

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

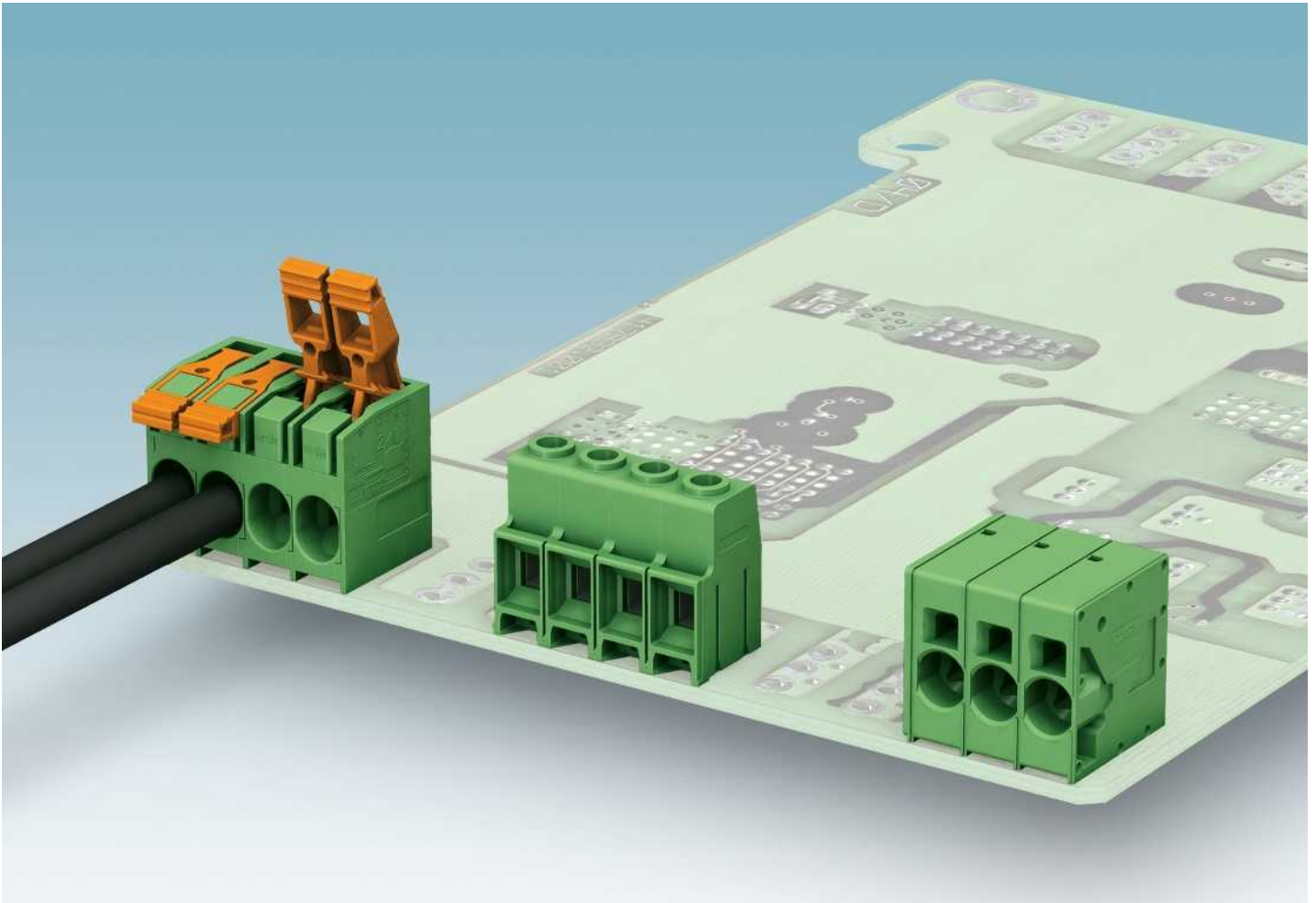
PCB terminal blocks

High-performance PCB terminal blocks provide connection options for conductors with cross sections of 0.2 to 35 mm². The conductors are easily connected using the tension sleeve principle or the spring-cage method. This, therefore, eliminates the need for complex and costly auxiliary constructions with ring cable lugs, upstream DIN rails or modular terminal block packages.

The particularly powerful screw PCB terminal block, MKDSP 25, is designed for currents up to 125 A and has unlimited UL approval up to 600 V or 1000 V according to IEC/DIN VDE. It is connected quickly and reliably to the PCB by means of wave soldering.

The PCB terminal blocks with push-in spring connection in the SPT series (Spring Print Terminal) enable quick and user-friendly conductor connection. Stranded conductors with ferrules or solid conductors can be inserted directly into the terminal point quickly and without tools.

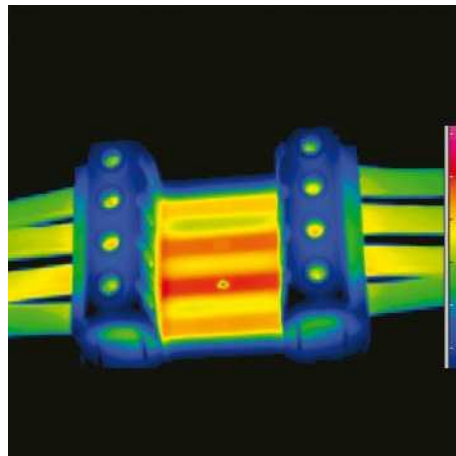
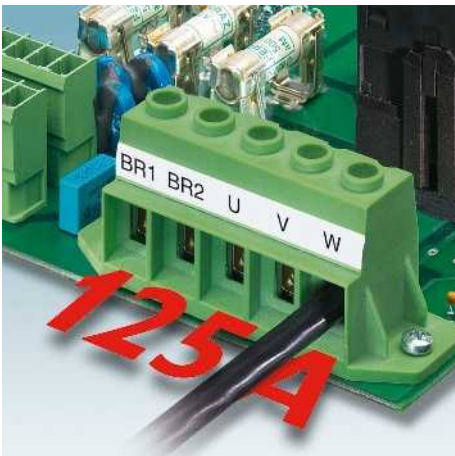
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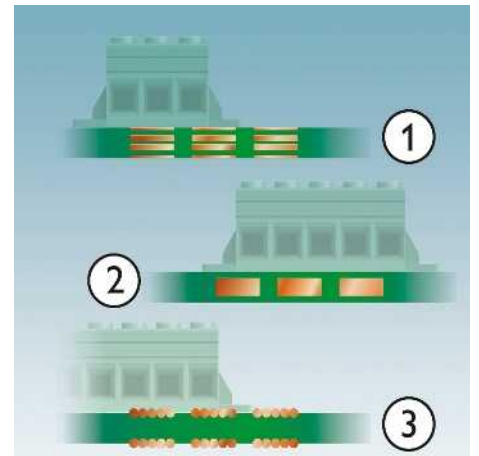
125 A via the PCB? It works!

Used in conjunction with high-current PCBs, the high-performance PCB terminal blocks support a current carrying capacity of up to 125 A.

Different PCB production technologies are providing new options for device design. The necessary functions and modules can now be grouped together on a single PCB. In this manner, expensive additional device wiring can be eliminated.



Thermographic image of a test application with 125 A



PCB production technologies

- ① = Multi-layer technology
- ② = Thick copper technology
- ③ = Wire-writing technology



Color coding

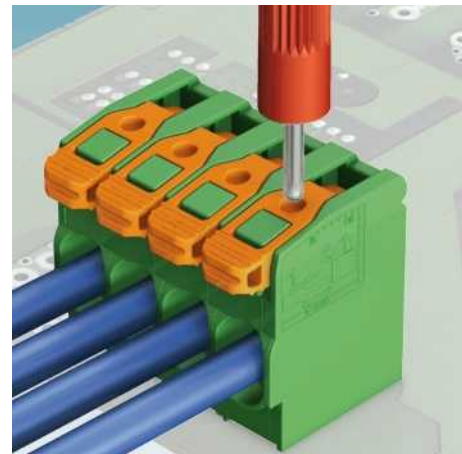
Color coding/printing, which is available as an option, enables the easy assignment of conductor/terminal points. This simplifies error-free installation of the devices to be connected. Color coding facilitates the easy and reliable implementation of work instructions such as “red conductor to red terminal point”.



UL approvals for 600 V high-current applications

The high-performance PCB terminal blocks offer 600 V UL approval for every application, even those with the smallest of dimensions. Please note that a distinction must be made here between product and device approvals. The COMBICON power flyer lists the applicable approvals for products and applications in detail.

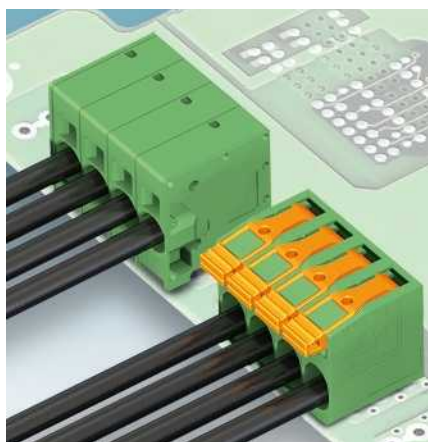
For additional information on UL certifications, see page 42.



Fast and user-friendly testing

The high-performance PCB terminal block range offers a variety of products with integrated test connections/touch connections for service work and locating errors.

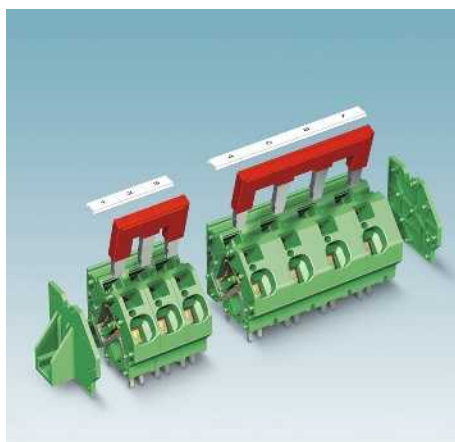
Measurements can, therefore, be taken easily without having to remove the wiring or other accessories.



Connect large cross sections quickly and easily

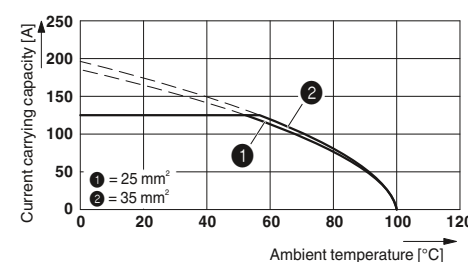
With fast connection technology, conductors of up to 16 mm² are easily connected.

- With the PL series conductor connection, you can choose between the tool-free “one-hand rocker arm” principle and push-in connection.
- The SPT series with push-in connection facilitates the fast and tool-free connection of solid or stranded conductors with ferrules of up to 16 mm².



Bridges

The fully-insulated plug-in bridges in the ZFKDS series enable potential distribution or the ground conductor to be looped through. These enable the terminal blocks to be bridged electrically as required. The bridges, which are available with various numbers of positions, are inserted in the separate bridge shafts using minimal force.



Current carrying capacity of PCB terminal blocks

Base curves are provided in the catalog so that the permitted current carrying capacity of the high-performance PCB terminal blocks can be determined. The maximum permissible current strength for a specific application can be read depending on the ambient temperature. The number of positions and the connection cross section of a conductor must be taken into account while doing so. Please also refer to the laboratory data sheets of the corresponding products. More information can be found on page 854.

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 5 series up to 41 A/6 mm²

Horizontal connection direction, pitch 6.35/7.62/9.52 mm





- PCB terminal blocks with screw connection up to 6 mm² conductor cross section
- 2 and 3-pos. terminal block bases in order to set up any number of positions
- Different pitches to fulfill different voltage requirements (6.35 mm / 7.62 mm / 9.52 mm)
- Versions with anti-rotation pins (MKDSV, recommended for 2-pos. connections)

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Marker cards SK 6,2/3,8 or SK 7,5/3,8 or SK 5 WH:REEL	799

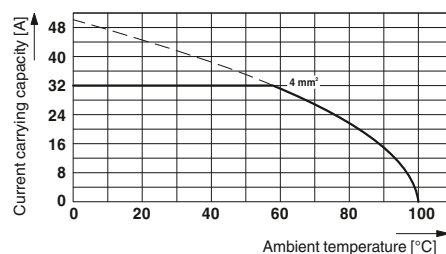
Current carrying capacity curve

Type: MKDS 5/2-6,35 and MKDS 5/3-6,35

Test following DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]

Rated insulation voltage for pollution degree 2 [V]

Pitch [mm]

Connection capacity

Solid / stranded [mm²] / [mm²] / AWG

Stranded with ferrules without plastic sleeve [mm²]

Stranded with ferrules with plastic sleeve [mm²]

Multi-conductor connection capacity (two conductors with the same cross section)

Solid / stranded [mm²]

Stranded with ferrules without plastic sleeve [mm²]

Stranded with TWIN ferrule with plastic sleeve [mm²]

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]

Screw thread

Tightening torque [Nm]

Type of insulation material / insulation material group

Inflammability class according to UL 94

Drill hole diameter / pin dimensions [mm]

MKDS 5/...6,35

32¹⁾ / 6

630

6.35

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

0.2 - 1.5 / 0.2 - 1.5

0.25 - 0.75

0.5 - 2.5

III / 3 III / 2 II / 2

500 630 1000

6 6 6

B C D

300 - 300

30 - 10

B C D

300 - 300

10 - 10

28 - 10 - 28 - 10

8

M3

0.5 - 0.6

PA / I

V0

1.3 / 0.9 x 0.9 mm

MKDS 5/ ...7,62

32¹⁾ / 6

630

7.62

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

0.2 - 1.5 / 0.2 - 1.5

0.25 - 0.75

0.5 - 2.5

III / 3 III / 2 II / 2

500 630 1000

6 6 6

B C D

300 - 300

30 - 10

B C D

300 - 300

- - -

- - -

8

M3

0.5 - 0.6

PA / I

V0

1.3 / 0.9 x 0.9 mm

MKDS 5/...9,52

32¹⁾ / 6

1000

9.52

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

0.2 - 1.5 / 0.2 - 1.5

0.25 - 0.75

0.5 - 2.5

III / 3 III / 2 II / 2

690 1000 1000

6 6 6

B C D

300 300 600

30 30 5

30 - 10 30 - 10 30 - 10

B C D

300 300 -

30 30 -

28 - 10 28 - 10 -

8

M3

0.5 - 0.6

PA / I

V0

1.3 / 0.9 x 0.9 mm

No. of pos. Dim. a [mm]

2 6.35

3 12.70

2 6.35

3 12.70

2 7.62

3 15.24

2 7.62

3 15.24

2 9.52

3 19.04

2 9.52

3 19.04

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 5 series up to 41 A/6 mm²



6.35 mm pitch



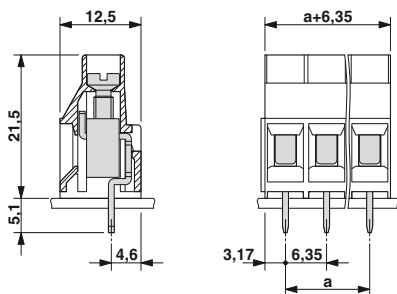
7.62 mm pitch



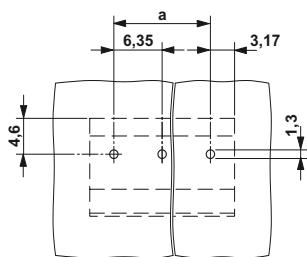
9.52 mm pitch



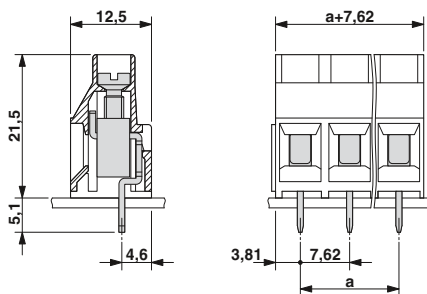
Dimensional drawing



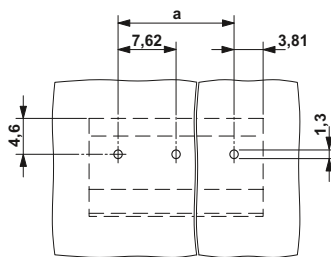
Drilling diagram



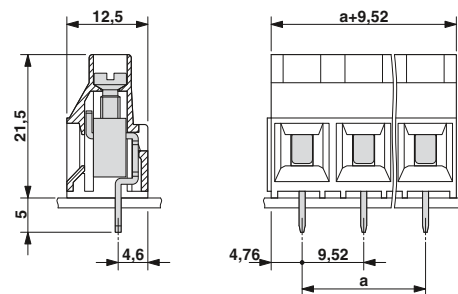
Dimensional drawing



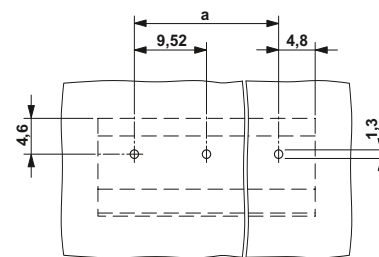
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
6.35 mm pitch, color: green		
MKDS 5/ 2-6,35	1714955	50
MKDS 5/ 3-6,35	1714968	50
6.35 mm pitch, color: green, with anti-rotation pins, for drilling plans and dimensional drawings see www.phoenixcontact.net/products .		
MKDSV 5/ 2-6,35	1710056	50
MKDSV 5/ 3-6,35	1710085	50

