

PCB terminal block - ZFKDSA 4-10- 4 - 1743744

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PCB terminal block, nominal current: 32 A, rated voltage (III/2): 630 V, nominal cross section: 4 mm², pitch: 10 mm, number of positions: 4, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 4.6 mm

The figure shows a 5-pos. version of the product

Your advantages

- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- ✓ Separate bridge shaft for easily connecting multiple positions to jumpers
- ✓ Quick and convenient testing using integrated test option



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 50 pc |
| GTIN | |
| GTIN | 4046356302951 |

Technical data

Item properties

| | |
|---------------------------|------------------------|
| Brief article description | PCB terminal block |
| Range of articles | ZFKDS(A) 4 |
| Pitch | 10 mm |
| Number of positions | 4 |
| Connection method | Spring-cage connection |
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |
| Number of levels | 1 |
| Number of connections | 4 |
| Number of potentials | 4 |

Electrical parameters

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Technical data

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 32 A |
| Nom. voltage | 630 V |
| Rated voltage | 630 V |
| Rated voltage (III/2) | 630 V |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (III/3) | 6 kV |
| Rated surge voltage (III/2) | 6 kV |
| Rated surge voltage (II/2) | 6 kV |

Connection capacity

| | |
|---|--|
| Connection method | Spring-cage connection |
| pluggable | Yes |
| Conductor cross section solid | 0.2 mm ² ... 6 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 4 mm ² |
| Conductor cross section AWG / kcmil | 24 ... 10 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 4 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 4 mm ² |
| Stripping length | 10 mm |

Material data - contact

| | |
|--|---|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface terminal point (top layer) | Tin (10 - 16 µm Sn) |
| Metal surface soldering area (top layer) | Tin (10 - 16 µm Sn) |

Material data - housing

| | |
|---|--------------|
| Housing color | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

Dimensions for the product

| | |
|-----------------------------|---------|
| Length [l] | 29 mm |
| Width [w] | 41.5 mm |
| Height [h] | 27.6 mm |
| Pitch | 10 mm |
| Height (without solder pin) | 23 mm |

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Technical data

Dimensions for the product

| | |
|----------------|------------|
| Solder pin [P] | 4.6 mm |
| Pin dimensions | 1 x 1.4 mm |

Dimensions for PCB design

| | |
|---------------|--------|
| Hole diameter | 1.8 mm |
|---------------|--------|

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |
| Denomination packing units | Pcs. |

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (Depending on the current carrying capacity/derating curve) |

Termination and connection method

| | |
|--|-----------------------|
| Connection test | IEC 60998-2-2:1991-10 |
| Test result | Test passed |
| Test for conductor damage and slackening | IEC 60998-2-2:1991-10 |
| | Test passed |

Pull-out test

| | |
|--|---|
| Pull-out test | IEC 60998-2-2:1991-10 |
| | Test passed |
| Conductor cross section / conductor type / tensile force | 0.2 mm ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 6 mm ² / solid / > 80 N |
| | 4 mm ² / flexible / > 60 N |

Mechanical tests according to standard

| | |
|--------------------|--------------------------|
| Test specification | IEC 60998-2-2 (in parts) |
|--------------------|--------------------------|

Electrical tests

| | |
|-----------------------------|-------------------|
| Rated current | 32 A |
| Conductor cross section | 4 mm ² |
| Rated voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |

Air clearances and creepage distances

| | |
|---|---------------------|
| Clearances and creepage distances | IEC 60664-1:2007-04 |
| Specification | IEC 60664-1:2007-04 |
| Minimum clearance - inhomogeneous field (III/3) | 5.5 mm |
| Minimum clearance - inhomogeneous field (III/2) | 5.5 mm |
| Minimum clearance - inhomogeneous field (II/2) | 5.5 mm |

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Technical data

Air clearances and creepage distances

| | |
|---|--------|
| Minimum creepage distance value (III/3) | 8 mm |
| Minimum creepage distance value (III/2) | 5.5 mm |
| Minimum creepage distance value (II/2) | 5.5 mm |

Temperature-rise test

| | |
|-----------------------------------|-------------------------------------|
| Specification | IEC 60998-2-1:1990-04 |
| Result | Test passed |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

Current carrying capacity / derating curves

| | |
|---------------------|---|
| Caption | Type: ZFKDS 4-10 Test according to DIN EN 60947-7-4 (VDE 0611-7-4):2014-08 Illustration according to DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 4 |
| Specification | IEC 60947-7-4:2013-08 |
| Number of positions | 4 |
| Reduction factor | 1 |
| Note | Representation based on IEC 60512-5-2:2002-02 |

Vibration test

| | |
|------------------------|------------------------|
| Specification | IEC 60068-2-6:1995-03 |
| Result | Test passed |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

Resistance to ageing, humidity and penetration of solids

| | |
|------------|-----------------|
| Dry heat | 168 h/100°C |
| Humid heat | 48 h/30 °C/92 % |

