	500
4	4	4
B	C	D
-	-	-
-	-	-
-	-	-
B	C	D
-	-	-
-	-	-
-	-	-
8		
LCP / IIIa		
V0		
1.1 / 0.7 x 0.3 mm		

No. of pos.	Dim. a [mm]
2	5.00
3	10.00
4	15.00
5	20.00
6	25.00
7	30.00
8	35.00
9	40.00
10	45.00
11	50.00
12	55.00

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 5.0 mm, color: black		
SPT-THR 1,5/ 2-H-5,0 P26	1822972	300
SPT-THR 1,5/ 3-H-5,0 P26	1822985	190
SPT-THR 1,5/ 4-H-5,0 P26	1822998	130
SPT-THR 1,5/ 5-H-5,0 P26	1823007	110
SPT-THR 1,5/ 6-H-5,0 P26	1823010	80
SPT-THR 1,5/ 7-H-5,0 P26	1823023	60
SPT-THR 1,5/ 8-H-5,0 P26	1823036	60
SPT-THR 1,5/ 9-H-5,0 P26	1823049	40
SPT-THR 1,5/10-H-5,0 P26	1823052	40
SPT-THR 1,5/11-H-5,0 P26	1823065	40
SPT-THR 1,5/12-H-5,0 P26	1823078	40
Headers, 5.08 mm pitch, color: black		
SPT-THR 1,5/ 2-H-5,08 P26	1823081	300
SPT-THR 1,5/ 3-H-5,08 P26	1823094	190
SPT-THR 1,5/ 4-H-5,08 P26	1823104	130
SPT-THR 1,5/ 5-H-5,08 P26	1823117	110
SPT-THR 1,5/ 6-H-5,08 P26	1823120	80
SPT-THR 1,5/ 7-H-5,08 P26	1823133	60
SPT-THR 1,5/ 8-H-5,08 P26	1823146	60
SPT-THR 1,5/ 9-H-5,08 P26	1823159	40
SPT-THR 1,5/10-H-5,08 P26	1823162	40
SPT-THR 1,5/11-H-5,08 P26	1823175	40
SPT-THR 1,5/12-H-5,08 P26	1823188	40



Pin length of 2.6 mm, box-packaged PCB terminal blocks, connection direction vertical to the PCB



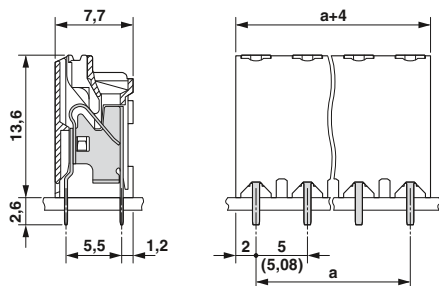
Pin length of 2.0 mm, taped PCB terminal blocks, connection direction horizontal to the PCB



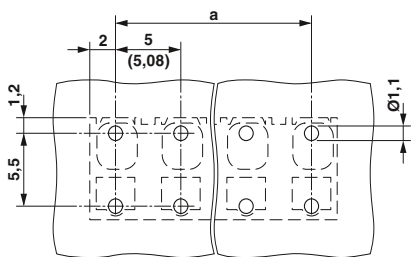
Pin length of 2.0 mm, taped PCB terminal blocks, connection direction vertical to the PCB



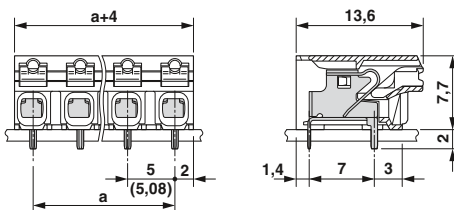
Dimensional drawing



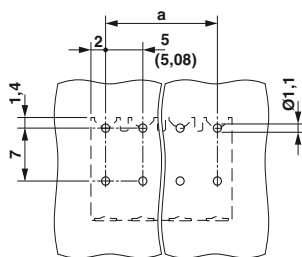
Drilling diagram



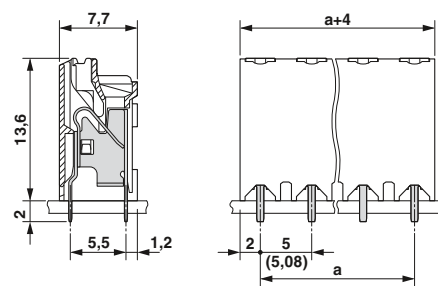
Dimensional drawing



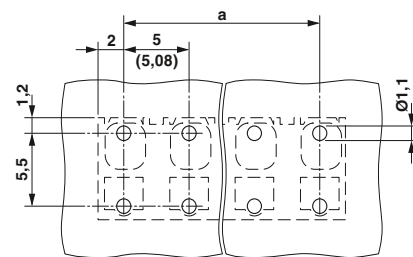
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 5.0 mm, color: black		
SPT-THR 1,5/ 2-V-5,0 P26	1822532	440
SPT-THR 1,5/ 3-V-5,0 P26	1822545	280
SPT-THR 1,5/ 4-V-5,0 P26	1822558	190
SPT-THR 1,5/ 5-V-5,0 P26	1822561	160
SPT-THR 1,5/ 6-V-5,0 P26	1822574	120
SPT-THR 1,5/ 7-V-5,0 P26	1822587	90
SPT-THR 1,5/ 8-V-5,0 P26	1822590	90
SPT-THR 1,5/ 9-V-5,0 P26	1822600	60
SPT-THR 1,5/10-V-5,0 P26	1822613	60
SPT-THR 1,5/11-V-5,0 P26	1822626	60
SPT-THR 1,5/12-V-5,0 P26	1822639	60
Headers, 5.08 mm pitch, color: black		
SPT-THR 1,5/ 2-V-5,08 P26	1822642	440
SPT-THR 1,5/ 3-V-5,08 P26	1822655	280
SPT-THR 1,5/ 4-V-5,08 P26	1822668	190
SPT-THR 1,5/ 5-V-5,08 P26	1822671	160
SPT-THR 1,5/ 6-V-5,08 P26	1822684	120
SPT-THR 1,5/ 7-V-5,08 P26	1822697	90
SPT-THR 1,5/ 8-V-5,08 P26	1822707	90
SPT-THR 1,5/ 9-V-5,08 P26	1822710	60
SPT-THR 1,5/10-V-5,08 P26	1822723	60
SPT-THR 1,5/11-V-5,08 P26	1822736	60
SPT-THR 1,5/12-V-5,08 P26	1822749	60