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 7.62 mm, color: green		
MKDS 5/ 2-7,62	1868076	50
MKDS 5/ 3-7,62	1704936	50
7.62 mm pitch, color: green, with anti-rotation pins, for drilling plans and dimensional drawings see www.phoenixcontact.net/products .		
MKDSV 5/ 2-7,62	1907131	50
MKDSV 5/ 3-7,62	1907144	50

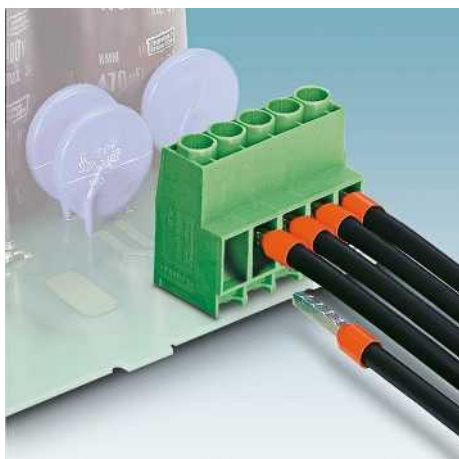
Ordering data

Type	Order No.	Pcs. / Pkt.
9.52 mm pitch, color: green		
MKDS 5/ 2-9,5	1714971	50
MKDS 5/ 3-9,5	1714984	50
9.52 mm pitch, color: green, with anti-rotation pins, for drilling plans and dimensional drawings see www.phoenixcontact.net/products .		
MKDSV 5/ 2-9,5	1710072	50
MKDSV 5/ 3-9,5	1710069	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 5 series up to 41 A/6 mm²

600 V-UL, horizontal connection direction, pitch 6.35/9.52 mm



- High-voltage MKDS 5N HV PCB terminal blocks with increased air and creepage distances
- Unrestricted 600 V UL approval, thanks to compact Z pinning (MKDS 5N HV/...ZB-6,35 and MKDS 5 HV/...-9,52-Z)

MKDS 5 HV/...-9,52...



- 2 and 3-pos. terminal block bases in order to set up any number of positions
- Versions with anti-rotation pins (MKDSV, recommended for 2-pos. connections)

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Marker cards SK 6,2/3,8 or SK 5,0 WH:REEL	799

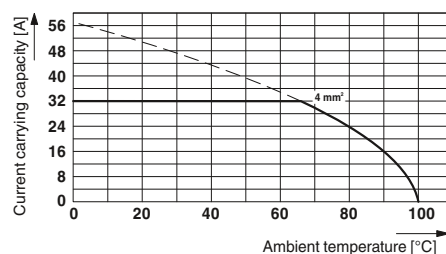
Current carrying capacity curve

Type: MKDS 5 HV/2-9,52 and MKDS 5 HV/3-9,52

Test following DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]

Rated insulation voltage for pollution degree 2 [V]

Pitch [mm]

Connection capacity

Solid / stranded [mm²] / [mm²] / AWG

Stranded with ferrules without plastic sleeve [mm²]

Stranded with ferrules with plastic sleeve [mm²]

Multi-conductor connection capacity (two conductors with the same cross section)

Solid / stranded [mm²]

Stranded with ferrules without plastic sleeve [mm²]

Stranded with TWIN ferrule with plastic sleeve [mm²]

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]

Screw thread

Tightening torque [Nm]

Type of insulation material / insulation material group

Inflammability class according to UL 94

Drill hole diameter / pin dimensions [mm]

MKDS 5N HV/ ...-ZB-6,35

41¹⁾ / 6

1000

6.35

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

0.25 - 4

0.2 - 1.5 / 0.2 - 1.5

0.25 - 0.75

0.5 - 2.5

III / 3 III / 2 II / 2

800 1000 1000

8 8 8

B C D

600 600 -

30 30 -

30 - 10 30 - 10 -

B C D

- - -

- - -

- - -

- - -

8

M3

0.5 - 0.6

PA / I

V0

1.3 / 0.9 x 0.9 mm

MKDS 5 HV/ ...-9,52

32¹⁾ / 6

1000

9.52

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

0.25 - 4

0.2 - 1.5 / 0.2 - 1.5

0.25 - 0.75

0.5 - 2.5

III / 3 III / 2 II / 2

800 1000 1000

8 8 6

B C D

300 300 600

30 30 5

30 - 10 30 - 10 30 - 10

B C D

- - -

- - -

- - -

8

M3

0.5 - 0.6

PA / I

V0

1.3 / 0.9 x 0.9 mm

MKDS 5 HV/ ...-9,52-Z

32¹⁾ / 6

1000

9.52

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

0.25 - 4

0.2 - 1.5 / 0.2 - 1.5

0.25 - 0.75

0.5 - 2.5

III / 3 III / 2 II / 2

690 1000 1000

8 8 6

B C D

600 600 -

30 30 -

30 - 10 30 - 10 -

B C D

- - -

- - -

- - -

8

M3

0.5 - 0.6

PA / I

V0

1.3 / 0.9 x 0.9 mm

No. of pos. Dim. a [mm]

2 6.35

3 12.70

4 19.05

5 25.40

6 31.75

7 38.10

8 44.45

9 50.80

10 57.15

11 63.50

12 69.85

2 9.52

3 19.04

2 9.52

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 5 series up to 41 A/6 mm²



Z pinning, 600 V UL approval,
6.35 mm pitch



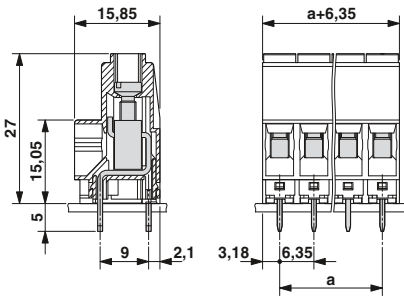
Linear pinning, 300 V UL approval,
9.52 mm pitch



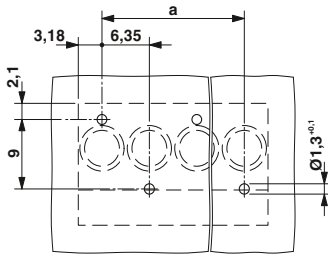
Z pinning, 600 V UL approval,
9.52 mm pitch



Dimensional drawing



Drilling diagram

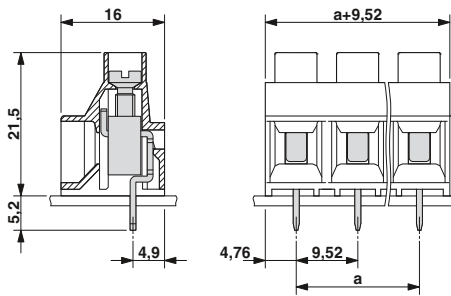


Ordering data

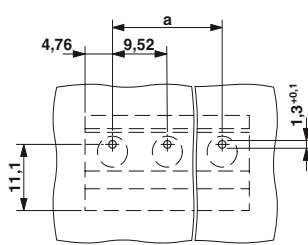
Type	Order No.	Pcs. / Pkt.
6.35 mm pitch, color: green		
MKDS 5N HV/ 2-ZB-6,35	1777545	50
MKDS 5N HV/ 3-ZB-6,35	1777558	50
MKDS 5N HV/ 4-ZB-6,35	1777561	50
MKDS 5N HV/ 5-ZB-6,35	1777574	50
MKDS 5N HV/ 6-ZB-6,35	1777587	50
MKDS 5N HV/ 7-ZB-6,35	1777590	50
MKDS 5N HV/ 8-ZB-6,35	1777600	50
MKDS 5N HV/ 9-ZB-6,35	1777613	50
MKDS 5N HV/10-ZB-6,35	1777626	50
MKDS 5N HV/11-ZB-6,35	1777639	50
MKDS 5N HV/12-ZB-6,35	1777642	50



Dimensional drawing



Drilling diagram

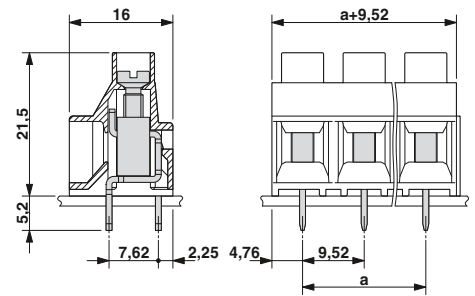


Ordering data

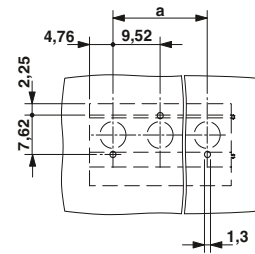
Type	Order No.	Pcs. / Pkt.
9.52 mm pitch, color: green		
MKDS 5 HV/ 2-9,52	1902547	50
MKDS 5 HV/ 3-9,52	1904150	50
9.52 mm pitch, color: green, with anti-rotation pins, for drilling plans and dimensional drawings see www.phoenixcontact.net/products .		
MKDSV 5 HV/ 2-9,52	1904147	50



Dimensional drawing



Drilling diagram



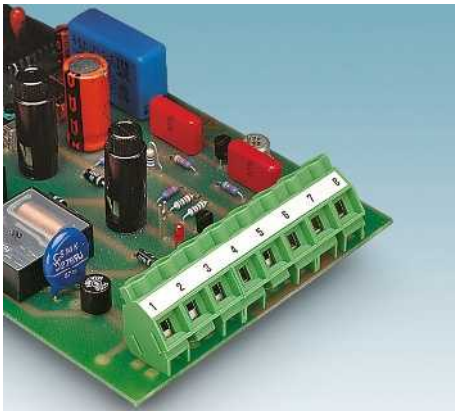
Ordering data

Type	Order No.	Pcs. / Pkt.
9.52 mm pitch, color: green		
MKDS 5 HV/ 2-9,52-Z	1907432	50
MKDS 5 HV/ 3-9,52-Z	1907429	50
9.52 mm pitch, color: green, with anti-rotation pins, for drilling plans and dimensional drawings see www.phoenixcontact.net/products .		
MKDSV 5 HV/ 2-9,52-Z	1907416	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 5 series up to 41 A/6 mm²

Angled connection direction, pitch 6.35/9.52 mm





- Connection direction of the conductor angled to the PCB (35°)
- PCB terminal blocks with screw connection up to 6 mm² conductor cross section
- 2 and 3-pos. terminal block bases in order to set up any number of positions
- Different pitches to fulfill different voltage requirements (6.35 mm/9.52 mm)

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

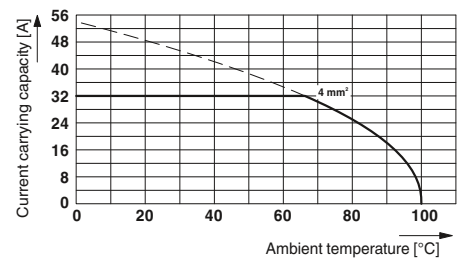
1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Marker cards SK 6,2/3,8 or SK 5,0 WH:REEL	799

Current carrying capacity curve

Type: SMKDS 5/2-6,35 and SMKDS 5/3-6,35
Test following DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5



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	
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]
Screw thread	
Tightening torque	[Nm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

SMKDS 5/ ...-6,35

Rated current / conductor cross section	32 ¹⁾ / 6
Rated insulation voltage for pollution degree 2	630
Pitch	6.35
Connection capacity	
Solid / stranded	0.2 - 6 / 0.2 - 4 / 24 - 10
Stranded with ferrules without plastic sleeve	0.25 - 4
Stranded with ferrules with plastic sleeve	0.25 - 4
Multi-conductor connection capacity (two conductors with the same cross section)	
Solid / stranded	0.2 - 1.5 / 0.2 - 1.5
Stranded with ferrules without plastic sleeve	0.25 - 0.75
Stranded with TWIN ferrule with plastic sleeve	0.5 - 2.5
Insulation coordination	
Surge voltage category / pollution degree	III / 3 III / 2 II / 2
Rated insulation voltage	500 630 1000
Rated surge voltage	6 6 6
Approval data (UL/CUL)	B C D
Nominal voltage	250 - 300
Nominal current	30 - 10
Connection capacity AWG	30 - 10 - 30 - 10
Approval data (CSA)	B C D
Nominal voltage	300 - 300
Nominal current	10 - 10
Connection capacity AWG	28 - 10 - 28 - 10
General data	
Stripping length	8
Screw thread	M3
Tightening torque	0.5 - 0.6
Type of insulation material / insulation material group	PA / I
Inflammability class according to UL 94	V2
Drill hole diameter / pin dimensions	1.3 / 0.9 x 0.9 mm

SMKDS 5/ ...-9,5

Rated current / conductor cross section	32 ¹⁾ / 6
Rated insulation voltage for pollution degree 2	1000
Pitch	9.52
Connection capacity	
Solid / stranded	0.2 - 6 / 0.2 - 4 / 24 - 10
Stranded with ferrules without plastic sleeve	0.25 - 4
Stranded with ferrules with plastic sleeve	0.25 - 4
Multi-conductor connection capacity (two conductors with the same cross section)	
Solid / stranded	0.2 - 1.5 / 0.2 - 1.5
Stranded with ferrules without plastic sleeve	0.25 - 0.75
Stranded with TWIN ferrule with plastic sleeve	0.5 - 2.5
Insulation coordination	
Surge voltage category / pollution degree	III / 3 III / 2 II / 2
Rated insulation voltage	690 1000 1000
Rated surge voltage	6 6 6
Approval data (UL/CUL)	B C D
Nominal voltage	250 300 -
Nominal current	30 30 -
Connection capacity AWG	30 - 10 30 - 10 -
Approval data (CSA)	B C D
Nominal voltage	300 300 -
Nominal current	30 30 -
Connection capacity AWG	28 - 10 28 - 10 -
General data	
Stripping length	8
Screw thread	M3
Tightening torque	0.5 - 0.6
Type of insulation material / insulation material group	PA / I
Inflammability class according to UL 94	V2
Drill hole diameter / pin dimensions	1.3 / 0.9 x 0.9 mm

No. of pos.	Dim. a [mm]
2	6.35
3	12.70
2	9.52
3	19.04



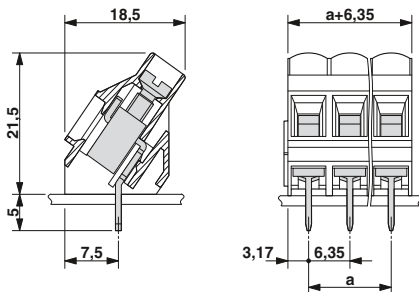
6.35 mm pitch,
35° angled connection direction



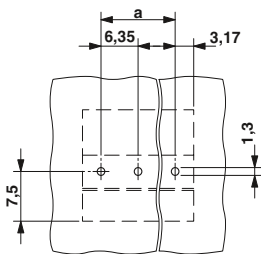
9.52 mm pitch,
35° angled connection direction