Insulation resistance

| | |
|--|-----------------------|
| Specification | IEC 60998-2-2:1991-10 |
| Result | Test passed |
| Insulation resistance, neighboring positions | $10^9 \Omega$ |

Glow-wire test

| | |
|------------------|-----------------------|
| Specification | IEC 60998-2-2:1991-10 |
| Result | Test passed |
| Temperature | 850 °C |
| Time of exposure | 5 s |

Mechanical strength/tumbling barrel test

| | |
|---------------|---------------------|
| Specification | IEC 60998-1:1990-04 |
|---------------|---------------------|

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Technical data

Mechanical strength/tumbling barrel test

| | |
|-----------------------|-------|
| Height of fall | 50 cm |
| Number of drop cycles | 50 |

Standards and Regulations

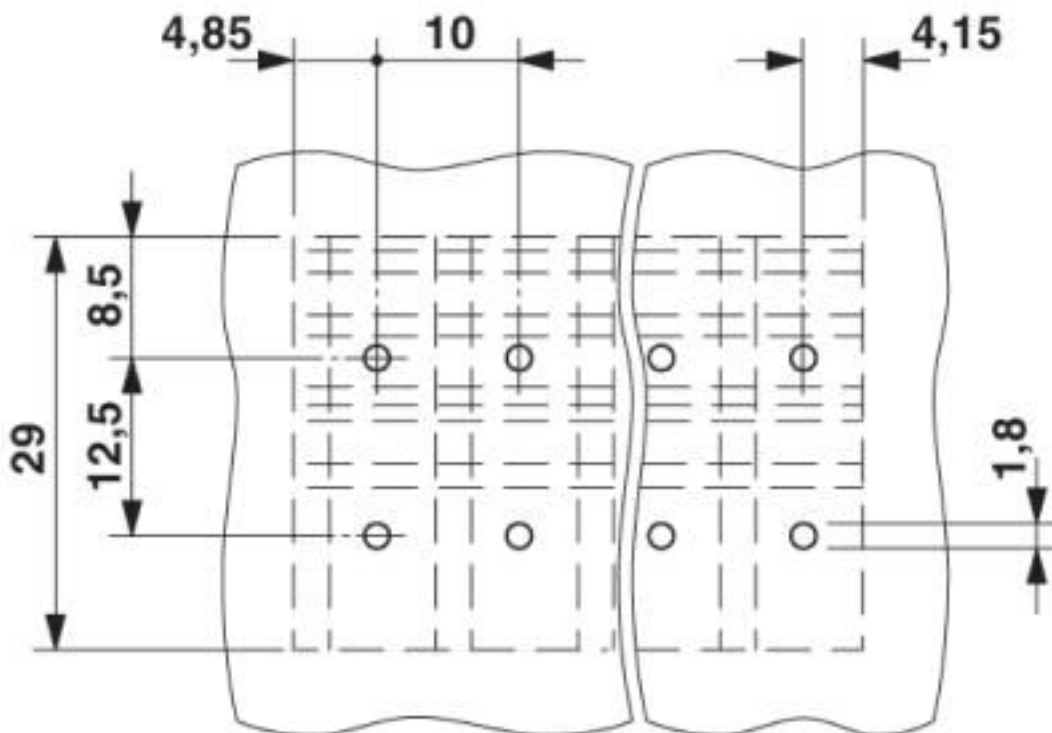
| | |
|--|--------|
| Connection in acc. with standard | EN-VDE |
| Flammability rating according to UL 94 | V0 |