Ordering data

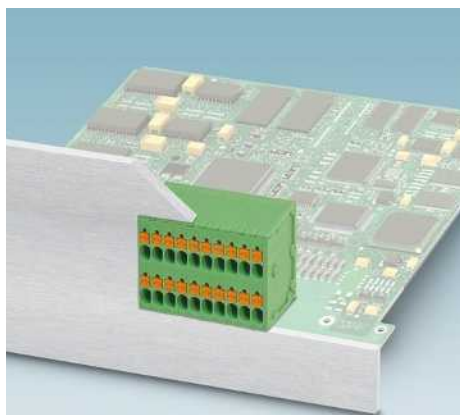
Type	Order No.	Pcs. / Pkt.
Pitch 5.0 mm, color: black		
SPT-THR 1,5/ 2-H-5,0 P20 R24	1823858	250
SPT-THR 1,5/ 3-H-5,0 P20 R32	1823861	250
SPT-THR 1,5/ 4-H-5,0 P20 R32	1823874	250
SPT-THR 1,5/ 5-H-5,0 P20 R56	1823887	250
SPT-THR 1,5/ 6-H-5,0 P20 R56	1823890	250
SPT-THR 1,5/ 7-H-5,0 P20 R56	1823900	250
SPT-THR 1,5/ 8-H-5,0 P20 R56	1823913	250
SPT-THR 1,5/ 9-H-5,0 P20 R88	1823926	250
SPT-THR 1,5/10-H-5,0 P20 R88	1823939	250
SPT-THR 1,5/11-H-5,0 P20 R88	1823942	250
SPT-THR 1,5/12-H-5,0 P20 R88	1823955	250
Headers, 5.08 mm pitch, color: black		
SPT-THR 1,5/ 2-H-5,08 P20 R24	1823968	250
SPT-THR 1,5/ 3-H-5,08 P20 R32	1823971	250
SPT-THR 1,5/ 4-H-5,08 P20 R32	1823984	250
SPT-THR 1,5/ 5-H-5,08 P20 R56	1823997	250
SPT-THR 1,5/ 6-H-5,08 P20 R56	1824006	250
SPT-THR 1,5/ 7-H-5,08 P20 R56	1824019	250
SPT-THR 1,5/ 8-H-5,08 P20 R56	1824022	250
SPT-THR 1,5/ 9-H-5,08 P20 R88	1824035	250
SPT-THR 1,5/10-H-5,08 P20 R88	1824048	250
SPT-THR 1,5/11-H-5,08 P20 R88	1824051	250
SPT-THR 1,5/12-H-5,08 P20 R88	1824064	250

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 5.0 mm, color: black		
SPT-THR 1,5/ 2-V-5,0 P20 R24	1823418	180
SPT-THR 1,5/ 3-V-5,0 P20 R32	1823421	180
SPT-THR 1,5/ 4-V-5,0 P20 R56	1823434	180
SPT-THR 1,5/ 5-V-5,0 P20 R56	1823447	180
SPT-THR 1,5/ 6-V-5,0 P20 R56	1823450	180
SPT-THR 1,5/ 7-V-5,0 P20 R56	1823463	180
SPT-THR 1,5/ 8-V-5,0 P20 R88	1823476	180
SPT-THR 1,5/ 9-V-5,0 P20 R88	1823489	180
SPT-THR 1,5/10-V-5,0 P20 R88	1823492	180
SPT-THR 1,5/11-V-5,0 P20 R88	1823502	180
SPT-THR 1,5/12-V-5,0 P20 R88	1823515	180
Headers, 5.08 mm pitch, color: black		
SPT-THR 1,5/ 2-V-5,08 P20 R24	1823528	180
SPT-THR 1,5/ 3-V-5,08 P20 R32	1823531	180
SPT-THR 1,5/ 4-V-5,08 P20 R56	1823544	180
SPT-THR 1,5/ 5-V-5,08 P20 R56	1823557	180
SPT-THR 1,5/ 6-V-5,08 P20 R56	1823560	180
SPT-THR 1,5/ 7-V-5,08 P20 R56	1823573	180
SPT-THR 1,5/ 8-V-5,08 P20 R88	1823586	180
SPT-THR 1,5/ 9-V-5,08 P20 R88	1823599	180
SPT-THR 1,5/10-V-5,08 P20 R88	1823609	180
SPT-THR 1,5/11-V-5,08 P20 R88	1823612	180
SPT-THR 1,5/12-V-5,08 P20 R88	1823625	180

PCB terminal blocks with 2.54 to 7.62 mm pitch

Double-level PCB terminal blocks with push-in spring connection up to 1.5 mm²








- Push-in connection with spring lever for tool-free conductor connection
- Unique integration into front panels in two rows
- Conductor cross sections up to 1.5 mm² with ferrule
- Printing area at the front
- Touch connection for voltage testing using a 1 mm test pin

Notes:

1) Current carrying capacity curve upon request.