Dimensional drawing



Drilling diagram

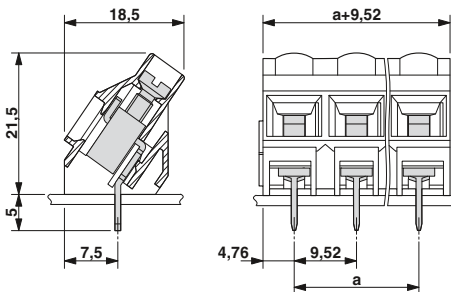


Ordering data

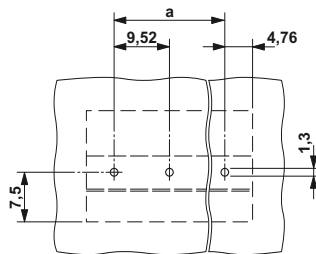
Type	Order No.	Pcs. / Pkt.
6.35 mm pitch, color: green		
SMKDS 5/ 2-6,35	1720033	50
SMKDS 5/ 3-6,35	1720046	50



Dimensional drawing



Drilling diagram



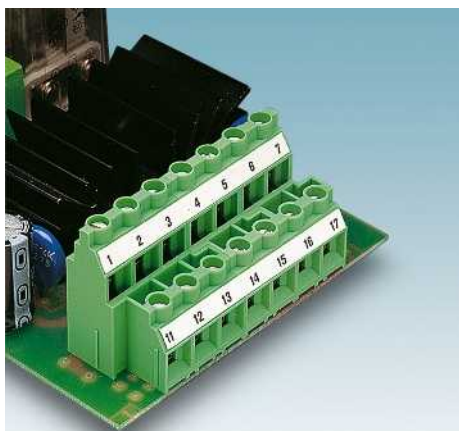
Ordering data

Type	Order No.	Pcs. / Pkt.
9.52 mm pitch, color: green		
SMKDS 5/ 2-9,5	1720017	50
SMKDS 5/ 3-9,5	1720020	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 5 series up to 41 A/6 mm²

Double-level design, pitch 6.35/9.52 mm





- Double-level PCB terminal blocks with a screw connection up to 6 mm² conductor cross section
- Different pitches to fulfill different voltage requirements (6.35 mm/9.52 mm)
- 2 and 3-pos. terminal block bases in order to set up any number of positions
- Lateral offset of terminal points for better accessibility of cable funnels

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

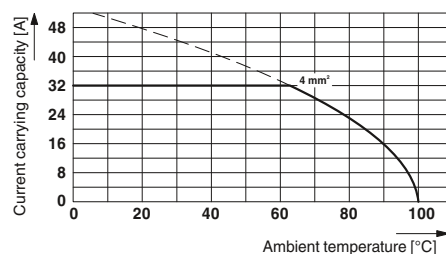
1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Marker cards SK 6,2/3,8 or SK 5,0 WH:REEL	799

Current carrying capacity curve

Type: MKKDS 5/2-6,35 and MKKDS 5/3-6,35
Test following DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5



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	
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]
Screw thread	
Tightening torque	[Nm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

MKKDS 5/ ...-6,35

Rated current / conductor cross section	32 ¹⁾ / 6
Rated insulation voltage for pollution degree 2	630
Pitch	6.35
Connection capacity	
Solid / stranded	0.2 - 6 / 0.2 - 4 / 24 - 10
Stranded with ferrules without plastic sleeve	0.25 - 2.5
Stranded with ferrules with plastic sleeve	0.25 - 4
Multi-conductor connection capacity (two conductors with the same cross section)	
Solid / stranded	0.2 - 1.5 / 0.2 - 1.5
Stranded with ferrules without plastic sleeve	0.25 - 0.75
Stranded with TWIN ferrule with plastic sleeve	0.5 - 2.5
Insulation coordination	
Surge voltage category / pollution degree	III / 3 III / 2 II / 2
Rated insulation voltage	500 630 1000
Rated surge voltage	6 6 6
Approval data (UL/CUL)	B C D
Nominal voltage	300 - - 300
Nominal current	30 - - 10
Connection capacity AWG	30 - 10 - - 30 - 10
Approval data (CSA)	B C D
Nominal voltage	300 - - 300
Nominal current	10 - - 10
Connection capacity AWG	28 - 10 - - 28 - 10
General data	
Stripping length	8
Screw thread	M3
Tightening torque	0.5 - 0.6
Type of insulation material / insulation material group	PA / I
Inflammability class according to UL 94	V0
Drill hole diameter / pin dimensions	1.3 / 0.9 x 0.9 mm

MKKDS 5/ ...-9,5

Rated current / conductor cross section	32 ¹⁾ / 6
Rated insulation voltage for pollution degree 2	1000
Pitch	9.52
Connection capacity	
Solid / stranded	0.2 - 6 / 0.2 - 4 / 24 - 10
Stranded with ferrules without plastic sleeve	0.25 - 2.5
Stranded with ferrules with plastic sleeve	0.25 - 4
Multi-conductor connection capacity (two conductors with the same cross section)	
Solid / stranded	0.2 - 1.5 / 0.2 - 1.5
Stranded with ferrules without plastic sleeve	0.25 - 0.75
Stranded with TWIN ferrule with plastic sleeve	0.5 - 2.5
Insulation coordination	
Surge voltage category / pollution degree	III / 3 III / 2 II / 2
Rated insulation voltage	690 1000 1000
Rated surge voltage	6 6 6
Approval data (UL/CUL)	B C D
Nominal voltage	300 300 600
Nominal current	30 30 5
Connection capacity AWG	30 - 10 30 - 10 30 - 10
Approval data (CSA)	B C D
Nominal voltage	300 300 -
Nominal current	30 30 -
Connection capacity AWG	28 - 10 28 - 10 -
General data	
Stripping length	8
Screw thread	M3
Tightening torque	0.5 - 0.6
Type of insulation material / insulation material group	PA / I
Inflammability class according to UL 94	V2
Drill hole diameter / pin dimensions	1.3 / 0.9 x 0.9 mm

No. of pos.	Dim. a [mm]
2	6.35
3	12.70
2	9.52
3	19.04



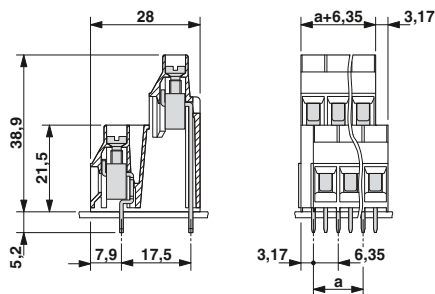
6.35 mm pitch,
double-level PCB terminal block



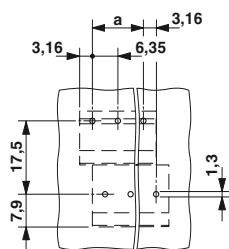
9.52 mm pitch,
double-level PCB terminal block



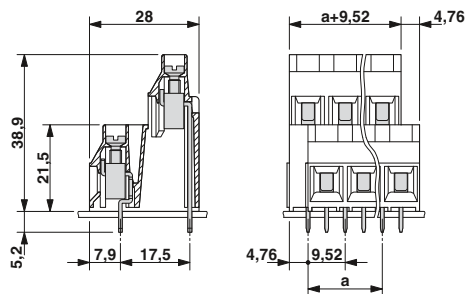
Dimensional drawing



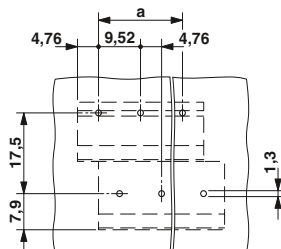
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
6.35 mm pitch, color: green		
MKKDS 5/ 2-6,35	1719031	50
MKKDS 5/ 3-6,35	1719044	50

Ordering data

Type	Order No.	Pcs. / Pkt.
9.52 mm pitch, color: green		
MKKDS 5/ 2-9,5	1719015	50
MKKDS 5/ 3-9,5	1719028	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 10 series up to 76 A/16 mm²

Horizontal connection direction, pitch 10.16/12.7 mm

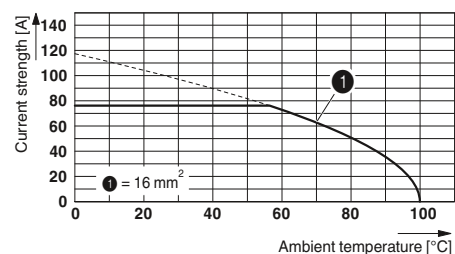


- High-capacity PCB terminal blocks with a screw connection up to 16 mm² flexible and a current carrying capacity of 76 A
- Individual adjustment of voltage requirements using RZ pitch spacers (MKDS 10 HV)
- MKDSP 10 HV...-12,7 with unrestricted 600-V-UL approval
- Integrated test connection
- Terminal block bases that can be lined up next to each other in order to set up any number of positions

Notes:
In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.
When using ferrules for 16 mm ² conductors, crimp with CRIMPFOX 16 S (see accessories).
1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories		
For all types	Type	Page
	Test plug MPS	831
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Marker strips SK 5,0 WH:REEL Order No. 0805221	801
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Crimping pliers for 10 to 16 mm ² CRIMPFOX 16 S Order No. 1207983	
Only for MKDSP 10 HV...-12,7		
	Pitch spacer, width: 2.54 mm RZ-MKDSP 10 HV-2,54 Order No. 1929672	

Current carrying capacity curve
 Type: MKDSP 10N/...-10,16
 Tested in accordance with DIN EN 60512-5-2:2003-01
 Reduction factor = 1
 No. of positions: 5



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	
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]
Screw thread	
Tightening torque	[Nm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

MKDSP 10N/ ...-10,16			MKDSP 10HV/ ...-10,16			MKDSP 10HV/ ...-12,7		
76 ¹⁾ / 16			76 ¹⁾ / 16			76 ¹⁾ / 16		
1000			1000			1000		
10.16			10.16			12.7		
0.5 - 16 / 0.5 - 16 / 20 - 6			0.5 - 16 / 0.5 - 16 / 20 - 6			0.5 - 16 / 0.5 - 16 / 20 - 6		
0.5 - 16			0.5 - 16			0.5 - 16		
0.5 - 16			0.5 - 16			0.5 - 16		
0.5 - 4 / 0.5 - 4			0.5 - 4 / 0.5 - 4			0.5 - 4 / 0.5 - 4		
0.5 - 2.5			0.5 - 2.5			0.5 - 2.5		
0.5 - 6			0.5 - 6			0.5 - 6		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
690	1000	1000	690	1000	1000	1000	1000	1000
8	8	6	8	8	6	8	8	6
B	C	D	B	C	D	B	C	D
300	300	600	300	300	600	600	600	-
60	60	5	60	60	5	60	60	-
20 - 6	20 - 6	20 - 6	20 - 6	20 - 6	20 - 6	20 - 6	20 - 6	-
B	C	D	B	C	D	B	C	D
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
10			10			10		
M4			M4			M4		
1.2 - 1.5			1.2 - 1.5			1.2 - 1.5		
PA / I			PA / I			PA / I		
V0			V0			V0		
1.5 / 1 x 0.9 mm			1.5 / 1 x 0.9 mm			1.5 / 1 x 0.9 mm		

No. of pos.	Dim. a [mm]
2	10.16
3	20.32
2	10.16
3	20.32
2	12.70
3	25.40

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 10 series up to 76 A/16 mm²



10.16 mm pitch, 300 V UL approval



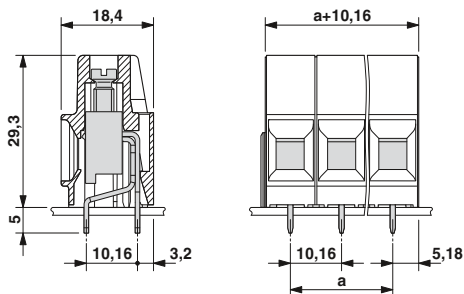
10.16 mm pitch, 300 V UL approval



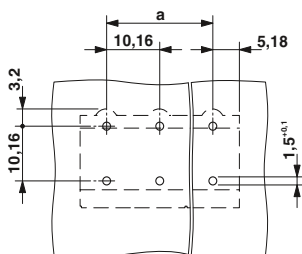
12.7 mm pitch, 600 V UL approval



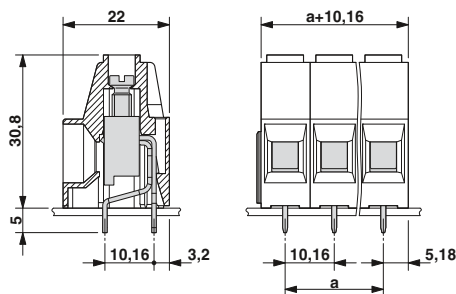
Dimensional drawing



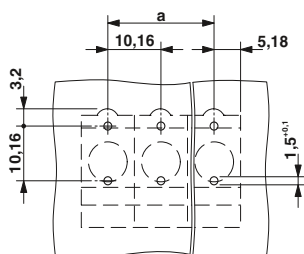
Drilling diagram



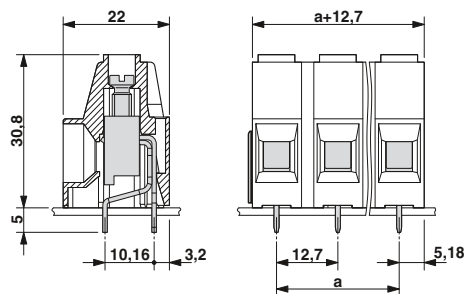
Dimensional drawing



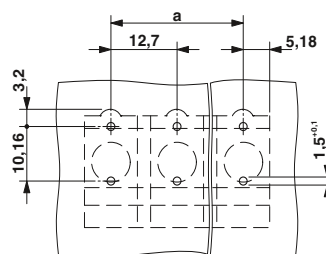
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 10.16 mm, color: green		
MKDSP 10N/ 2-10,16	1773976	50
MKDSP 10N/ 3-10,16	1774137	50

Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 10.16 mm, color: green		
MKDSP 10HV/ 2-10,16	1929517	50
MKDSP 10HV/ 3-10,16	1929520	50

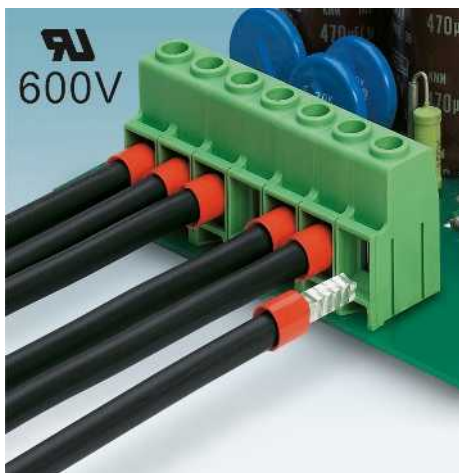
Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 12.7 mm, color: green		
MKDSP 10HV/ 2-12,7	1929533	50
MKDSP 10HV/ 3-12,7	1929546	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 10 series up to 76 A/16 mm²

600 V-UL, horizontal connection direction, pitch 10.16 mm



- Compact high-capacity PCB terminal blocks with a screw connection up to 16 mm², stranded, and a current carrying capacity of 76 A
- Unrestricted 600-V-UL approval, thanks to zig-zag pinning
- Pitch 10.16 mm
- MKDS 10 HV/...-B-10,16 with a solder pin at the back; MKDS 10 HV/...-F-10,16 with a solder pin in the front
- Terminal block bases that can be lined up next to each other in order to set up any number of positions

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

When using ferrules for 16 mm² conductors, crimp with CRIMPFOX 16 S (see accessories).

When aligning single PCB terminal blocks with identical pinning, other rated insulation voltages can occur.

