

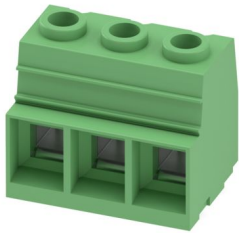
MKDSP 25/ 3-15,00 - PCB terminal block



1932591

<https://www.phoenixcontact.com/us/products/1932591>

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PCB terminal block, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm², number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: MKDSP 25, pitch: 15 mm, connection method: Screw connection with tension sleeve, screw head form: Z2L Slotted Pozidriv, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 4.5 mm, number of solder pins per potential: 4, type of packaging: packed in cardboard. Avoid placing permanent mechanical loads on the terminal

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Quick and convenient testing using integrated test option
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 1932591 |
| Packing unit | 25 pc |
| Minimum order quantity | 25 pc |
| Sales key | AA15 |
| Product key | AAOIAA |
| Catalog page | Page 455 (C-1-2013) |
| GTIN | 4017918902094 |
| Weight per piece (including packing) | 65.37 g |
| Weight per piece (excluding packing) | 59.144 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |

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Technical data

Product properties

| | |
|---------------------------|--------------------------------|
| Product type | Printed circuit board terminal |
| Product family | MKDSP 25 |
| Product line | COMBICON Terminals XL |
| Type | Standard |
| Number of positions | 3 |
| Pitch | 15 mm |
| Number of connections | 3 |
| Number of rows | 1 |
| Number of potentials | 3 |
| Pin layout | Linear pinning |
| Solder pins per potential | 4 |

Electrical properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 125 A |
| Nominal voltage U_N | 1000 V |
| Rated voltage (III/3) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 8 kV |

Connection data

Connection technology

| | |
|-----------------------|--------------------|
| Type | Standard |
| Nominal cross section | 35 mm ² |

Conductor connection

| | |
|---|--|
| Connection method | Screw connection with tension sleeve |
| Conductor cross section rigid | 0.5 mm ² ... 35 mm ² |
| Conductor cross section flexible | 0.5 mm ² ... 35 mm ² |
| Conductor cross section AWG | 20 ... 2 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 1 mm ² ... 35 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 1.5 mm ² ... 35 mm ² |
| 2 conductors with same cross section, solid | 0.5 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible | 0.5 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.5 mm ² ... 4 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 16 mm ² |

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| | |
|-----------------------|--|
| Stripping length | 18 mm |
| Drive form screw head | Slotted Pozidriv (Z2L) |
| Tightening torque | 2.5 Nm ... 4.5 Nm (< 25 mm ² = 2.5 Nm, ≥ 25 mm ² = 4.5 Nm) |

Information on the aluminum conductor

| | |
|--|--|
| Cross section / torque / form of conductor | Cable cross section:35 mm ² ; Torque:4.5 Nm; Form of cable:round, single-strand, class 1(re) |
| Specification | DIN VDE 0276-603 (VDE 0276-603):2010-03 |
| Note on conductor pretreatment | The following measures are required for durable and reliable contacting of the aluminum conductor: the stripped end of the aluminum conductor must be separated from the oxide layer using a blade, and immediately dipped in non-acid and non-alkali Vaseline. The pretreatment must be repeated when connecting the conductors anew. |

Mounting

| | |
|---------------|----------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

Processing notes

| | |
|---------|----------------|
| Process | Wave soldering |
|---------|----------------|

Material specifications

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 (5 - 7 μm Sn) |
| Metal surface soldering area (top layer) | Tin (5 - 7 μm Sn) |

Material data - housing

| | |
|---|--------------|
| Color (Housing) | 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 |

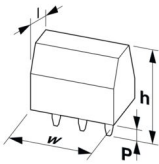
Dimensions

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| | |
|-----------------------|--|
| Dimensional drawing |  |
| Pitch | 15 mm |
| Width [w] | 45 mm |
| Height [h] | 43.5 mm |
| Length [l] | 31 mm |
| Installed height | 39 mm |
| Solder pin length [P] | 4.5 mm |
| Pin dimensions | 1.2 x 1.2 mm |

PCB design

| | |
|---------------|--------|
| Hole diameter | 1.6 mm |
|---------------|--------|

Mechanical tests

Test for conductor damage and slackening

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Pull-out test

| | |
|---|---|
| Specification | IEC 60999-1:1999-11 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.5 mm ² / solid / > 20 N |
| | 0.5 mm ² / flexible / > 20 N |
| | 35 mm ² / stranded / > 190 N |
| | 35 mm ² / flexible / > 190 N |

Electrical tests

Temperature-rise test

| | |
|-----------------------------------|--|
| Specification | IEC 60947-7-4:2013-08 |
| Requirement temperature-rise test | The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature. |