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

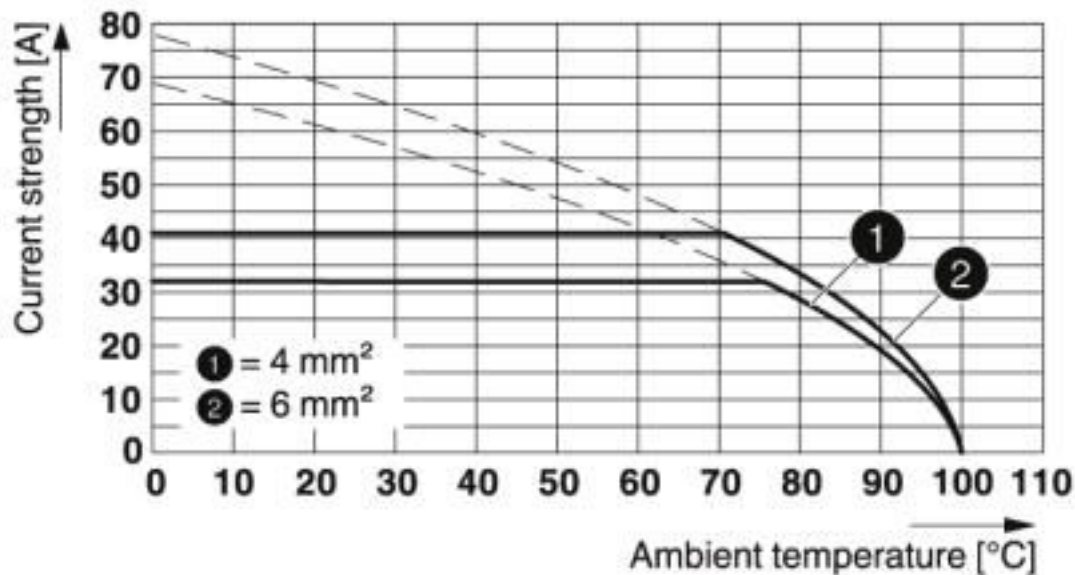
Drawings

Drilling diagram



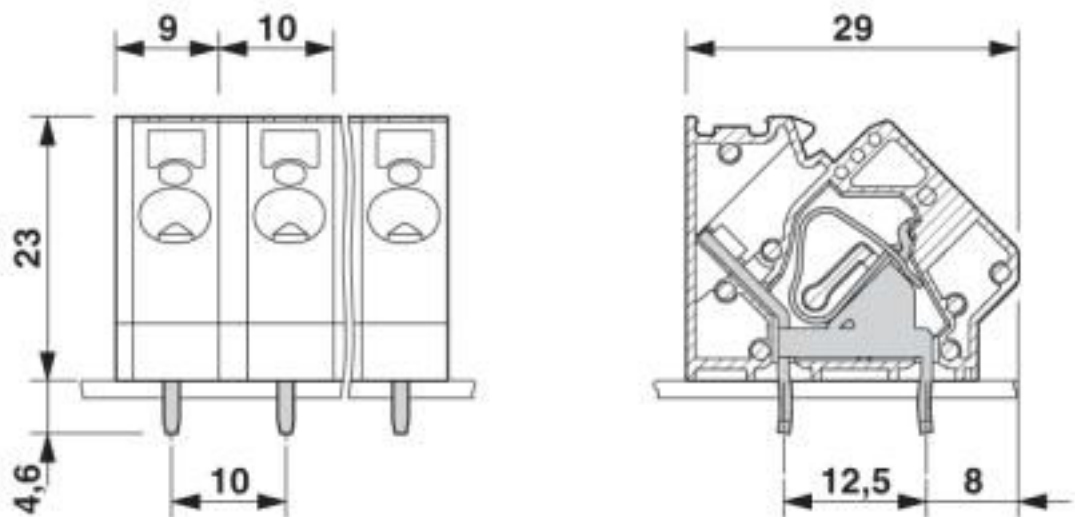
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Diagram



Type: ZFKDS 4-10
 Test according to DIN EN 60947-7-4 (VDE 0611-7-4):2014-08
 Illustration according to DIN EN 60512-5-2:2003-01
 Reduction factor = 1
 Number of positions: 4

Dimensional drawing



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 4.0 | 27141100 |
| eCl@ss 4.1 | 27141100 |

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Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.0 | 27141100 |
| eCl@ss 5.1 | 27261100 |
| eCl@ss 6.0 | 27261100 |
| eCl@ss 7.0 | 27440401 |
| eCl@ss 8.0 | 27440401 |
| eCl@ss 9.0 | 27440401 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002643 |
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |
| ETIM 7.0 | EC002643 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211801 |
| UNSPSC 7.0901 | 39121432 |
| UNSPSC 11 | 39121432 |
| UNSPSC 12.01 | 39121432 |
| UNSPSC 13.2 | 39121432 |
| UNSPSC 18.0 | 39121432 |
| UNSPSC 19.0 | 39121432 |
| UNSPSC 20.0 | 39121432 |
| UNSPSC 21.0 | 39121432 |

Approvals

Approvals

Approvals

EAC / cULus Recognized

Ex Approvals

Approval details

| | | |
|-----|--|---------|
| EAC | | B.01687 |
|-----|--|---------|

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Approvals

| | | | |
|--------------------|-------|---|-------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-19941110 | |
| | B | C | D |
| Nominal voltage UN | 300 V | 300 V | 600 V |
| Nominal current IN | 30 A | 30 A | 5 A |
| mm²/AWG/kcmil | 24-10 | 24-10 | 24-10 |

Accessories

Accessories

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Flange

PCB terminal block - FL-ZFKDS 4 - 1928495



Pair of flanges, can be snapped onto a row of single terminal blocks

Labeled terminal marker

Zack Marker strip, flat - ZBF10 CUS - 0825031



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 10 mm, lettering field size: 5.15 x 10 mm, Number of individual labels: 10

Pitch spacer

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Accessories

Pitch spacer - RZ-ZFKDS 4 - 1928521



Pitch spacer, 2.5 mm wide

Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Terminal marking

Zack Marker strip, flat - ZBF10:UNBEDRUCKT - 0809997



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 10 mm, lettering field size: 5.15 x 10 mm, Number of individual labels: 10

Marker card - SK U/5,0 WH:UNBEDRUCKT - 0803922



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 5 mm, Number of individual labels: 630

Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

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