¹⁾ Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Marker strips SK 5,0 WH:REEL Order No. 0805221	801
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Crimping pliers for 10 to 16 mm ² CRIMPFOX 16 S Order No. 1207983	

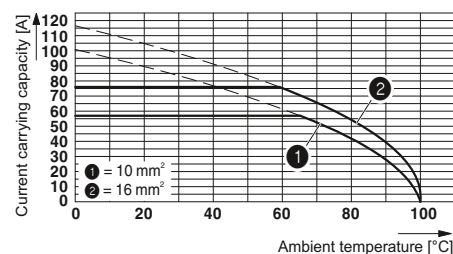
Current carrying capacity curve

Type: MKDS 10 HV/...-ZB-10,16

Tested in accordance with DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions = 5



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]

Rated insulation voltage for pollution degree 2 [V]

Pitch [mm]

Connection capacity

Solid / stranded [mm²] / [mm²] / AWG

Stranded with ferrules without plastic sleeve [mm²]

Stranded with ferrules with plastic sleeve [mm²]

Multi-conductor connection capacity (two conductors with the same cross section)

Solid / stranded [mm²]

Stranded with ferrules without plastic sleeve [mm²]

Stranded with TWIN ferrule with plastic sleeve [mm²]

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]

Screw thread

Tightening torque [Nm]

Type of insulation material / insulation material group

Inflammability class according to UL 94

Drill hole diameter / pin dimensions [mm]

MKDS 10 HV/ ...-ZB-10,16

76¹⁾ / 16

1000

10.16

0.5 - 16 / 0.5 - 16 / 20 - 6

0.5 - 16

0.5 - 16

0.5 - 6 / 0.5 - 6

0.5 - 4

0.5 - 6

III / 3 III / 2 II / 2

800 1000 1000

8 8 8

B C D

600 600 -

60 60 -

20 - 6 20 - 6 -

B C D

- - -

- - -

- - -

10

M4

1.2 - 1.5

PA / I

V0

1.5 / 1 x 0.9 mm

MKDS 10 HV/ 1-B-10,16

76¹⁾ / 16

400

10.16

0.5 - 16 / 0.5 - 16 / 20 - 6

0.5 - 16

0.5 - 16

0.5 - 6 / 0.5 - 6

0.5 - 4

0.5 - 6

III / 3 III / 2 II / 2

400 400 800

4 4 4

B C D

600 600 -

60 60 -

20 - 6 20 - 6 -

B C D

- - -

- - -

- - -

10

M4

1.2 - 1.5

PA / I

V0

1.5 / 1 x 0.9 mm

MKDS 10 HV/ 1-F-10,16

76¹⁾ / 16

400

10.16

0.5 - 16 / 0.5 - 16 / 20 - 6

0.5 - 16

0.5 - 16

0.5 - 6 / 0.5 - 6

0.5 - 4

0.5 - 6

III / 3 III / 2 II / 2

400 400 800

4 4 4

B C D

600 600 -

60 60 -

20 - 6 20 - 6 -

B C D

- - -

- - -

- - -

10

M4

1.2 - 1.5

PA / I

V0

1.5 / 1 x 0.9 mm

No. of pos.

Dim. a [mm]

1

2 10.16

3 20.32

4 30.48

5 40.64

6 50.80

7 60.96

8 71.12

9 81.28

10 91.44

11 101.60

12 111.76

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDS 10 series up to 76 A/16 mm²



Z pinning, 600 V UL approval



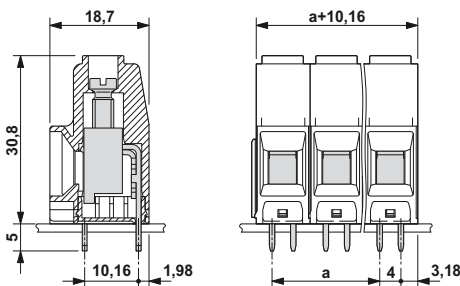
Single PCB terminal block with solder pin to the rear, 600 V UL approval



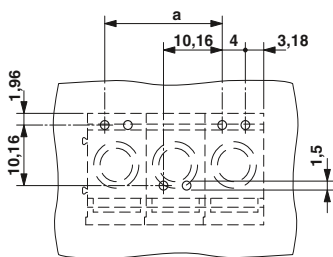
Single PCB terminal block with solder pin to the front, 600 V UL approval



Dimensional drawing



Drilling diagram

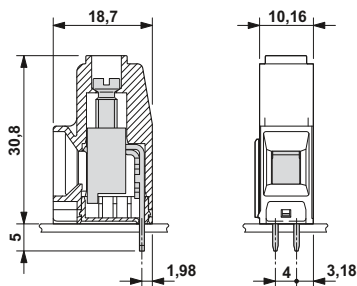


Ordering data

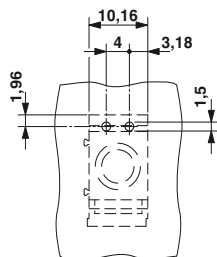
Type	Order No.	Pcs. / Pkt.
Pitch 10.16 mm, color: green		
MKDS 10 HV/ 2-ZB-10,16	1709681	50
MKDS 10 HV/ 3-ZB-10,16	1709694	50
MKDS 10 HV/ 4-ZB-10,16	1709704	50
MKDS 10 HV/ 5-ZB-10,16	1709717	50
MKDS 10 HV/ 6-ZB-10,16	1709720	50
MKDS 10 HV/ 7-ZB-10,16	1709733	50
MKDS 10 HV/ 8-ZB-10,16	1709746	50
MKDS 10 HV/ 9-ZB-10,16	1709759	50
MKDS 10 HV/10-ZB-10,16	1709762	50
MKDS 10 HV/11-ZB-10,16	1709775	50
MKDS 10 HV/12-ZB-10,16	1709788	50



Dimensional drawing



Drilling diagram

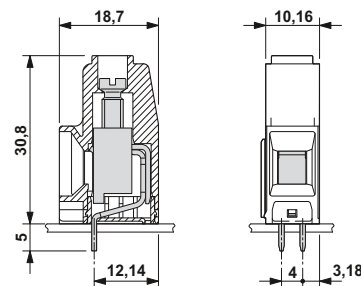


Ordering data

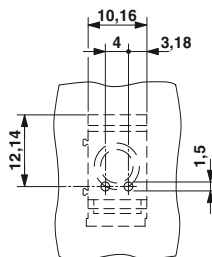
Type	Order No.	Pcs. / Pkt.
Pitch 10.16 mm, color: green		
MKDS 10 HV/ 1-B-10,16	1993776	50



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 10.16 mm, color: green		
MKDS 10 HV/ 1-F-10,16	1993763	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDSP 25 series up to 125 A/35 mm²

Horizontal connection direction, pitch 15 mm



- High-capacity PCB terminal blocks with a screw connection up to 35 mm² conductor cross section and a current carrying capacity of 125 A
- Unrestricted 600-V-UL approval
- Integrated test connection
- Version with mounting flange (-F) for safe mounting on the PCB
- Single-pos. version with a left-sided mounting flange (-FL)
- Integrated protective guide

Notes:

1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

2) 2.5 Nm = 25 mm²
4.5 Nm = 35 mm²

Accessories

For all types	Type	Page
	Test plug MPS	831
	Reducing plug RPS Order No. 0201647	831
	Screwdriver SZS 1,0 x 6,5 Order No. 1205079	
	Marker strips SK 10,0 WH:REEL Order No. 0812188	801
	Zack marker strip ZBF 15: UNBEDRUCKT	807

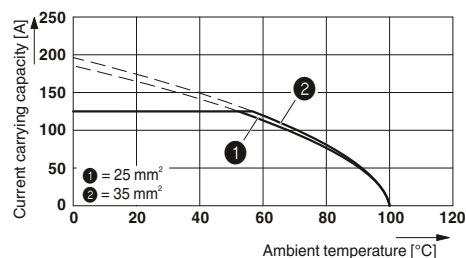
Current carrying capacity curve

Type: MKDSP 25/...-15,00

Tested in accordance with DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5



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	
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]
Screw thread	
Tightening torque	[Nm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

MKDSP 25/ ...-15,00

125 ¹⁾ / 35		
1000		
15		
0.5 - 35 / 0.5 - 25 / 20 - 2		
1 - 25		
1.5 - 25		
0.5 - 6 / 0.5 - 6		
0.5 - 4		
0.5 - 6		
III / 3	III / 2	II / 2
1000	1000	1000
8	8	8
B	C	D
600	600	-
115	115	-
20 - 2	20 - 2	-
B	C	D
-	-	-
-	-	-
-	-	-
PA / I		
V0		
1.6 / 1.2 x 1.2 mm		

MKDSP 25/ ...-15,00-F

125 ¹⁾ / 35		
1000		
15		
0.5 - 35 / 0.5 - 25 / 20 - 2		
1 - 25		
1.5 - 25		
0.5 - 6 / 0.5 - 6		
0.5 - 4		
0.5 - 6		
III / 3	III / 2	II / 2
1000	1000	1000
8	8	8
B	C	D
600	600	-
115	115	-
20 - 2	20 - 2	-
B	C	D
-	-	-
-	-	-
-	-	-
PA / I		
V0		
1.6 / 1.2 x 1.2 mm		

MKDSP 25/ 1-15,00-FL

125 ¹⁾ / 35		
1000		
15		
0.5 - 35 / 0.5 - 25 / 20 - 2		
1 - 25		
1.5 - 25		
0.5 - 6 / 0.5 - 6		
0.5 - 4		
0.5 - 6		
III / 3	III / 2	II / 2
1000	1000	1000
8	8	8
B	C	D
600	600	-
115	115	-
20 - 2	20 - 2	-
B	C	D
-	-	-
-	-	-
-	-	-
PA / I		
V0		
1.6 / 1.2 x 1.2 mm		

No. of pos.	Dim. a [mm]
1	
2	15.00
3	30.00
4	45.00
5	60.00
6	75.00
7	90.00
8	105.00
9	120.00

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with screw connection, MKDSP 25 series up to 125 A/35 mm²



Without mounting flange,
600 V UL approval



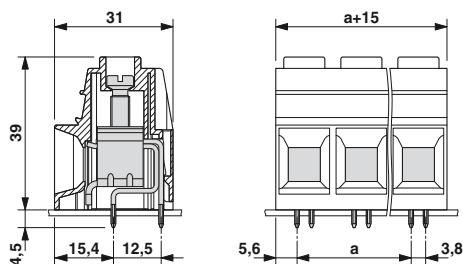
With mounting flange,
600 V UL approval



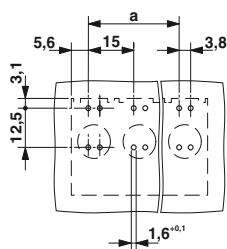
Single PCB terminal block with
mounting flange, left,
600 V UL approval



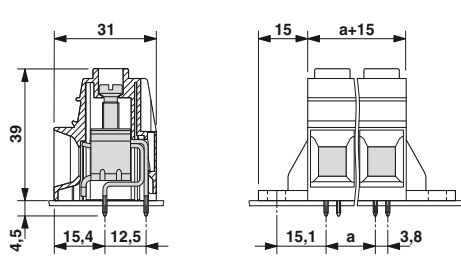
Dimensional drawing



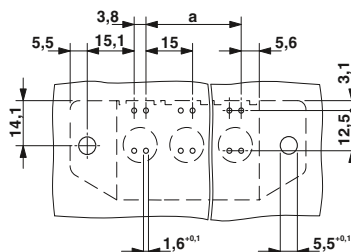
Drilling diagram



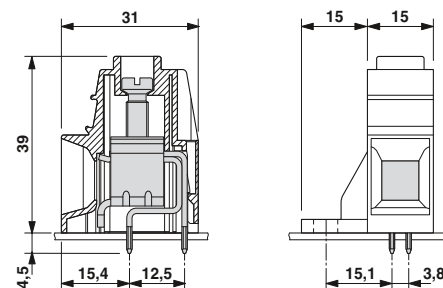
Dimensional drawing



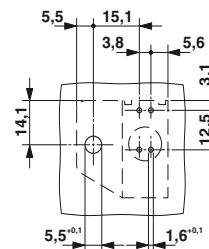
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
15 mm pitch, color: green		
MKDSP 25/ 2-15,00	1932588	25
MKDSP 25/ 3-15,00	1932591	25
MKDSP 25/ 4-15,00	1932601	25
MKDSP 25/ 5-15,00	1932614	25
MKDSP 25/ 6-15,00	1932627	25
MKDSP 25/ 7-15,00	1932630	25
MKDSP 25/ 8-15,00	1932643	25
MKDSP 25/ 9-15,00	1932656	25

Ordering data

Type	Order No.	Pcs. / Pkt.
15 mm pitch, color: green		
MKDSP 25/ 2-15,00-F	1932494	25
MKDSP 25/ 3-15,00-F	1932504	25
MKDSP 25/ 4-15,00-F	1932517	25
MKDSP 25/ 5-15,00-F	1932520	25
MKDSP 25/ 6-15,00-F	1932533	25
MKDSP 25/ 7-15,00-F	1932546	25
MKDSP 25/ 8-15,00-F	1932559	25
MKDSP 25/ 9-15,00-F	1932562	25

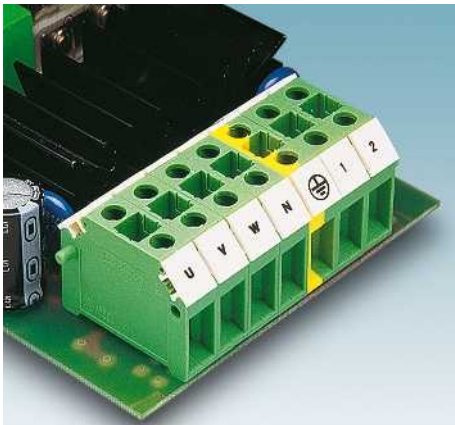
Ordering data

Type	Order No.	Pcs. / Pkt.
15 mm pitch, color: green		
MKDSP 25/ 1-15,00-FL	1932575	25

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

Special designs with screw connection, KDS 10-, Front 4 series up to 76 A/16 mm²

Feed-through PCB terminal blocks, pitch 10 mm

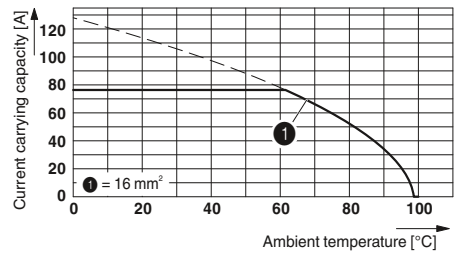


- High-capacity PCB terminal blocks with a current carrying capacity up to 76 A at the solder connection
- Can also be used as a feed-through terminal block up to 76 A
- Different solder pin geometries for greater voltage distances (KDS 10.../SO)
- Individual adjustment of voltage requirements using pitch spacers RZ
- Potential distribution possible by means of bridges

Notes:
In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.
FBI 10-10 maximum via 3 KDS 10 terminal blocks. Remove the break-out wall for bridging.
1) Higher voltages are achieved when the RZ-KDS 10 pitch spacer is inserted.
2) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories		
For all types	Type	Page
	Pitch spacer, width: 2.5 mm RZ-KDS 10 Order No. 1701065	
	Fixed bridge, 10-pos., divisible FBI 10-10 Order No. 0203276	
	Test plug PS...	831
	Test socket for PS test plugs PSB 4/7/6 Order No. 0303299	
	Zack marker strip ZB 10	805
	Screwdriver SZS 1,0 x 4,0 Order No. 1205066	

Current carrying capacity curve
Type: KDS 10
Test following DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5



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	
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]
Screw thread	
Tightening torque	[Nm]
Type of insulation material / insulation material group	
Inflammability class according to UL 94	
Drill hole diameter / pin dimensions	[mm]

KDS10			KDS10/SO			KDS10-PE		
76 ²) / 16			76 ²) / 16			76 ²) / 16		
320			630			320		
10			10			10		
0.5 - 16 / 0.5 - 10 / 20 - 6			0.5 - 16 / 0.5 - 10 / 20 - 6			0.5 - 16 / 0.5 - 10 / 20 - 6		
0.5 - 10			0.5 - 10			0.5 - 10		
0.5 - 10			0.5 - 10			0.5 - 10		
0.5 - 4 / 0.5 - 4			0.5 - 4 / 0.5 - 4			0.5 - 4 / 0.5 - 4		
0.5 - 2.5			0.5 - 2.5			0.5 - 2.5		
0.5 - 6			0.5 - 6			0.5 - 6		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
250 ¹⁾	320	630	630 ¹⁾	630	1000	250	320	630
4	4	4	6	6	6	4	4	4
B	C	D	B	C	D	B	C	D
250	300	600	250	300	600	-	-	-
65	65	5	65	65	5	-	-	-
24 - 6	24 - 6	24 - 6	24 - 6	24 - 6	24 - 6	-	-	-
B	C	D	B	C	D	B	C	D
300	300	-	300	300	-	-	-	-
65	65	-	65	65	-	-	-	-
18 - 6	18 - 6	-	18 - 6	18 - 6	-	-	-	-
12			12			12		
M4			M4			M4		
1.2 - 1.5			1.2 - 1.5			1.2 - 1.5		
PA / I			PA / I			PA / I		
V0			V0			V0		
1.4 / 1 x 0.9 mm			1.4 / 1 x 0.9 mm			1.4 / 1 x 0.9 mm		