Short-time withstand current

| | |
|---------------|-----------------------|
| Specification | IEC 60947-7-4:2013-08 |
|---------------|-----------------------|

Insulation resistance

| | |
|--|-----------------------|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Air clearances and creepage distances |

| | |
|---------------------------|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |

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| | |
|--|---------|
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 12.5 mm |
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| minimum clearance value - non-homogenous field (III/2) | 8 mm |
| minimum creepage distance (III/2) | 8 mm |
| Rated insulation voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 8 kV |
| minimum clearance value - non-homogenous field (II/2) | 8 mm |
| minimum creepage distance (II/2) | 8 mm |

Environmental and real-life conditions

Vibration test

| | |
|------------------------|-----------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |

Glow-wire test

| | |
|------------------|------------------------|
| Specification | IEC 60695-2-10:2000-10 |
| Temperature | 850 °C |
| Time of exposure | 5 s |

Aging

| | |
|---------------|-----------------------|
| Specification | IEC 60947-7-4:2013-08 |
|---------------|-----------------------|

Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 100 °C (Depending on the current carrying capacity/derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

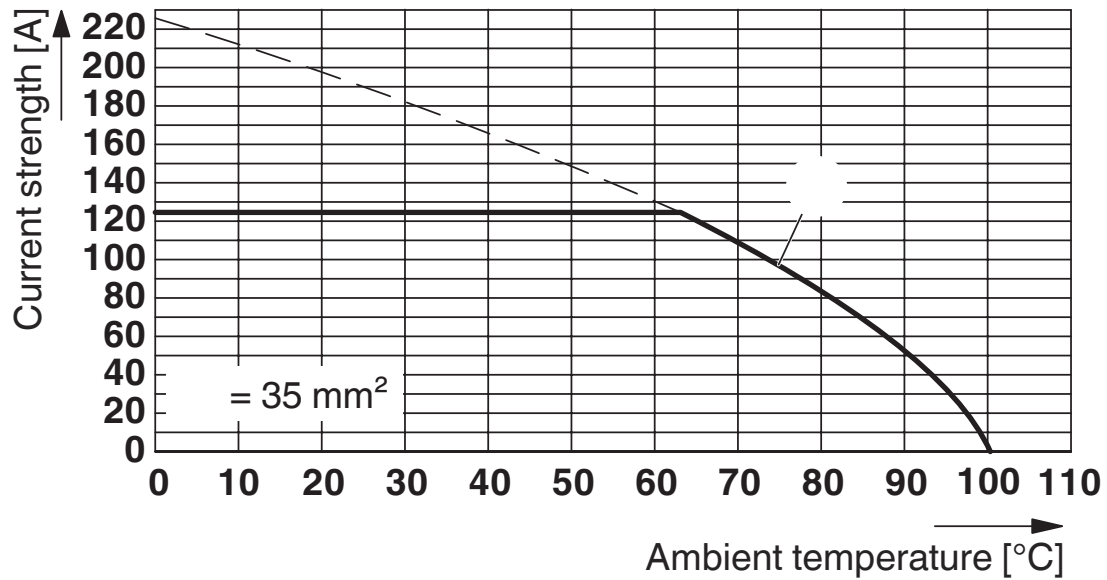
| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

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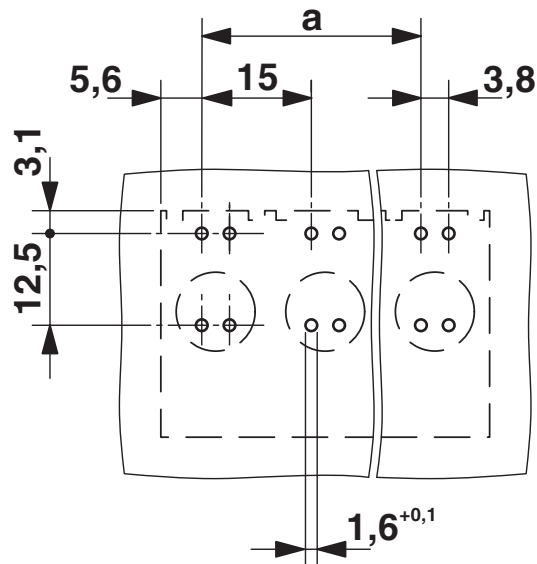
Drawings

Diagram



Type: MKDSP 25/...-15,00(-F)