For accessories, see Catalog 1

For all types	Type	Page
	Marker cards SK 3,5/2,8	796
	Screwdriver SZS 0,4 x 2,5 Order No. 1205037	
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Test plug MPS-MT 1-S Order No. 1944372	831

Technical data

Technical data in accordance to IEC / DIN VDE	
Rated current / conductor cross section	[A] / [mm ²]
Rated insulation voltage for pollution degree 2	[V]
Pitch	[mm]
Connection capacity	
Solid / stranded	[mm ²] / [mm ²] / AWG
Stranded with ferrules without plastic sleeve	[mm ²]
Stranded with ferrules with plastic sleeve	[mm ²]
Insulation coordination	
Surge voltage category / pollution degree	
Rated insulation voltage	[V]
Rated surge voltage	[kV]
Approval data (UL/CUL)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
Approval data (CSA)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
General data	
Stripping length	[mm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

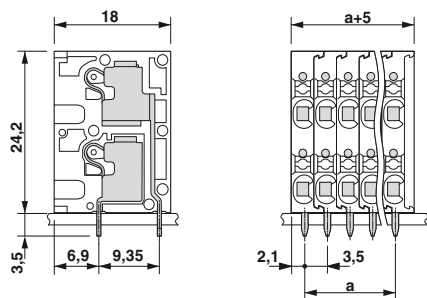
	10 ¹) / 1.5
	200
	3.5
	0.14 - 1.5 / 0.14 - 1.5 / 24 - 14
	0.2 - 1.5
	0.2 - 1.5
	III / 3 III / 2 II / 2
	160 200 400
	2.5 2.5 2.5
	B C D
	- - -
	- - -
	- - -
	B C D
	- - -
	- - -
	- - -
	8
	PA / I
	V0
	1.3 / 0.6 x 1.0 mm

No. of pos.	Dim. a [mm]
2	3.50
3	7.00
4	10.50
5	14.00
6	17.50
7	21.00
8	24.50
9	28.00
10	31.50
11	35.00
12	38.50

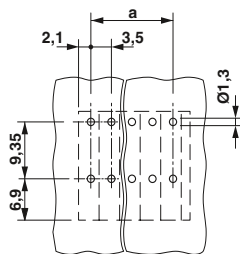


Horizontal connection direction

Dimensional drawing



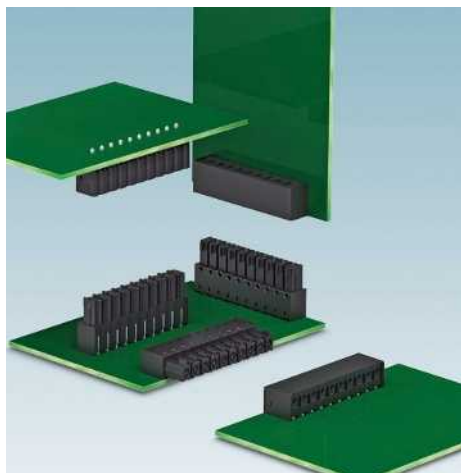
Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
3.5 mm pitch, color: green		
SPTD 1,5/ 2-H-3,5	1841490	100
SPTD 1,5/ 3-H-3,5	1841500	100
SPTD 1,5/ 4-H-3,5	1841513	100
SPTD 1,5/ 5-H-3,5	1841526	100
SPTD 1,5/ 6-H-3,5	1841539	100
SPTD 1,5/ 7-H-3,5	1841542	100
SPTD 1,5/ 8-H-3,5	1841555	100
SPTD 1,5/ 9-H-3,5	1841568	100
SPTD 1,5/10-H-3,5	1841571	100
SPTD 1,5/11-H-3,5	1841584	100
SPTD 1,5/12-H-3,5	1841597	100

Inverted headers for reflow processes



- Inverted headers with a 3.5 mm pitch
- Plug-in direction parallel or vertical to the PCB
- Versions with snap-in lug for locking inverted plugs with self-locking flanges
- You can find user notes and recommendations for the THR procedure in Catalog 1
- Combination with MC 1,5 pin strips for the PCB/PCB connection

Notes:

In accordance with DIN EN 61984, COMBICON connectors have no switching power. During designated use, they must not be plugged in or disconnected when carrying voltage or under load.

COMBICON select


Possible combinations for connectors can be found in COMBICON select at phoenixcontact.net/products.

¹⁾ Current carrying capacity curve upon request.

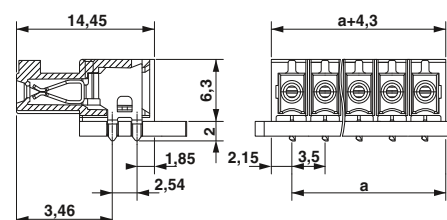


2.0 mm pin length
Box-packaged headers,
Plug-in direction parallel to the PCB

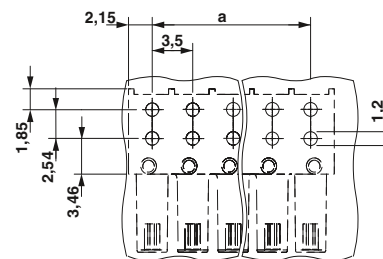
For accessories, see Catalog 1

For all types	Type	Page
	Marker cards SK 3,5/2,8	796

Dimensional drawing



Drilling diagram



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current	[A]	8 ¹⁾
Rated insulation voltage for pollution degree 2	[V]	160
Pitch	[mm]	3.5
Insulation coordination		
Surge voltage category / pollution degree		III / 3 III / 2 II / 2
Rated insulation voltage	[V]	160 160 320
Rated surge voltage	[kV]	2.5 2.5 2.5
Approval data (UL/CUL)	Use Group	B C D
Nominal voltage	[V]	- - -
Nominal current	[A]	- - -
Connection capacity AWG	AWG	- - -
Approval data (CSA)	Use Group	B C D
Nominal voltage	[V]	- - -
Nominal current	[A]	- - -
Connection capacity AWG	AWG	- - -
General data		
Type of insulation material / insulation material group		LCP / IIIa
Inflammability class according to UL 94		V0
Drill hole diameter / pin dimensions	[mm]	1.2 / 0.8 x 0.8 mm