No. of pos.
1
1
1

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

Special designs with screw connection, KDS 10-, Front 4 series up to 76 A/16 mm²



Solder pins in a row



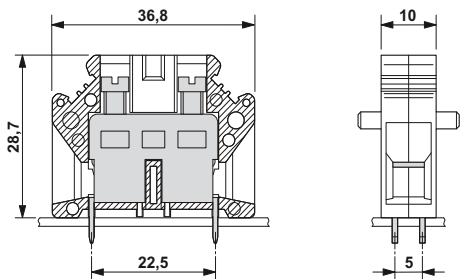
Offset solder pins



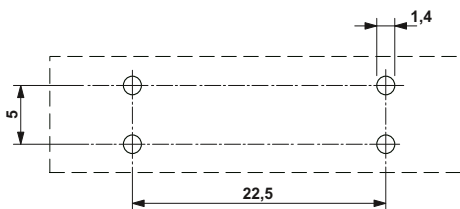
PE connection, solder pins in a row



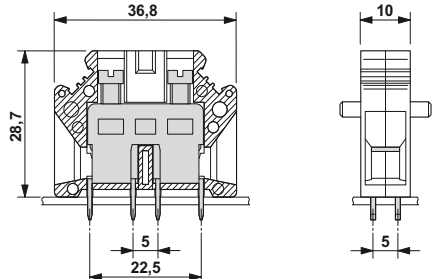
Dimensional drawing



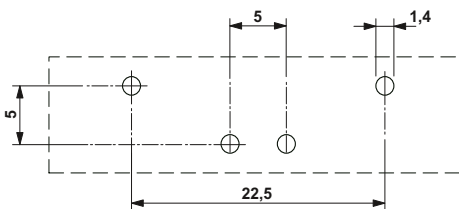
Drilling diagram



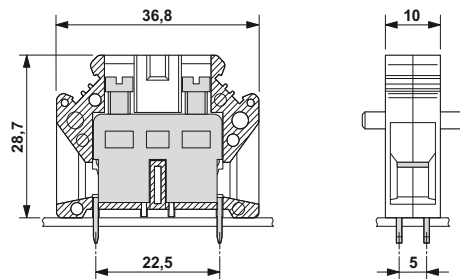
Dimensional drawing



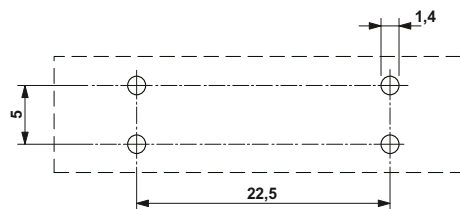
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green KDS10	1704020	50

Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green KDS10/SO	1704059	50

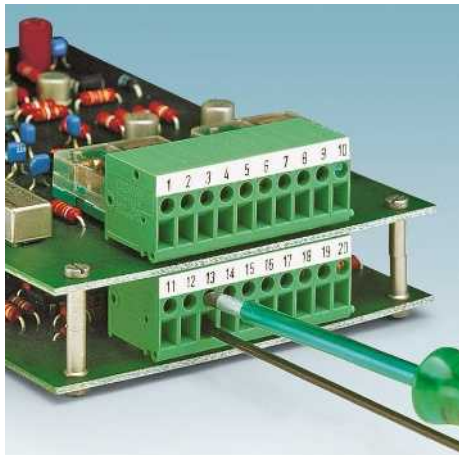
Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green-yellow KDS10-PE	1704033	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

Special designs with screw connection, KDS 10-, Front 4 series up to 76 A/16 mm²

Front PCB terminal blocks, pitch 6.35/7.62 mm



- Front screw connection terminal blocks up to 6 mm² conductor cross section
- Connection direction of the conductor: Horizontal (0° -H) or vertical (90° -V)
- A cover is necessary at the end of a terminal block row (D-FRONT 4-6,35)







Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

Additional versions and accessories for the KDS 10 series can be found on page 456.

1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
Only for KDS 10...		
	Screwdriver SZS 1,0 x 4,0 Order No. 1205066	
	Pitch spacer, width: 2.5 mm RZ-KDS 10 Order No. 1701065	
	Zack marker strip ZB 10	805
Only for FRONT 4...-6,5		
	Cover, width 1.5 mm D-FRONT 4-6,35 Order No. 1703076	
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Marker cards SK 6,2/3,8	799

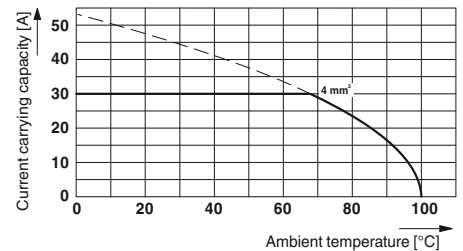
Current carrying capacity curve

Type: FRONT 4-H-6,35

Test following DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]

Rated insulation voltage for pollution degree 2 [V]

Pitch [mm]

Connection capacity

Solid / stranded [mm²] / [mm²] / AWG

Stranded with ferrules without plastic sleeve [mm²]

Stranded with ferrules with plastic sleeve [mm²]

Multi-conductor connection capacity (two conductors with the same cross section)

Solid / stranded [mm²]

Stranded with ferrules without plastic sleeve [mm²]

Stranded with TWIN ferrule with plastic sleeve [mm²]

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]

Screw thread

Tightening torque [Nm]

Type of insulation material / insulation material group

Inflammability class according to UL 94

Drill hole diameter / pin dimensions [mm]

KDS10-PE/SO			FRONT 4-H-6,35			FRONT 4-V-6,35		
76 ¹⁾ / 16			32 ¹⁾ / 6			32 ¹⁾ / 6		
630			320			320		
10			6.35			6.35		
0.5 - 16 / 0.5 - 10 / 20 - 6			0.5 - 6 / 0.5 - 4 / 20 - 10			0.5 - 6 / 0.5 - 4 / 20 - 10		
0.5 - 10			0.5 - 4			0.5 - 4		
0.5 - 10			0.5 - 4			0.5 - 4		
0.5 - 4 / 0.5 - 4			0.5 - 1.5 / 0.5 - 1.5			0.5 - 1.5 / 0.5 - 1.5		
0.5 - 2.5			0.25 - 1			0.25 - 1		
0.5 - 6			0.5 - 1			0.5 - 1		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
630	630	1000	320	320	630	320	320	630
4	4	4	4	4	4	4	4	4
B	C	D	B	C	D	B	C	D
-	-	-	300	-	300	300	-	300
-	-	-	30	-	30	30	-	30
-	-	-	24 - 10	-	24 - 10	24 - 10	-	24 - 10
B	C	D	B	C	D	B	C	D
-	-	-	300	-	300	300	-	300
-	-	-	30	-	10	30	-	10
-	-	-	22 - 10	-	22 - 10	22 - 10	-	22 - 10
12			14			14		
M4			M3			M3		
1.2 - 1.5			0.5 - 0.6			0.5 - 0.6		
PA / I			PA / I			PA / I		
V0			V2			V2		
1.4 / 1 x 0.9 mm			1.3 / 1 x 0.8 mm			1.3 / 1 x 0.8 mm		

No. of pos.

1

1

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

Special designs with screw connection, KDS 10-, Front 4 series up to 76 A/16 mm²



Feed-through terminal block as PE connection, offset solder pins



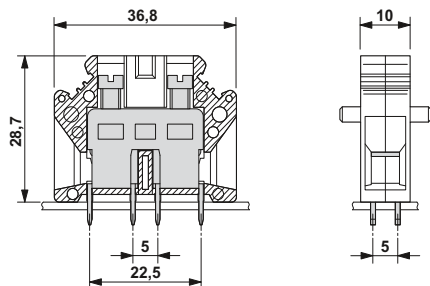
Individual PCB terminal block, horizontal connection direction



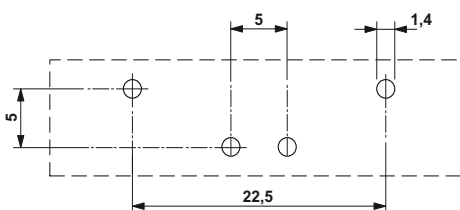
Individual PCB terminal block, vertical connection direction



Dimensional drawing



Drilling diagram

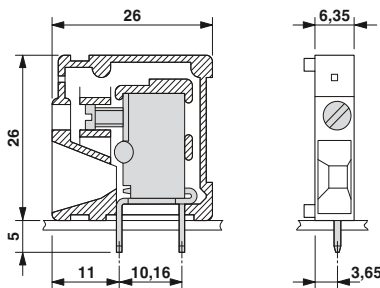


Ordering data

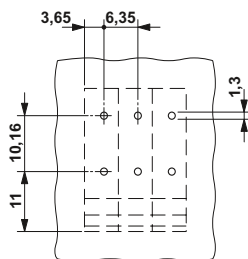
Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green-yellow KDS10-PE/SO	1704062	50



Dimensional drawing



Drilling diagram

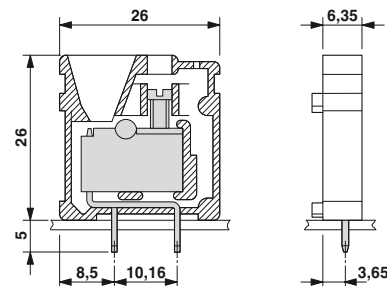


Ordering data

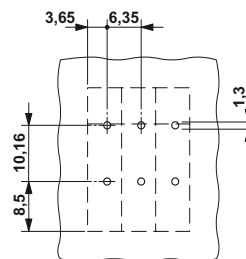
Type	Order No.	Pcs. / Pkt.
6.35 mm pitch, color: green FRONT 4-H-6,35	1703050	50



Dimensional drawing



Drilling diagram



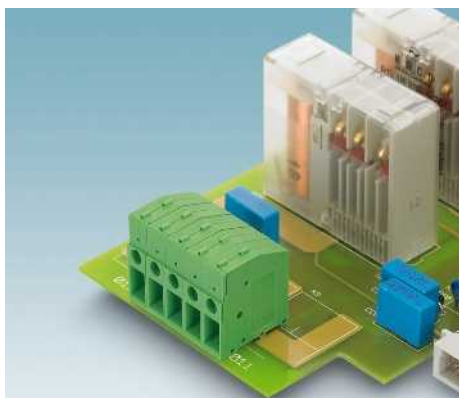
Ordering data

Type	Order No.	Pcs. / Pkt.
6.35 mm pitch, color: green FRONT 4-V-6,35	1703063	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

Special designs with screw connection, KDS 10-, Front 4 series up to 76 A/16 mm²

Front PCB terminal blocks, pitch 6.35/7.62 mm






- Front screw connection terminal blocks up to 6 mm² conductor cross section
- Connection direction of the conductor: horizontal (0° -H) or vertical (90° -V)
- In the horizontal version, pitch spacers (RZ) are available for adjusting insulation distances

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

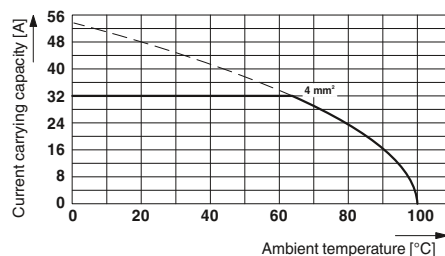
1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZS 0,6 x 3,5 Order No. 1205053	
	Pitch spacer, width: 5.08 mm RZ-5,08-FRONT 4-H-7,62 Order No. 1904011	
	Marker cards SK 7,62/3,8	799

Current carrying capacity curve

Type: FRONT 4-H-7,62
Test following DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]
Rated insulation voltage for pollution degree 2 [V]

FRONT 4-H-7,62

FRONT 4-V-7,62

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		
Rated insulation voltage [V]		
Rated surge voltage [kV]		
Approval data (UL/CUL) Use Group		
Nominal voltage [V]		
Nominal current [A]		
Connection capacity AWG		
Approval data (CSA) Use Group		
Nominal voltage [V]		
Nominal current [A]		
Connection capacity AWG		
General data		
Stripping length [mm]		
Screw thread		
Tightening torque [Nm]		
Type of insulation material / insulation material group		
Inflammability class according to UL 94		
Drill hole diameter / pin dimensions [mm]		

32¹⁾ / 6
630

32¹⁾ / 6
630

7.62

7.62

0.5 - 6 / 0.5 - 4 / 20 - 10

0.5 - 6 / 0.5 - 4 / 20 - 10

0.5 - 4

0.5 - 4

0.5 - 4

0.5 - 4

0.5 - 1.5 / 0.5 - 1.5

0.5 - 1.5 / 0.5 - 1.5

0.25 - 1

0.25 - 1

0.5 - 1

0.5 - 1

III / 3 III / 2 II / 2

III / 3 III / 2 II / 2

500 630 1000

500 630 1000

6 6 6

6 6 6

B C D

B C D

300 - 300

300 - 300

30 - 30

30 - 30

24 - 10 - 24 - 10

24 - 10 - 24 - 10

B C D

B C D

300 - 300

300 - 300

30 - 10

30 - 10

22 - 10 - 22 - 10

22 - 10 - 22 - 10

14

14

M3

M3

0.5 - 0.6

0.5 - 0.6

PA / I

PA / I

V0

V0

1.3 / 1 x 0.8 mm

1.3 / 1 x 0.8 mm

No. of pos.

1

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

Special designs with screw connection, KDS 10-, Front 4 series up to 76 A/16 mm²



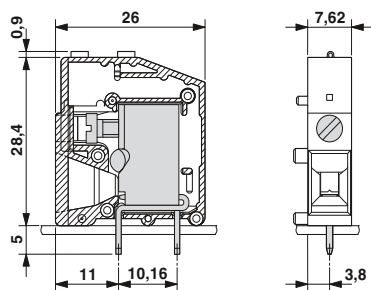
Individual PCB terminal block,
horizontal connection direction



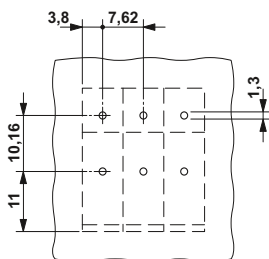
Individual PCB terminal block,
vertical connection direction



Dimensional drawing



Drilling diagram

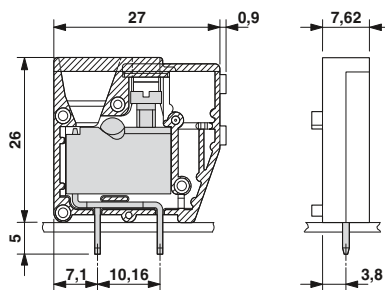


Ordering data

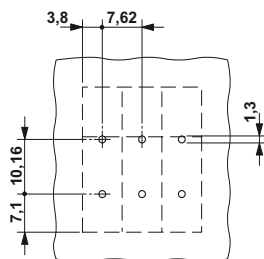
Type	Order No.	Pcs. / Pkt.
Pitch 7.62 mm, color: green		
FRONT 4-H-7,62	1703034	50



Dimensional drawing



Drilling diagram



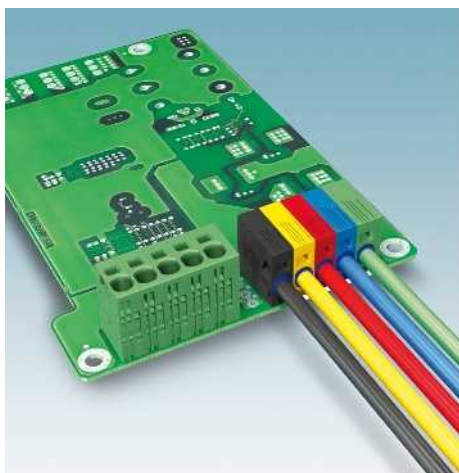
Ordering data

Type	Order No.	Pcs. / Pkt.
Pitch 7.62 mm, color: green		
FRONT 4-V-7,62	1703021	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

Horizontal connection direction, pitch 7.5 mm



- Push-in spring-cage PCB terminal blocks SPT 5 for conductor cross sections up to 6 mm², stranded
- Fast connection technology, thanks to principle of direct plug-in without tools
- Unrestricted 600-V-UL approval, thanks to compact zig-zag pinning
- Connection direction of the conductor: horizontal (0° -H) to the PCB
- Single-position terminal blocks with double pinning

Notes:

When aligning versions with double pinning, other rated insulation voltages can occur.