Drilling plan/solder pad geometry



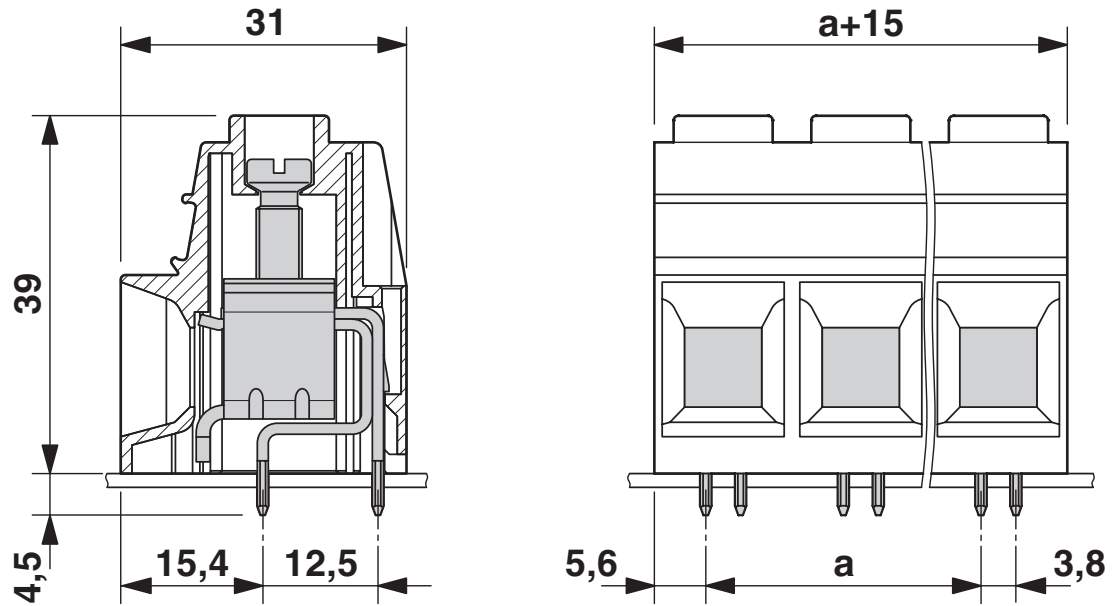
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Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1932591>

|  cULus Recognized Approval ID: E60425-19770427 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group B | 600 V | 115 A | 20 - 2 | - |
| Use group C | 600 V | 115 A | 20 - 2 | - |

|  VDE Zeichengenehmigung Approval ID: 40041859 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 1000 V | 125 A | - | 0.5 - 35 |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460101 |
| ECLASS-12.0 | 27460101 |
| ECLASS-13.0 | 27460101 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002643 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Accessories

RPS - Reducing plug

0201647

<https://www.phoenixcontact.com/us/products/0201647>



Reducing plug, number of positions: 1, color: gray

SZS 1,0X6,5 VDE - Screwdriver

1205079

<https://www.phoenixcontact.com/us/products/1205079>



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 6.5 x 150 mm, 2-component grip, with non-slip grip

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SK 10,0 WH:REEL - Marker strip

0812188

<https://www.phoenixcontact.com/us/products/0812188>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 10 mm, Number of individual labels: 7

ZBF 15:UNBEDRUCKT - Zack Marker strip, flat

0811202

<https://www.phoenixcontact.com/us/products/0811202>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 15 mm, lettering field size: 15 x 5.2 mm, Number of individual labels: 5

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MPS-MT - Test plug

0201744

<https://www.phoenixcontact.com/us/products/0201744>



Test plug, with solder connection up to 1 mm² conductor cross section, number of positions: 1, color: gray

MPS-IH WH - Insulating sleeve

0201663

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Insulating sleeve, color: white



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MPS-IH RD - Insulating sleeve

0201676

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Insulating sleeve, color: red

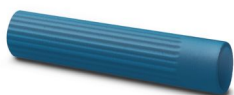


MPS-IH BU - Insulating sleeve

0201689

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Insulating sleeve, color: blue



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MPS-IH YE - Insulating sleeve

0201692

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Insulating sleeve, color: yellow



MPS-IH GN - Insulating sleeve

0201702

<https://www.phoenixcontact.com/us/products/0201702>

Insulating sleeve, color: green



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MPS-IH GY - Insulating sleeve

0201728

<https://www.phoenixcontact.com/us/products/0201728>

Insulating sleeve, color: gray



MPS-IH BK - Insulating sleeve

0201731

<https://www.phoenixcontact.com/us/products/0201731>

Insulating sleeve, color: black



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ZBF 15 CUS - Zack Marker strip, flat

0825019

<https://www.phoenixcontact.com/us/products/0825019>



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: 15 mm, lettering field size: 5.15 x 15.1 mm, Number of individual labels: 5

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