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
IMC 1,5/ 2-G-3,5 P20 THR	1830414	50
IMC 1,5/ 3-G-3,5 P20 THR	1830427	50
IMC 1,5/ 4-G-3,5 P20 THR	1830430	50
IMC 1,5/ 5-G-3,5 P20 THR	1830443	50
IMC 1,5/ 6-G-3,5 P20 THR	1830456	50
IMC 1,5/ 7-G-3,5 P20 THR	1830469	50
IMC 1,5/ 8-G-3,5 P20 THR	1830472	50
IMC 1,5/ 9-G-3,5 P20 THR	1830485	50
IMC 1,5/10-G-3,5 P20 THR	1830498	50
IMC 1,5/11-G-3,5 P20 THR	1830508	50
IMC 1,5/12-G-3,5 P20 THR	1830511	50



Pin length of 2.0 mm, with snap-in lug,
box-packaged headers,
plug-in direction parallel to the PCB

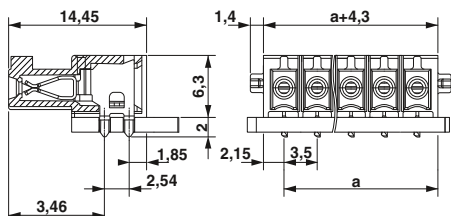


2.0 mm pin length
Box-packaged headers,
Plug-in direction vertical to the PCB

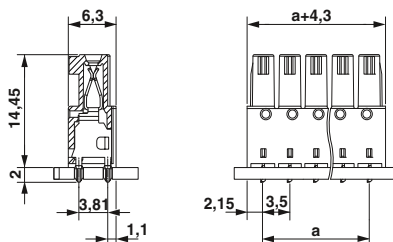


Pin length of 2.0 mm, with snap-in lug,
box-packaged headers,
plug-in direction vertical to the PCB

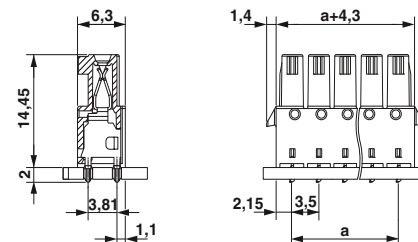
Dimensional drawing



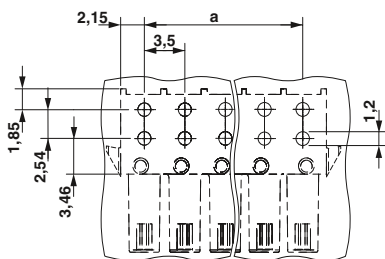
Dimensional drawing



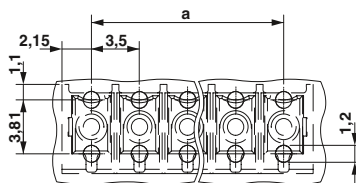
Dimensional drawing



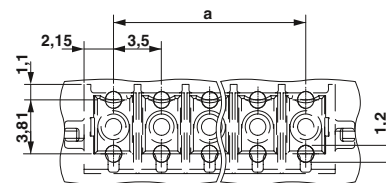
Drilling diagram



Drilling diagram



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
IMC 1,5/ 2-G-3,5 RN P20 THR	1830566	50
IMC 1,5/ 3-G-3,5 RN P20 THR	1830579	50
IMC 1,5/ 4-G-3,5 RN P20 THR	1830582	50
IMC 1,5/ 5-G-3,5 RN P20 THR	1830595	50
IMC 1,5/ 6-G-3,5 RN P20 THR	1830605	50
IMC 1,5/ 7-G-3,5 RN P20 THR	1830618	50
IMC 1,5/ 8-G-3,5 RN P20 THR	1830621	50
IMC 1,5/ 9-G-3,5 RN P20 THR	1830634	50
IMC 1,5/10-G-3,5 RN P20 THR	1830647	50
IMC 1,5/11-G-3,5 RN P20 THR	1830650	50
IMC 1,5/12-G-3,5 RN P20 THR	1830663	50

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
IMCV 1,5/ 2-G-3,5 P20 THR	1830715	50
IMCV 1,5/ 3-G-3,5 P20 THR	1830728	50
IMCV 1,5/ 4-G-3,5 P20 THR	1830731	50
IMCV 1,5/ 5-G-3,5 P20 THR	1830744	50
IMCV 1,5/ 6-G-3,5 P20 THR	1830757	50
IMCV 1,5/ 7-G-3,5 P20 THR	1830760	50
IMCV 1,5/ 8-G-3,5 P20 THR	1830773	50
IMCV 1,5/ 9-G-3,5 P20 THR	1830786	50
IMCV 1,5/10-G-3,5 P20 THR	1830799	50
IMCV 1,5/11-G-3,5 P20 THR	1830809	50
IMCV 1,5/12-G-3,5 P20 THR	1830812	50