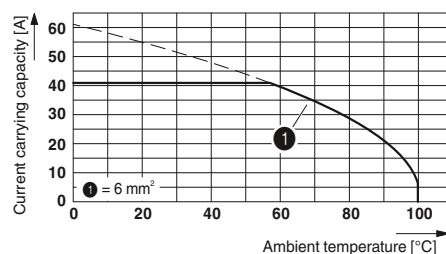
¹⁾ Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZF 1-0,6 x 3,5 Order No. 1204517	
	Marker cards SK 7,5/3,8	799
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Pitch spacer RZ-SPT 5-4 H Order No. 1701534	

Current carrying capacity curve

Type: SPT 5/...-H-7,5-ZB
Test following DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5



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	
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 5/ 1-H-7,5

41 ¹⁾ / 10			41 ¹⁾ / 10		
1000			1000		
7.5			7.5		
0.2 - 10 / 0.2 - 6 / 24 - 8			0.2 - 10 / 0.2 - 6 / 24 - 8		
0.25 - 6			0.25 - 6		
0.25 - 4			0.25 - 4		
- / -			- / -		
-			-		
0.25 - 1.5			0.25 - 1.5		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
630	1000	1000	800	1000	1000
6	6	6	8	8	6
B	C	D	B	C	D
300	150	600	600	600	-
35	35	5	35	35	-
24 - 8	24 - 8	24 - 8	24 - 8	24 - 8	-
B	C	D	B	C	D
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
15			15		
PA / I			PA / I		
V0			V0		
2.1 / 1.7 x 0.8			2.1 / 1.7 x 0.8		

SPT 5/ ...-H-7,5-ZB

No. of pos.	Dim. a [mm]
1	0.00
2	7.50
3	15.00
4	22.50
5	30.00
6	37.50
7	45.00
8	52.50
9	60.00
10	67.50
11	75.00
12	82.50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

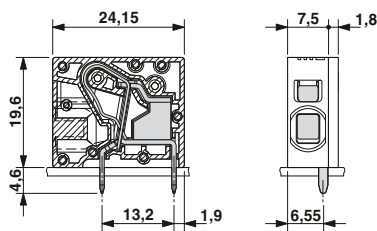


Individual PCB terminal block, double pinning

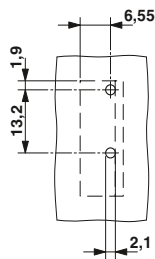
Zigzag pinning
600 V UL approval



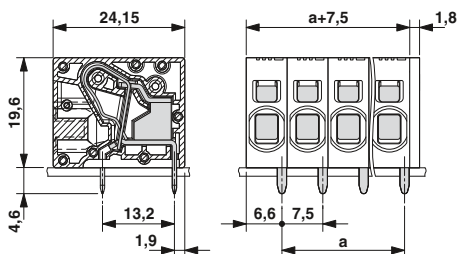
Dimensional drawing



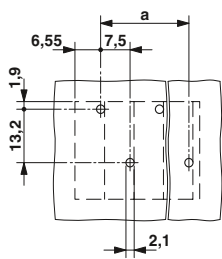
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type Order No. Pcs. / Pkt.
7.5 mm pitch, color: green

SPT 5/ 1-H-7,5 1719189 50

Ordering data

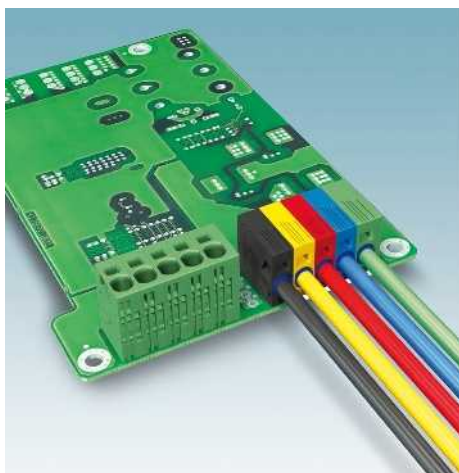
Type Order No. Pcs. / Pkt.
7.5 mm pitch, color: green

SPT 5/ 2-H-7,5-ZB	1719192	50
SPT 5/ 3-H-7,5-ZB	1719202	50
SPT 5/ 4-H-7,5-ZB	1719215	50
SPT 5/ 5-H-7,5-ZB	1719228	50
SPT 5/ 6-H-7,5-ZB	1719231	50
SPT 5/ 7-H-7,5-ZB	1719244	50
SPT 5/ 8-H-7,5-ZB	1719257	50
SPT 5/ 9-H-7,5-ZB	1719260	50
SPT 5/10-H-7,5-ZB	1719273	50
SPT 5/11-H-7,5-ZB	1719286	50
SPT 5/12-H-7,5-ZB	1719299	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

Vertical connection direction, pitch 7.5 mm





- Push-in spring-cage PCB terminal blocks SPT 5 for conductor cross sections up to 6 mm², stranded
- Fast connection technology, thanks to principle of direct plug-in without tools
- Unrestricted 600-V-UL approval, thanks to compact zig-zag pinning
- Connection direction of the conductor: Vertical (90° -V) to the PCB
- Single-position terminal blocks with double pinning

Notes:

When aligning versions with double pinning, other rated insulation voltages can occur.

1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Screwdriver SZF 1-0,6 x 3,5 Order No. 1204517	
	Marker cards SK 7,5/3,8	799
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Pitch spacer RZ-SPT 5-4-V Order No. 1701535	

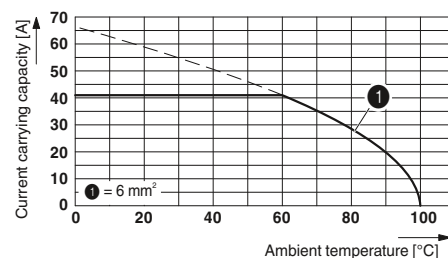
Current carrying capacity curve

Type: SPT 5/...-V-7,5-ZB

Test following DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5



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	
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 5/ 1-V-7,5

41 ¹⁾ / 10			41 ¹⁾ / 10		
1000			1000		
7.5			7.5		
0.2 - 10 / 0.2 - 6 / 24 - 8			0.2 - 10 / 0.2 - 6 / 24 - 8		
0.25 - 6			0.25 - 6		
0.25 - 4			0.25 - 4		
- / -			- / -		
-			-		
0.25 - 1.5			0.25 - 1.5		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
630	1000	1000	800	1000	1000
6	6	6	8	8	6
B	C	D	B	C	D
300	150	600	600	600	-
35	35	5	35	35	-
24 - 8	24 - 8	24 - 8	24 - 8	24 - 8	-
B	C	D	B	C	D
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
15			15		
PA / I			PA / I		
V0			V0		
2.1 / 1.7 x 0.8			2.1 / 1.7 x 0.8		

SPT 5/ ...-V-7,5-ZB

No. of pos.	Dim. a [mm]
1	0.00
2	7.50
3	15.00
4	22.50
5	30.00
6	37.50
7	45.00
8	52.50
9	60.00
10	67.50
11	75.00
12	82.50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

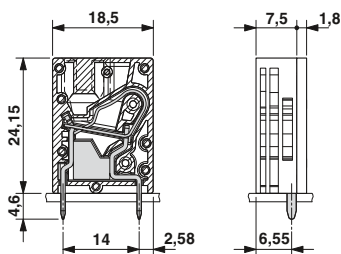


Individual PCB terminal block, double pinning

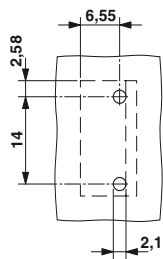
Z pinning, 600 V UL approval



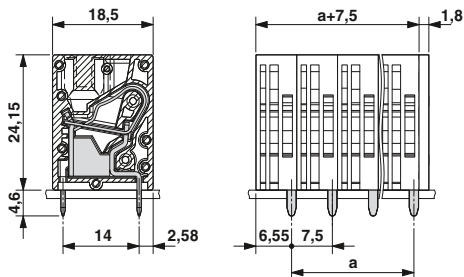
Dimensional drawing



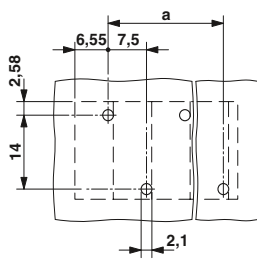
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type Order No. Pcs. / Pkt.
7.5 mm pitch, color: green

SPT 5/ 1-V-7,5 1719309 50

Ordering data

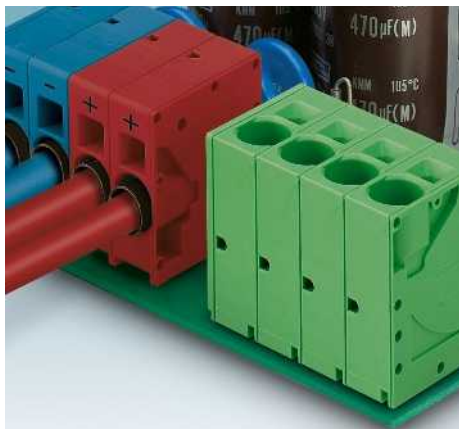
Type Order No. Pcs. / Pkt.
7.5 mm pitch, color: green

SPT 5/ 2-V-7,5-ZB	1719312	50
SPT 5/ 3-V-7,5-ZB	1719325	50
SPT 5/ 4-V-7,5-ZB	1719338	50
SPT 5/ 5-V-7,5-ZB	1719341	50
SPT 5/ 6-V-7,5-ZB	1719354	50
SPT 5/ 7-V-7,5-ZB	1719367	50
SPT 5/ 8-V-7,5-ZB	1719370	50
SPT 5/ 9-V-7,5-ZB	1719383	50
SPT 5/10-V-7,5-ZB	1719396	50
SPT 5/11-V-7,5-ZB	1719406	50
SPT 5/12-V-7,5-ZB	1719419	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

Horizontal connection direction, pitch 10 mm



- SPT 16 PCB terminal block with push-in spring connection for conductor cross sections up to 16 mm² and a current carrying capacity of 76 A
- Fast connection technology, thanks to principle of direct plug-in without tools
- Unrestricted 600-V-UL approval, thanks to compact zigzag pinning
- Connection direction of the conductor: horizontal (0° -H) to the PCB
- Terminal blocks that can be lined up next to each other for color coding from position to position
- Single-position terminal blocks with double pinning

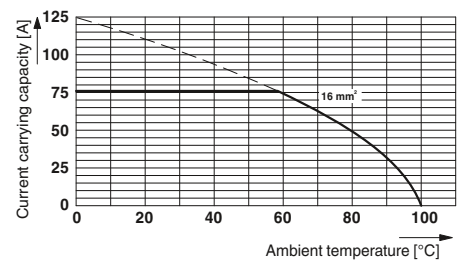
Notes:
When aligning versions with double pinning, other rated insulation voltages can occur.
1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Marker strips SK 5,0 WH:REEL Order No. 0805221	801
	Screwdriver SZF 2-0,8 x4,0 Order No. 1204520	
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Crimping pliers for 10 to 16 mm ² CRIMPFOX 16 S Order No. 1207983	

Current carrying capacity curve

Type: SPT 16/...-H-10,0-ZB
Test based on DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 5



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 & multi-strand / 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 & multi-strand / 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	
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 16/ 1-H-10,0

76 ¹⁾ / 16		
1000		
10		
0.75 - 16 / 0.75 - 16 / 20 - 4		
0.75 - 16		
0.75 - 10		
- / -		
-		
0.75 - 4		
III / 3	III / 2	II / 2
1000	1000	1000
8	8	6
B	C	D
300	150	300
66	66	10
20 - 4	20 - 4	20 - 4
B	C	D
-	-	-
-	-	-
-	-	-
18		
PA / I		
V0		
1.7 / 1.2 x 1 mm		

SPT 16/ ...-H-10,0-ZB

76 ¹⁾ / 16		
1000		
10		
0.75 - 16 / 0.75 - 16 / 20 - 4		
0.75 - 16		
0.75 - 10		
- / -		
-		
0.75 - 4		
III / 3	III / 2	II / 2
1000	1000	1000
8	8	6
B	C	D
600	600	-
66	66	-
20 - 4	20 - 4	-
B	C	D
-	-	-
-	-	-
-	-	-
18		
PA / I		
V0		
1.7 / 1.2 x 1 mm		

No. of pos.	Dim. a [mm]
1	0.00
2	10.00
3	20.00
4	30.00
5	40.00
6	50.00
7	60.00
8	70.00
9	80.00

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

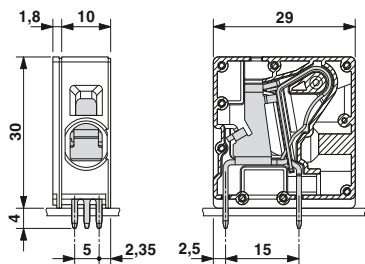


Individual PCB terminal block, double pinning

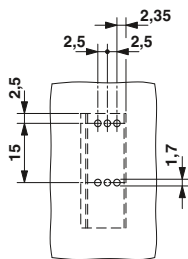
Z pinning, 600 V UL approval



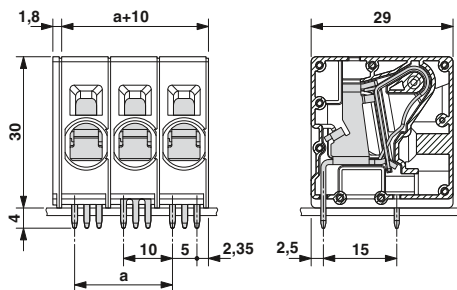
Dimensional drawing



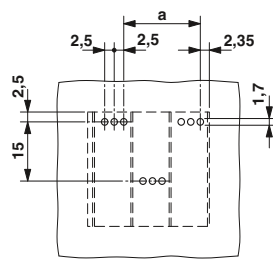
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type Order No. Pcs. / Pkt.
10 mm pitch, color: green

SPT 16/ 1-H-10,0 1735778 50

Ordering data

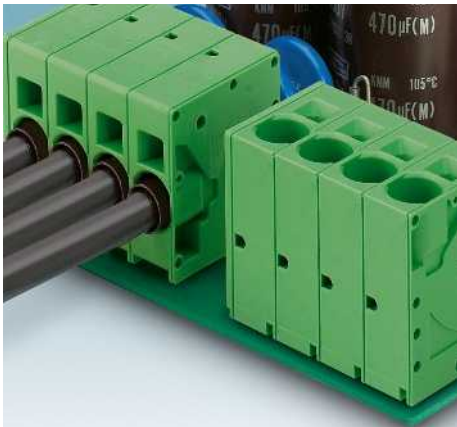
Type Order No. Pcs. / Pkt.
10 mm pitch, color: green

SPT 16/ 2-H-10,0-ZB	1735781	50
SPT 16/ 3-H-10,0-ZB	1735794	50
SPT 16/ 4-H-10,0-ZB	1735804	50
SPT 16/ 5-H-10,0-ZB	1735817	50
SPT 16/ 6-H-10,0-ZB	1735820	50
SPT 16/ 7-H-10,0-ZB	1735833	50
SPT 16/ 8-H-10,0-ZB	1735846	50
SPT 16/ 9-H-10,0-ZB	1735859	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

Vertical connection direction, pitch 10 mm

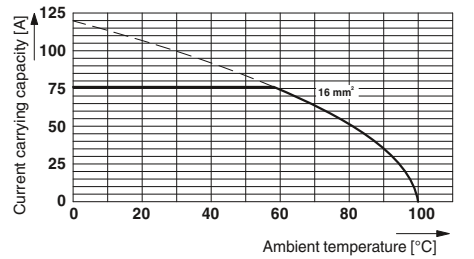


- SPT 16 PCB terminal block with push-in spring connection for conductor cross sections up to 16 mm² and a current carrying capacity of 76 A
- Fast connection technology, thanks to principle of direct plug-in without tools
- Unrestricted 600-V-UL approval, thanks to compact zig-zag pinning
- Connection direction of the conductor: horizontal (90° -V) to the PCB
- Single-position terminal blocks with double pinning
- Additional versions with anti-rotation protection for clear positioning during PCB assembly

Notes:
When aligning versions with double pinning, other rated insulation voltages can occur.
1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories		
For all types	Type	Page
	Marker strips SK 5,0 WH:REEL Order No. 0805221	801
	Screwdriver SZF 2-0,8 x4,0 Order No. 1204520	
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Crimping pliers for 10 to 16 mm ² CRIMPFOX 16 S Order No. 1207983	