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 3.5 mm, color: black		
IMCV 1,5/ 2-G-3,5 RN P20 THR	1830867	50
IMCV 1,5/ 3-G-3,5 RN P20 THR	1830870	50
IMCV 1,5/ 4-G-3,5 RN P20 THR	1830883	50
IMCV 1,5/ 5-G-3,5 RN P20 THR	1830896	50
IMCV 1,5/ 6-G-3,5 RN P20 THR	1830906	50
IMCV 1,5/ 7-G-3,5 RN P20 THR	1830919	50
IMCV 1,5/ 8-G-3,5 RN P20 THR	1830922	50
IMCV 1,5/ 9-G-3,5 RN P20 THR	1830935	50
IMCV 1,5/10-G-3,5 RN P20 THR	1830948	50
IMCV 1,5/11-G-3,5 RN P20 THR	1830951	50
IMCV 1,5/12-G-3,5 RN P20 THR	1830964	50

Connector systems with a 3.5/3.81 and 5.08 mm pitch

Single-level header for reflow processes



- 13 to 20 pos. headers with a 3.81 mm pitch
- High-precision pin strips for increased tolerance requirements
- Short 2.0 mm pin for reduced overhang in 1.6 mm PCBs
- You can find user notes and recommendations for the THR procedure in Catalog 1
- For further numbers of positions, visit phoenixcontact.net/products

Notes:

In accordance with DIN EN 61984, COMBICON connectors have no switching power. During designated use, they must not be plugged in or disconnected when carrying voltage or under load.

COMBICON select

Possible combinations for connectors can be found in COMBICON select at phoenixcontact.net/products.



CP-MSTB and SK 3,... may only be used after reflow soldering.

Dimensional drawings of the free space for solder paste, the tape, and pick-and-place pads can be found online at phoenixcontact.net/products.

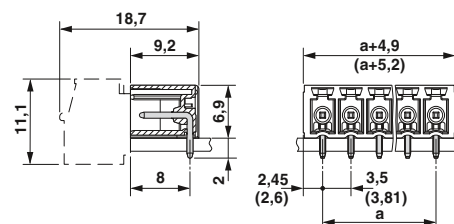


Pin length 2.0 mm,
Box-packaged headers,
Plug-in direction parallel to the PCB

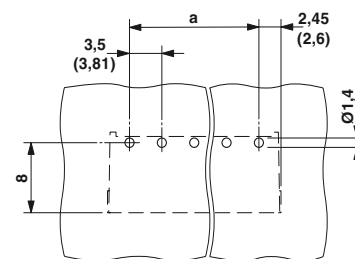
For accessories, see Catalog 1

For all types	Type	Page
	Coding profile CP-MSTB Order No. 1734634	
	Marker cards SK 3,5/2,8 or SK 3,81/2,8	796

Dimensional drawing



Drilling diagram



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current	[A]	8
Rated insulation voltage for pollution degree 2	[V]	160
Pitch	[mm]	3.81
Insulation coordination		
Surge voltage category / pollution degree		III / 3 III / 2 II / 2
Rated insulation voltage	[V]	160 160 250
Rated surge voltage	[kV]	2.5 2.5 2.5
Approval data (UL/CUL)	Use Group	B C D
Nominal voltage	[V]	- - -
Nominal current	[A]	- - -
Connection capacity AWG	AWG	- - -
Approval data (CSA)	Use Group	B C D
Nominal voltage	[V]	- - -
Nominal current	[A]	- - -
Connection capacity AWG	AWG	- - -
General data		
Type of insulation material / insulation material group		LCP / IIIa
Inflammability class according to UL 94		V0
Drill hole diameter / pin dimensions	[mm]	1.4 / 0.8 x 0.8 mm

Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MC 1,5/13-G-3,81 P20 THR	1829056	50
MC 1,5/14-G-3,81 P20 THR	1829069	50
MC 1,5/15-G-3,81 P20 THR	1829072	50
MC 1,5/16-G-3,81 P20 THR	1829085	50
MC 1,5/17-G-3,81 P20 THR	1829098	50
MC 1,5/18-G-3,81 P20 THR	1829108	50
MC 1,5/19-G-3,81 P20 THR	1829111	50
MC 1,5/20-G-3,81 P20 THR	1829124	50



Pin length 2.0 mm, with threaded flange
Box-packaged headers,
Plug-in direction parallel to the PCB

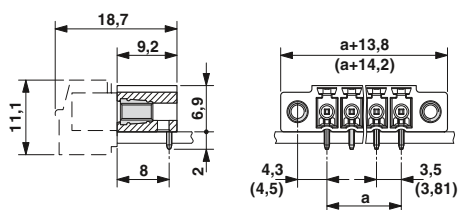


Pin length 2.0 mm,
Box-packaged headers,
Plug-in direction vertical to the PCB

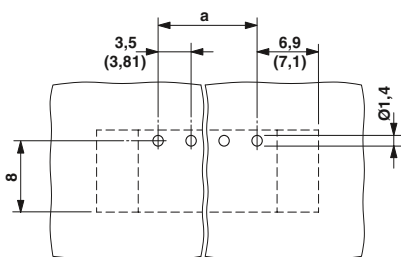


Pin length 2.0 mm, with threaded flange
Box-packaged headers,
Plug-in direction vertical to the PCB