Current carrying capacity curve
Type: SPT 16/...-V-10,0-ZB
Test based on DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 5



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 & multi-strand / 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 & multi-strand / 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	
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 16/ 1-V-10,0

SPT 16/ 1-V-10,0			SPT 16/ ...-V-10,0-ZB		
76 ¹⁾ / 16			76 ¹⁾ / 16		
1000			1000		
10			10		
0.75 - 16 / 0.75 - 16 / 20 - 4			0.75 - 16 / 0.75 - 16 / 20 - 4		
0.75 - 16			0.75 - 16		
0.75 - 10			0.75 - 10		
- / -			- / -		
-			-		
0.75 - 4			0.75 - 4		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
1000	1000	1000	1000	1000	1000
8	8	6	8	8	6
B	C	D	B	C	D
300	150	300	600	600	-
66	66	10	66	66	-
20 - 4	20 - 4	20 - 4	20 - 4	20 - 4	-
B	C	D	B	C	D
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
18			18		
PA / I			PA / I		
V0			V0		
1.7 / 1.2 x 1 mm			1.7 / 1.2 x 1 mm		

No. of pos. Dim. a [mm]

No. of pos.	Dim. a [mm]
1	0.00
2	10.00
3	20.00
4	30.00
5	40.00
6	50.00
7	60.00
8	70.00
9	80.00
2	10.00

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-in spring connection, SPT series up to 76 A/16 mm²

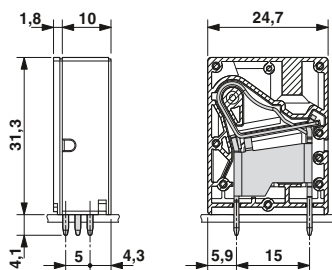


Individual PCB terminal block, double pinning

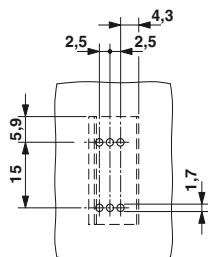
Z pinning, 600 V UL approval



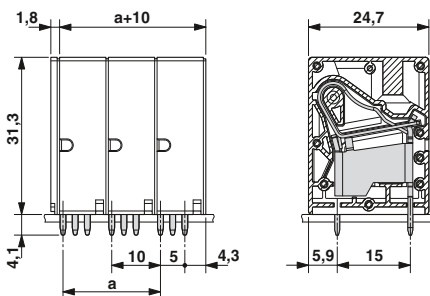
Dimensional drawing



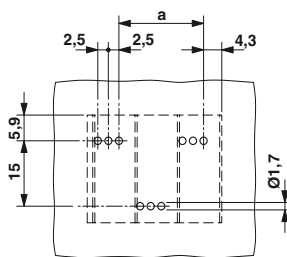
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green		
SPT 16/ 1-V-10,0	1735862	50

Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green		
SPT 16/ 2-V-10,0-ZB	1735875	50
SPT 16/ 3-V-10,0-ZB	1735888	50
SPT 16/ 4-V-10,0-ZB	1735891	50
SPT 16/ 5-V-10,0-ZB	1735901	50
SPT 16/ 6-V-10,0-ZB	1735914	50
SPT 16/ 7-V-10,0-ZB	1735927	50
SPT 16/ 8-V-10,0-ZB	1735930	50
SPT 16/ 9-V-10,0-ZB	1735943	50
10 mm pitch, color: green, with anti-rotation pins, drilling diagram, and dimensional drawing, see www.phoenixcontact.net/products		
SPT 16/ 2-V-10,0-ZBV GN	1775356	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-lock spring connection, PL series up to 76 A/16 mm²



Horizontal connection direction, zig-zag pinning, 600 V UL approval

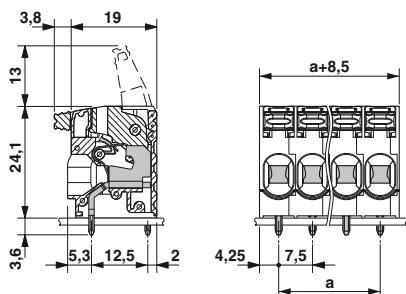


Individual PCB terminal block, 30° angled connection direction, double pinning

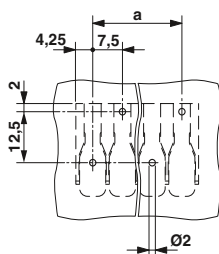


30° angled connection direction, zig-zag pinning, 600 V UL approval

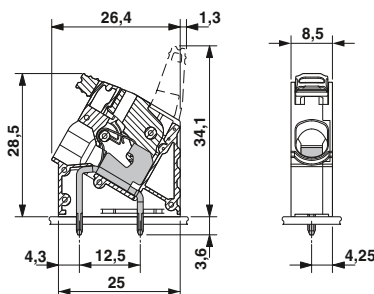
Dimensional drawing



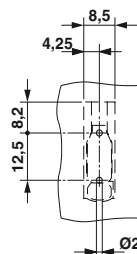
Drilling diagram



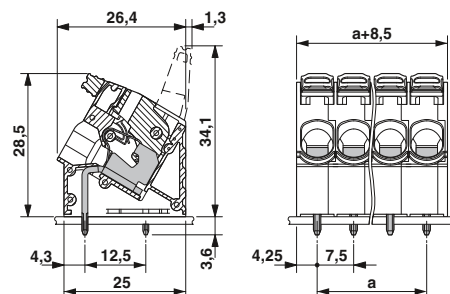
Dimensional drawing



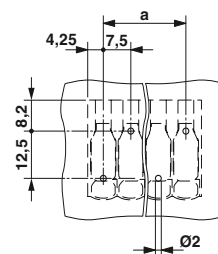
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
7.5 mm pitch, color: green		
PLH 5/ 2-7,5-ZF	1792106	25
PLH 5/ 3-7,5-ZF	1792119	25
PLH 5/ 4-7,5-ZF	1792122	25
PLH 5/ 5-7,5-ZF	1792135	25
PLH 5/ 6-7,5-ZF	1792148	25
PLH 5/ 7-7,5-ZF	1792151	25
PLH 5/ 8-7,5-ZF	1792164	25
PLH 5/ 9-7,5-ZF	1792177	25
PLH 5/10-7,5-ZF	1792180	25
PLH 5/11-7,5-ZF	1792193	25
PLH 5/12-7,5-ZF	1792203	25

Ordering data

Type	Order No.	Pcs. / Pkt.
7.5 mm pitch, color: green		
PLA 5/ 1-7,5	1792216	25

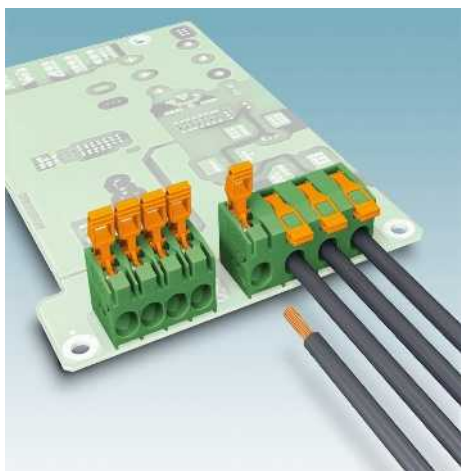
Ordering data

Type	Order No.	Pcs. / Pkt.
7.5 mm pitch, color: green		
PLA 5/ 2-7,5-ZF	1792229	25
PLA 5/ 3-7,5-ZF	1792232	25
PLA 5/ 4-7,5-ZF	1792245	25
PLA 5/ 5-7,5-ZF	1792258	25
PLA 5/ 6-7,5-ZF	1792261	25
PLA 5/ 7-7,5-ZF	1792274	25
PLA 5/ 8-7,5-ZF	1792287	25
PLA 5/ 9-7,5-ZF	1792290	25
PLA 5/10-7,5-ZF	1792300	25
PLA 5/11-7,5-ZF	1792313	25
PLA 5/12-7,5-ZF	1792326	25

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-lock spring connection, PL series up to 76 A/16 mm²

Horizontal connection direction up to 10/15 mm pitch







- PLH 16 terminal block with push-lock spring connection with lever operation for conductor cross sections up to 16 mm² and a current carrying capacity of up to 76 A
- Low actuation forces
- Fast connection technology, thanks to the toolless “One-hand tilting lever principle” or the direct plug-in method
- Unrestricted 600 V-UL approval already available with a 10 mm pitch with zig-zag pinning
- Touch connection for integration in the center of the lever
- Color coding from position to position, thanks to terminal blocks that can be mounted side by side
- Supplied open

Notes:

1) Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Marker cards SK U/3,8 WH: UN-PRINTED Order No. 0803906	
	Ferrules with and without plastic sleeve	834
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Crimping pliers for 10 to 16 mm ² CRIMPFOX 16 S Order No. 1207983	

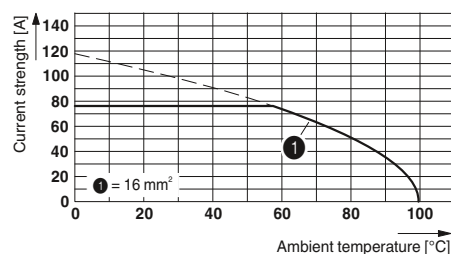
Current carrying capacity curve

Type: PLH 16/...-10

Tested in accordance with DIN EN 60512-5-2:2003-01

No. of positions: 5

Conductor cross section: 16 mm²



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]

Rated insulation voltage for pollution degree 2 [V]

Pitch [mm]

Connection capacity

Solid & multi-strand / stranded [mm²] / [mm²] / AWG

Stranded with ferrules without plastic sleeve [mm²]

Stranded with ferrules with plastic sleeve [mm²]

Multi-conductor connection capacity (two conductors with the same cross section)

Solid & multi-strand / stranded [mm²]

Stranded with ferrules without plastic sleeve [mm²]

Stranded with TWIN ferrule with plastic sleeve [mm²]

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

Approval data (CSA) Use Group

Nominal voltage [V]

Nominal current [A]

Connection capacity 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]

PLH 16/ ...-10

76¹⁾ / 16

400

10

0.75 - 16 / 0.75 - 16 / 18 - 4

0.75 - 16

0.75 - 10

- / -

-

0.75 - 4

III / 3 III / 2 II / 2

400 400 800

4 4 4

B C D

300 300 -

51 51 -

18 - 6 18 - 6 -

B C D

- - -

- - -

- - -

18

PA / I

V0

1.6 / 1.2 x 1.2 mm

PLH 16/ ...-10-ZF

76¹⁾ / 16

1000

10

0.75 - 16 / 0.75 - 16 / 18 - 4

0.75 - 16

0.75 - 10

- / -

-

0.75 - 4

III / 3 III / 2 II / 2

1000 1000 1000

8 8 8

B C D

600 600 -

51 51 -

18 - 6 18 - 6 -

B C D

- - -

- - -

- - -

18

PA / I

V0

1.6 / 1.2 x 1.2 mm

PLH 16/ ...-15

76¹⁾ / 16

1000

15

0.75 - 16 / 0.75 - 16 / 18 - 4

0.75 - 16

0.75 - 10

- / -

-

0.75 - 4

III / 3 III / 2 II / 2

1000 1000 1000

8 8 8

B C D

600 600 -

66 66 -

18 - 4 18 - 4 -

B C D

- - -

- - -

- - -

18

PA / I

V0

1.6 / 1.2 x 1.2 mm

No. of pos. Dim. a [mm]

1

2 10.00

3 20.00

4 30.00

5 40.00

6 50.00

7 60.00

8 70.00

2 15.00

3 30.00

4 45.00

5 60.00

6 75.00

7 90.00

8 105.00

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-lock spring connection, PL series up to 76 A/16 mm²



Double pinning, 10 mm pitch



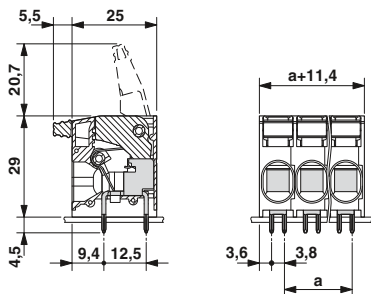
600 V UL approval, Z pinning, 10 mm pitch



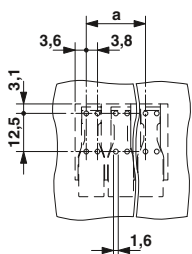
600 V UL approval, double pinning, 15 mm pitch



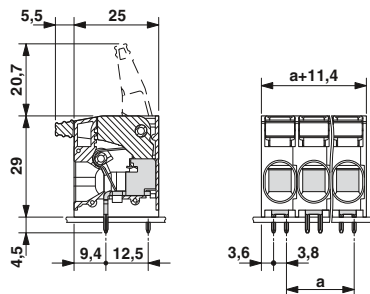
Dimensional drawing



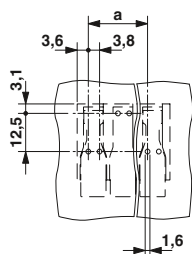
Drilling diagram



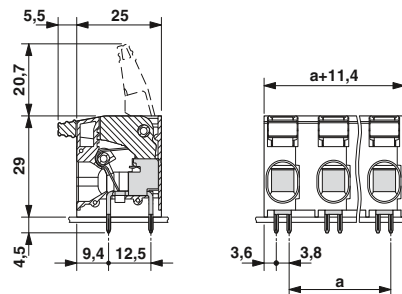
Dimensional drawing



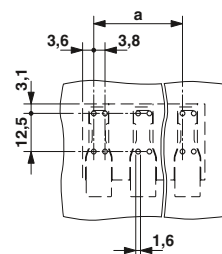
Drilling diagram



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green		
PLH 16/ 1-10	1703995	25
PLH 16/ 2-10	1770393	25
PLH 16/ 3-10	1770403	25
PLH 16/ 4-10	1770416	25
PLH 16/ 5-10	1770429	25
PLH 16/ 6-10	1770432	25
PLH 16/ 7-10	1770445	25
PLH 16/ 8-10	1770458	25

Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green		
PLH 16/ 2-10-ZF	1770461	25
PLH 16/ 3-10-ZF	1770474	25
PLH 16/ 4-10-ZF	1770487	25
PLH 16/ 5-10-ZF	1770490	25
PLH 16/ 6-10-ZF	1770500	25
PLH 16/ 7-10-ZF	1770513	25
PLH 16/ 8-10-ZF	1770526	25

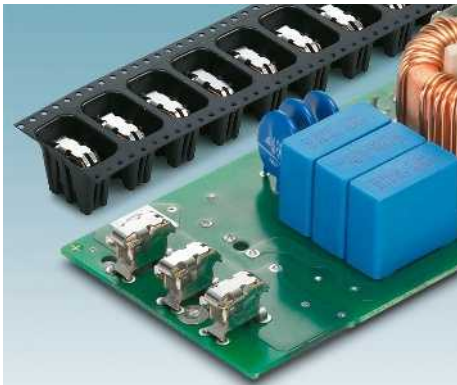
Ordering data

Type	Order No.	Pcs. / Pkt.
15 mm pitch, color: green		
PLH 16/ 2-15	1770539	25
PLH 16/ 3-15	1770542	25
PLH 16/ 4-15	1770555	25
PLH 16/ 5-15	1770568	25
PLH 16/ 6-15	1770571	25
PLH 16/ 7-15	1770584	25
PLH 16/ 8-15	1770597	25

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-lock spring connection for the reflow process, PTSPL series up to 41 A/6 mm²

Horizontal connection direction without insulating housing



- PTSPLO 6 push-lock spring-cage PCB terminal block without insulating body for conductor cross sections up to 6 mm² and a current carrying capacity of up to 41 A
- For use in SMT reflow processes
- Low actuation forces
- Delivery form: tape-on-reel packing according to IEC 60286-3 for automated mounting; 330 mm reel diameter
- PTSPLO spring closed for assembly with vacuum pipette
- PTSPLO spring opened for assembly with mechanical gripper
- Standard pin lengths of 2.1 mm and 2.9 mm



Notes:

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 tape reels and place pads can be found online at www.phoenixcontact.net/products.

1) UL/CUL on request.

2) Please observe the current carrying capacity curves and laboratory data sheets. Current carrying capacity curves can be found at www.phoenixcontact.net/products.