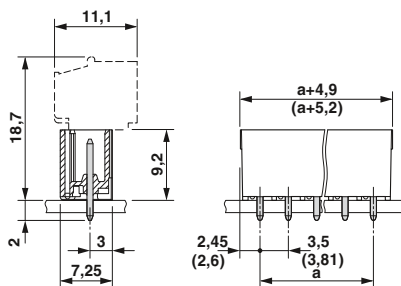
Dimensional drawing



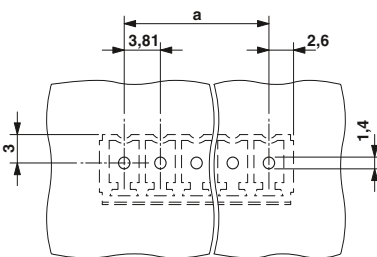
Drilling diagram



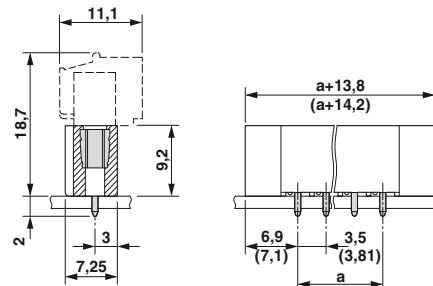
Dimensional drawing



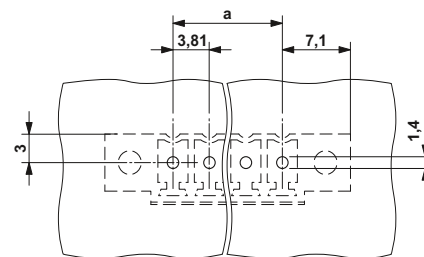
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MC 1,5/13-GF-3,81 P20 THR	1829137	50
MC 1,5/14-GF-3,81 P20 THR	1829140	50
MC 1,5/15-GF-3,81 P20 THR	1829153	50
MC 1,5/16-GF-3,81 P20 THR	1829166	50
MC 1,5/17-GF-3,81 P20 THR	1829179	50
MC 1,5/18-GF-3,81 P20 THR	1829182	50
MC 1,5/19-GF-3,81 P20 THR	1829195	50
MC 1,5/20-GF-3,81 P20 THR	1829205	50

Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MCV 1,5/13-G-3,81 P20 THR	1828895	50
MCV 1,5/14-G-3,81 P20 THR	1828905	50
MCV 1,5/15-G-3,81 P20 THR	1828918	50
MCV 1,5/16-G-3,81 P20 THR	1828921	50
MCV 1,5/17-G-3,81 P20 THR	1828934	50
MCV 1,5/18-G-3,81 P20 THR	1828947	50
MCV 1,5/19-G-3,81 P20 THR	1828950	50
MCV 1,5/20-G-3,81 P20 THR	1828963	50

Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MCV 1,5/13-GF-3,81 P20 THR	1828976	50
MCV 1,5/14-GF-3,81 P20 THR	1828989	50
MCV 1,5/15-GF-3,81 P20 THR	1828992	50
MCV 1,5/16-GF-3,81 P20 THR	1829001	50
MCV 1,5/17-GF-3,81 P20 THR	1829014	50
MCV 1,5/18-GF-3,81 P20 THR	1829027	50
MCV 1,5/19-GF-3,81 P20 THR	1829030	50
MCV 1,5/20-GF-3,81 P20 THR	1829043	50

PCB connection technology and electronics housing

Connector systems with a 3.5/3.81 and 5.08 mm pitch

Single-level header for reflow processes



- 13 to 20 pos. headers with a 3.81 mm pitch
- High-precision pin strips for increased tolerance requirements
- Short 2.0 mm pin for reduced overhang in 1.6 mm PCBs
- Tape-on-reel packing according to IEC 60286-3 for automated mounting
- Tape width corresponds to order designation, e.g., R32 = 32 mm tape width
- You can find user notes and recommendations for the THR procedure in Catalog 1
- For further numbers of positions, visit phoenixcontact.net/products

Notes:

In accordance with DIN EN 61984, COMBICON connectors have no switching power. During designated use, they must not be plugged in or disconnected when carrying voltage or under load.

COMBICON select

Possible combinations for connectors can be found in COMBICON select at phoenixcontact.net/products.



CP-MSTB and SK 3,... may only be used after reflow soldering.

Pick and place pads for taped THR articles usually protrude beyond the components. The PCB layout must ensure that collisions are avoided when components are assembled. Dimensional drawings of the pick and place pads can be found online at phoenixcontact.net/products.

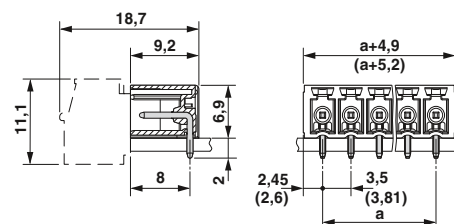


Pin length 2.0 mm,
Taped headers,
Plug-in direction parallel to the PCB

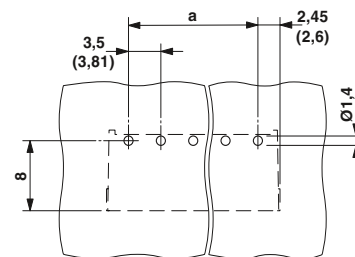
For accessories, see Catalog 1

For all types	Type	Page
	Coding profile CP-MSTB Order No. 1734634	
	Marker cards SK 3,5/2,8 or SK 3,81/2,8	796

Dimensional drawing



Drilling diagram



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current	[A]	8
Rated insulation voltage for pollution degree 2	[V]	-
Pitch	[mm]	-
Insulation coordination		
Surge voltage category / pollution degree		III / 3 III / 2 II / 2
Rated insulation voltage	[V]	160
Rated surge voltage	[kV]	
Approval data (UL/CUL)	Use Group	B C D
Nominal voltage	[V]	- - -
Nominal current	[A]	- - -
Connection capacity AWG	AWG	- - -
Approval data (CSA)	Use Group	B C D
Nominal voltage	[V]	- - -
Nominal current	[A]	- - -
Connection capacity AWG	AWG	- - -
General data		
Type of insulation material / insulation material group		- / -
Inflammability class according to UL 94		-

Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MC 1,5/13-G-3,81 P20 THRR72	1828691	470
MC 1,5/14-G-3,81 P20 THRR88	1828701	470
MC 1,5/15-G-3,81 P20 THRR88	1828714	470
MC 1,5/16-G-3,81 P20 THRR88	1828727	470
MC 1,5/17-G-3,81 P20 THRR88	1828730	470
MC 1,5/18-G-3,81 P20 THRR88	1828743	470
MC 1,5/19-G-3,81 P20 THRR104	1828756	470
MC 1,5/20-G-3,81 P20 THRR104	1828769	470



Pin length 2.0 mm, with threaded flange,
Taped headers,
Plug-in direction parallel to the PCB

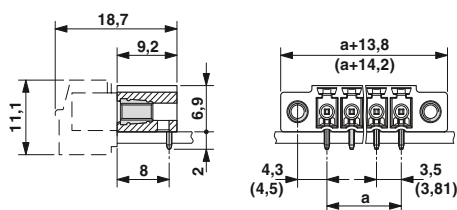


Pin length 2.0 mm,
Taped headers,
Plug-in direction vertical to the PCB

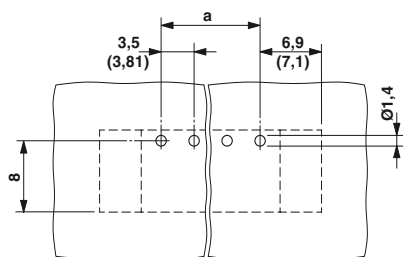


Pin length 2.0 mm, with threaded flange,
Taped headers,
Plug-in direction vertical to the PCB

Dimensional drawing



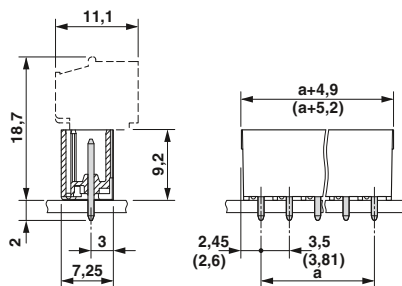
Drilling diagram



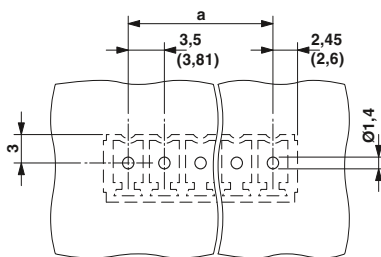
Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MC 1,5/13-GF-3,81 P20 THRR72	1828772	470
MC 1,5/14-GF-3,81 P20 THRR88	1828785	470
MC 1,5/15-GF-3,81 P20 THRR88	1828798	470
MC 1,5/16-GF-3,81 P20 THRR88	1828808	470
MC 1,5/17-GF-3,81 P20 THRR88	1828811	470
MC 1,5/18-GF-3,81 P20 THRR88	1828824	470
MC 1,5/19-GF-3,81 P20 THRR104	1828837	470
MC 1,5/20-GF-3,81 P20 THRR104	1828840	470

Dimensional drawing



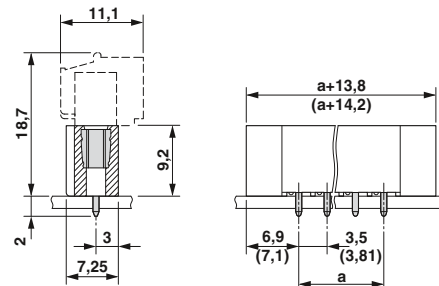
Drilling diagram



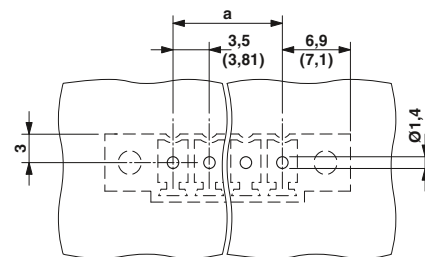
Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MCV 1,5/13-G-3,81 P20 THRR72	1828536	200
MCV 1,5/14-G-3,81 P20 THRR88	1828549	200
MCV 1,5/15-G-3,81 P20 THRR88	1828522	200
MCV 1,5/16-G-3,81 P20 THRR88	1828565	200
MCV 1,5/17-G-3,81 P20 THRR88	1828578	200
MCV 1,5/18-G-3,81 P20 THRR88	1828581	200
MCV 1,5/19-G-3,81 P20 THRR104	1828594	200
MCV 1,5/20-G-3,81 P20 THRR104	1828604	200

Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
3.81 mm pitch, color: black		
MCV 1,5/13-GF-3,81 P20 THRR72	1828617	200
MCV 1,5/14-GF-3,81 P20 THRR88	1828620	200
MCV 1,5/15-GF-3,81 P20 THRR88	1828633	200
MCV 1,5/16-GF-3,81 P20 THRR88	1828646	200
MCV 1,5/17-GF-3,81 P20 THRR88	1828659	200
MCV 1,5/18-GF-3,81 P20 THRR88	1828662	200
MCV 1,5/19-GF-3,81 P20 THRR104	1828675	200
MCV 1,5/20-GF-3,81 P20 THRR104	1828688	200




Plug with spring-cage connection up to 0.75 mm²



- Specifically designed for use in reflow and SMT processes
- High current carrying capacity of 6 A
- Robust solder anchor for secure, mechanical fixing to the surface
- Supplied in taped packaging according to IEC 60286-3 for automatic assembly
- Compatible with PTSM...-/PTPM...plugs
- 2.5 mm pitch

Notes:
PTSM plugs and headers are also available in black.
COMBICON select Possible combinations for connectors can be found in COMBICON select at phoenixcontact.net/products .
Pick and place pads for taped THR articles usually protrude beyond the components. The PCB layout must ensure that collisions are avoided when components are assembled. Dimensional drawings of the pick and place pads can be found online at phoenixcontact.net/products .
1) Current carrying dependent upon plug used
2) 0.75 mm ² possible, terminates the conductor insulation before the terminal block.