Accessories

For all types	Type	Page
	Screwdriver SZF 1-0,6 x 3,5 Order No. 1204517	
	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 / conductor cross section	[A] / [mm ²]
Rated insulation voltage for pollution degree 2	[V]
Pitch	[mm]
Connection capacity	
Solid & multi-strand / 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 & multi-strand / 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	
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]

PTSPL-6/1-2X2 2,1

PTSPLO-6/1-2X2 2,1

41 ²⁾ / 6			41 ²⁾ / 6		
-			-		
-			-		
- / 2.5 - 6 / -			- / 2.5 - 6 / -		
2.5 - 6			2.5 - 6		
-			-		
- / -			- / -		
-			-		
-			-		
III / 3	III / 2	II / 2	III / 3	III / 2	II / 2
B	C	D	B	C	D
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
B	C	D	B	C	D
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
15			15		
- / -			- / -		
-			-		
1.3 / 0.6 x 1			1.3 / 0.6 x 1		

No. of pos.

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with push-lock spring connection for the reflow process, PTSPL series up to 41 A/6 mm²



N

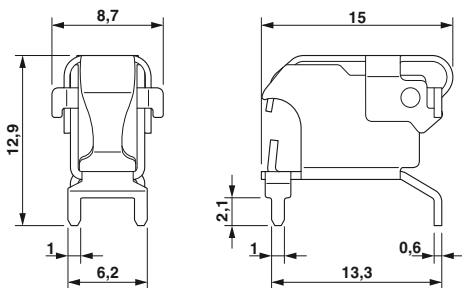
Closed on delivery, tape-on-reel packing



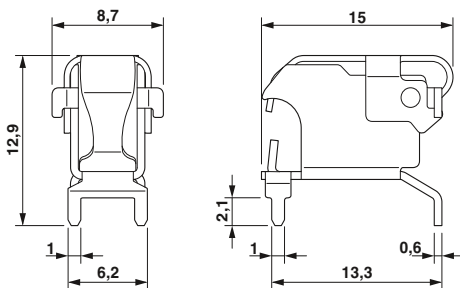
N

Open on delivery, individual PCB terminal block without insulating body, tape-on-reel packing

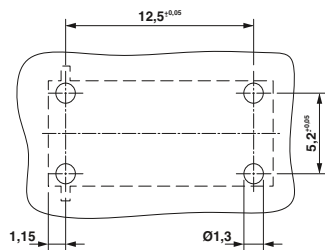
Dimensional drawing



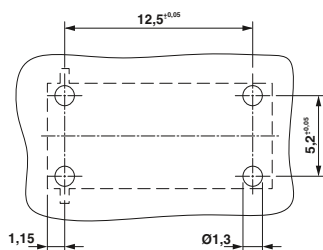
Dimensional drawing



Drilling diagram



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
PCB terminal block closed, pin length 2.1 mm		
PTSPL-6/1-2X2 2,1 R32	1704836	240
PCB terminal block closed, pin length 2.9 mm		
PTSPL-6/1-2X2 2,9 R32	1704837	240

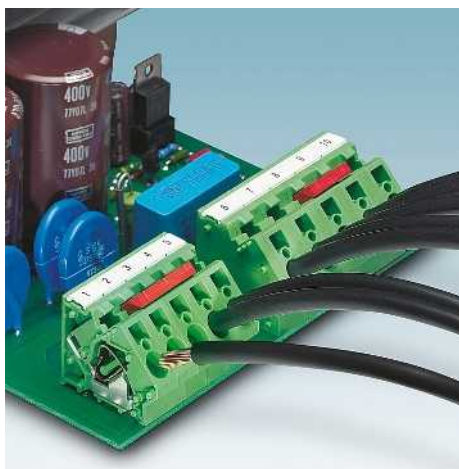
Ordering data

Type	Order No.	Pcs. / Pkt.
PCB terminal block open, pin length 2.1 mm		
PTSPLO-6/1-2X2 2,1 R32	1705081	220
Open PCB terminal block, pin length 2.9 mm		
PTSPLO-6/1-2X2 2,9 R32	1705085	220

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with spring-cage connection, ZFKDS series up to 76 A/16 mm²

Angled connection direction, pitch 7.5 mm



- PCB terminal blocks with spring-cage connection up to 6 mm² conductor cross section
- Fully insulated bridges (FBSK) with different number of positions, e. g. for potential distribution
- Integrated test connection
- Pitch spacers (RZ) for voltage expansion
- Optional mounting flange (FL) for safe mounting in the device
- Colored marking of individual positions is possible
- A ZFKDSA end terminal block must be used at the end of a row of terminal blocks

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

The current carrying capacity of the FBSK-ZFKDS 4 plug-in bridge is 20 A (see laboratory data sheet).

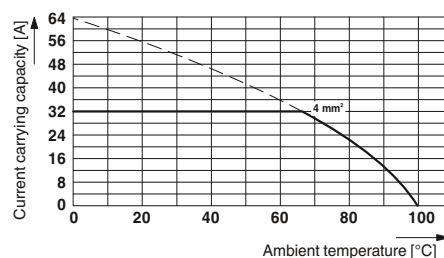
¹⁾ Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Pitch spacer, width: 2.5 mm RZ-ZFKDS 4 Order No. 1928521	
	Pair of flanges FL-ZFKDS 4 Order No. 1928495	
	Marker cards SK 7,5/5 or SK10/5	800
	Flat Zack marker strip ZBF 7,5 or ZBF 10	807
	Crimping pliers for 0.25 to 6 mm ² CRIMPFIX 6 Order No. 1212034	
Only for ZFKDS 4...		
	Plug-in bridge FBSK...	830

Current carrying capacity curve

Type: ZFKDS 4-7,5 and ZFKDSA 4-9
Test following DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]

Rated insulation voltage for pollution degree 2 [V]

Pitch [mm]

Connection capacity

Solid / stranded [mm²] / [mm²] / AWG

Stranded with ferrules without plastic sleeve [mm²]

Stranded with ferrules with plastic sleeve [mm²]

Multi-conductor connection capacity (two conductors with the same cross section)

Solid / stranded [mm²]

Stranded with ferrules without plastic sleeve [mm²]

Stranded with TWIN ferrule with plastic sleeve [mm²]

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]

ZFKDS 4-7,5

32¹⁾ / 6

630

7.5

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

- / -

-

-

III / 3 III / 2 II / 2

500 630 1000

6 6 6

B C D

300 150 300

30 30 10

24 - 10 24 - 10 24 - 10

B C D

- - -

- - -

- - -

10

PA / I

V0

1.8 / 1.0 x 1.4 mm

ZFKDS 4-10

32¹⁾ / 6

630

10

0.2 - 6 / 0.2 - 4 / 24 - 10

0.25 - 4

0.25 - 4

- / -

-

-

III / 3 III / 2 II / 2

630 630 1000

6 6 6

B C D

300 300 600

30 30 5

24 - 10 24 - 10 24 - 10

B C D

- - -

- - -

- - -

10

PA / I

V0

1.8 / 1.0 x 1.4 mm

No. of pos.

1

1

1

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with spring-cage connection, ZFKDS series up to 76 A/16 mm²

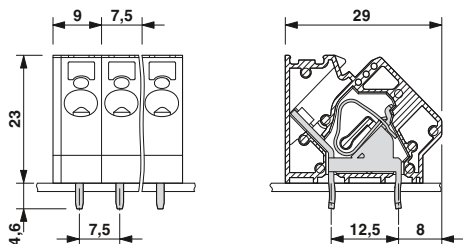


7.5 mm pitch, with test connection, bridgeable

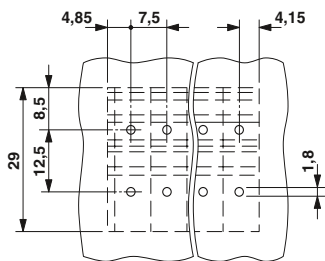
10 mm pitch, with test connection, bridgeable



Dimensional drawing



Drilling diagram

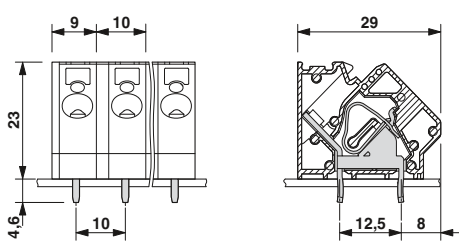


Ordering data

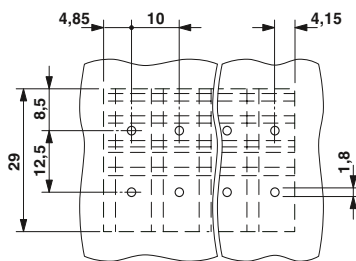
Type	Order No.	Pcs. / Pkt.
7.5 mm pitch, color: green		
ZFKDS 4-7,5	1907526	50
End terminal block, 9 mm wide, required at the end of a terminal row		
ZFKDSA 4-9	1907542	50



Dimensional drawing



Drilling diagram



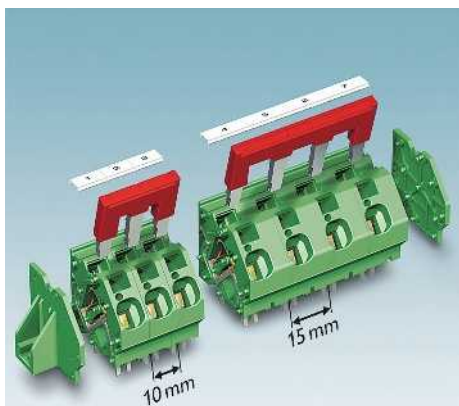
Ordering data

Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green		
ZFKDS 4-10	1907539	50
End terminal block, 9 mm wide, required at the end of a terminal row		
ZFKDSA 4-9	1907542	50

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with spring-cage connection, ZFKDS series up to 76 A/16 mm²

Angled connection direction, pitch 10 mm



- PCB terminal blocks with spring-cage connection up to 16 mm² conductor cross section
- 15 mm pitch for the unrestricted 600-V-UL approval
- Fully insulated bridges (FBSK) with different number of positions, e. g. for potential distribution
- Integrated test connection
- Optional mounting flange (FL) for safe mounting in the device
- Colored marking of individual positions is possible
- A ZFKDSA end terminal block must be used at the end of a row of terminal blocks

Notes:

In order to avoid tolerances between the terminal blocks and PCB, the terminal row should be interrupted when the number of positions exceeds 30.

The current carrying capacity of the FBSK-ZFKDS 10 plug-in bridge is 57 A (see laboratory data sheet).

¹⁾ When the bridge is used, the voltage is reduced to 800 V.

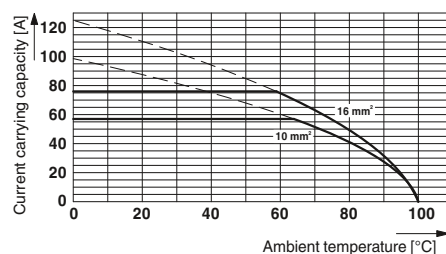
²⁾ Please observe the current carrying capacity curves and laboratory data sheets. Further current carrying capacity curves on request.

Accessories

For all types	Type	Page
	Pair of flanges FL-ZFKDS 10 Order No. 1987070	
	Screwdriver SZF 3-1,0 x 5,5 Order No. 1206612	
	Marker strips SK 5,0 WH:REEL Order No. 0805221	801
	Crimping pliers for 0.25 to 6 mm ² CRIMPFOX 6 Order No. 1212034	
	Crimping pliers for 10 to 16 mm ² CRIMPFOX 16 S Order No. 1207983	
Only for ZFKDS 10-...		
	Plug-in bridge FBSK.../ZFKDS 10	830

Current carrying capacity curve

Type: ZFKDS 10-10,00 and ZFKDSA 10-11,7
Test following DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5



Technical data

Technical data in accordance to IEC / DIN VDE

Rated current / conductor cross section [A] / [mm²]

Rated insulation voltage for pollution degree 2 [V]

Pitch [mm]

Connection capacity

Solid / stranded [mm²] / [mm²] / AWG

Stranded with ferrules without plastic sleeve [mm²]

Stranded with ferrules with plastic sleeve [mm²]

Multi-conductor connection capacity (two conductors with the same cross section)

Solid / stranded [mm²]

Stranded with ferrules without plastic sleeve [mm²]

Stranded with TWIN ferrule with plastic sleeve [mm²]

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]

ZFKDS 10-10,00

Rated current / conductor cross section			76 ²⁾ / 16			76 ²⁾ / 16		
Rated insulation voltage for pollution degree 2			400			1000 ¹⁾		
Pitch			10			15		
Connection capacity								
Solid / stranded			0.2 - 16 / 0.2 - 16 / 24 - 6			0.2 - 16 / 0.2 - 16 / 24 - 6		
Stranded with ferrules without plastic sleeve			0.25 - 10			0.25 - 10		
Stranded with ferrules with plastic sleeve			0.25 - 10			0.25 - 10		
Multi-conductor connection capacity (two conductors with the same cross section)								
Solid / stranded			- / -			- / -		
Stranded with ferrules without plastic sleeve			-			-		
Stranded with TWIN ferrule with plastic sleeve			-			-		
Insulation coordination								
Surge voltage category / pollution degree			III / 3 III / 2 II / 2			III / 3 III / 2 II / 2		
Rated insulation voltage			320 400 800			1000 ¹⁾ 1000 ¹⁾ 1000 ¹⁾		
Rated surge voltage			4 4 4			8 8 8		
Approval data (UL/CUL)			B C D			B C D		
Nominal voltage			300 150 300			600 600 -		
Nominal current			65 65 10			65 65 -		
Connection capacity AWG			24 - 6 24 - 6 24 - 6			24 - 6 24 - 6 -		
Approval data (CSA)			B C D			B C D		
Nominal voltage			-			-		
Nominal current			-			-		
Connection capacity AWG			-			-		
General data								
Stripping length			12			12		
Type of insulation material / insulation material group			PA / I			PA / I		
Inflammability class according to UL 94			V0			V0		
Drill hole diameter / pin dimensions			2.2 / 1.2 x 1.4			2.2 / 1.2 x 1.4		

No. of pos.

1

1

1

1

PCB terminal blocks for power electronics with pitch from 6.35 to 15.0 mm

PCB terminal blocks with spring-cage connection, ZFKDS series up to 76 A/16 mm²



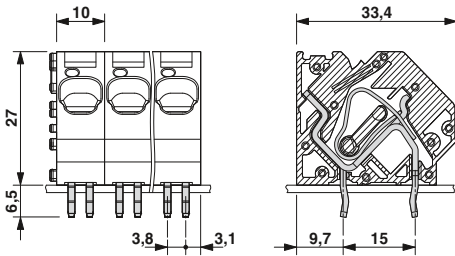
10 mm pitch, with test connection, bridgeable



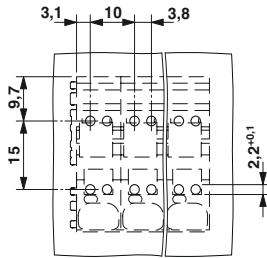
15 mm pitch, with test connection, bridgeable, 600 V UL approval



Dimensional drawing



Drilling diagram

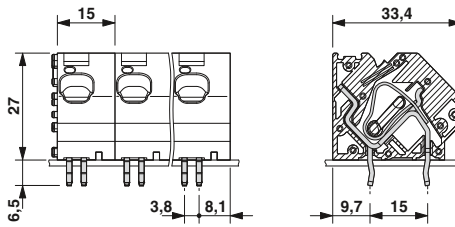


Ordering data

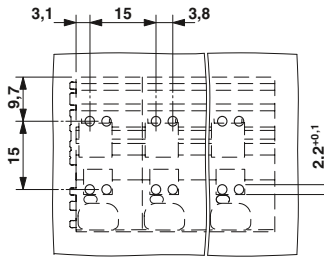
Type	Order No.	Pcs. / Pkt.
10 mm pitch, color: green		
ZFKDS 10-10,00	1986628	50
End terminal block, 11.7 mm wide, required at the end of a terminal row		
ZFKDSA 10-11,7	1987054	50



Dimensional drawing



Drilling diagram



Ordering data

Type	Order No.	Pcs. / Pkt.
15 mm pitch, color: green		
ZFKDS 10-15,00	1986631	50
End terminal block, 16.7 mm wide, required at the end of a terminal row		
ZFKDSA 10-16,7	1987067	50