For accessories, see Catalog 1

For all types	Type	Page
	Screwdriver SZS 0,4 X 2,0 Order No. 1205202	
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	

Technical data

Technical data in accordance to IEC / DIN VDE	
Rated current	[A]
Rated insulation voltage for pollution degree 2	[V]
Pitch	[mm]
Connection capacity	
Solid / stranded	[mm ²] / [mm ²] / AWG
Stranded with ferrules without plastic sleeve	[mm ²]
Stranded with ferrules with plastic sleeve	[mm ²]
Insulation coordination	
Surge voltage category / pollution degree	
Rated insulation voltage	[V]
Rated surge voltage	[kV]
Approval data (UL/CUL)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
Approval data (CSA)	Use Group
Nominal voltage	[V]
Nominal current	[A]
Connection capacity AWG	AWG
General data	
Type of insulation material / insulation material group	
Inflammability class according to UL 94	

PTSM 0,5/...-HV-2,5-SMD R..			PTSM 0,5/ ...-HTB-2,5-SMD WH R32			PTSM 0,5/ 1-2,5-H SMD WH L R24		
6 ¹⁾			6 ¹⁾			6 ¹⁾ / 0.5		
160			160			250		
2.5			2.5			-		
- / - / -			- / - / -			0.14 - 0.5 / 0.2 - 0.5 ²⁾ / 26 - 20		
-			-			0.25 - 0.5		
-			-			-		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
125	160	250	125	160	250	63	250	320
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
B	C	D	B	C	D	B	C	D
-	-	-	-	-	-	150	-	-
-	-	-	-	-	-	5	-	-
-	-	-	-	-	-	26-20	-	-
B	C	D	B	C	D	B	C	D
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
PA / I			PA / I			PA / I		
V0			V0			V0		

No. of pos.	Dim. a [mm]
1	
2	2.50
3	5.00
4	7.50
5	10.00
6	12.50
7	15.00
8	17.50



Vertical header
for SMD applications

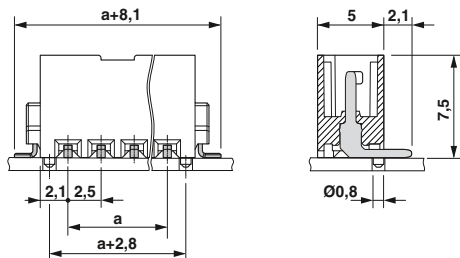


Through board header
for SMD applications

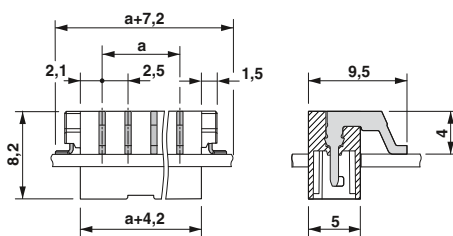


1-pos. horizontal PCB terminal block for SMD
applications

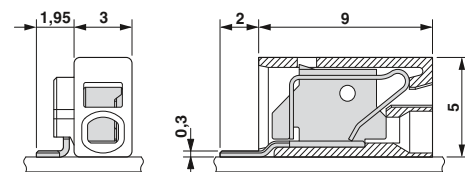
Dimensional drawing



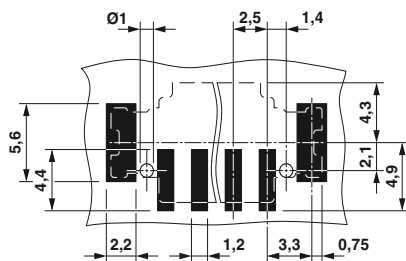
Dimensional drawing



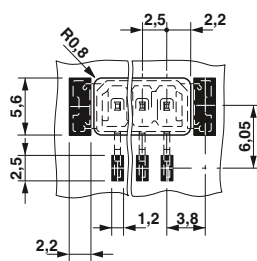
Dimensional drawing



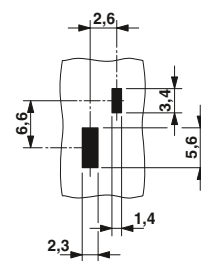
Drilling diagram



Drilling diagram



Drilling diagram



Ordering data

Type
2.5 mm pitch, color: white

Order No. Pcs. / Pkt.

PTSM 0,5/ 2-HV-2,5-SMD WH R32	1778696	500
PTSM 0,5/ 3-HV-2,5-SMD WH R32	1778706	500
PTSM 0,5/ 4-HV-2,5-SMD WH R44	1778719	400
PTSM 0,5/ 5-HV-2,5-SMD WH R44	1778722	400
PTSM 0,5/ 6-HV-2,5-SMD WH R44	1778735	400
PTSM 0,5/ 7-HV-2,5-SMD WH R44	1778748	400
PTSM 0,5/ 8-HV-2,5-SMD WH R44	1778751	400

Ordering data

Type
2.5 mm pitch, color: white

Order No. Pcs. / Pkt.

PTSM 0,5/ 2-HTB-2,5-SMD WH R32	1830126	330
PTSM 0,5/ 3-HTB-2,5-SMD WH R32	1830139	330
PTSM 0,5/ 4-HTB-2,5-SMD WH R44	1830142	330
PTSM 0,5/ 5-HTB-2,5-SMD WH R44	1830155	330
PTSM 0,5/ 6-HTB-2,5-SMD WH R44	1830168	330
PTSM 0,5/ 7-HTB-2,5-SMD WH R44	1830171	330
PTSM 0,5/ 8-HTB-2,5-SMD WH R44	1830184	330

Ordering data

Type
2.5 mm pitch, color: white

Order No. Pcs. / Pkt.

PTSM 0,5/ 1-2,5-H SMD WH L R24	1840035	1000