

# ZFKDS 1,5C-5,0-EX - PCB terminal block



1732111

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Printed circuit board terminal, nominal current: 16 A, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: ZFKDS(A) 1,5C-EX, pitch: 5 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard. Single module for the custom grouping of different numbers of positions. An end terminal block is also needed to terminate the block (see accessories). Blocked items with different numbers of positions are also available.

## 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
- Angled connection enables multi-row arrangement on the PCB
- Satisfies the more stringent safety requirements of "Ex e" protection according to IEC 60079-7 for potentially explosive areas
- The latching on the side enables various numbers of positions to be combined
- Two solder pins reduce the mechanical strain on the soldering spots

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1732111       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | AA12          |
| Product key                          | AALMBD        |
| GTIN                                 | 4046356280709 |
| Weight per piece (including packing) | 1.074 g       |
| Weight per piece (excluding packing) | 1.043 g       |
| Customs tariff number                | 85369010      |
| Country of origin                    | PL            |

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## Technical data

### Product properties

|                           |                                  |
|---------------------------|----------------------------------|
| Product type              | Printed circuit board terminal   |
| Product family            | ZFKDS(A) 1,5C-EX                 |
| Product line              | COMBICON Terminals S             |
| Type                      | PC terminal block can be aligned |
| Number of positions       | 1                                |
| Pitch                     | 5 mm                             |
| Number of connections     | 1                                |
| Number of rows            | 1                                |
| Number of potentials      | 1                                |
| Pin layout                | Linear pinning                   |
| Solder pins per potential | 2                                |

### Electrical properties

#### Properties

|   |                          |
|---|--------------------------|
| Nominal current $I_N$                   | 16 A                     |
| Nominal voltage $U_N$                   | 176 V                    |
| Rated current / conductor cross-section | 16 A/1.5 mm <sup>2</sup> |

### Ex data

#### Ex approval

|                                 |   |
|---------------------------------|---|
| Identification                  | 0344 <sup>®</sup> II 2GD / Ex eb IIC Gb |
| EU-type examination certificate | DEKRA 22ATEX0001U                       |
| IECEx certificate               | IECEx DEK 22.0001U                      |

### Connection data

#### Connection technology

|                       |                                  |
|-----------------------|----------------------------------|
| Type                  | PC terminal block can be aligned |
| Nominal cross section | 1.5 mm <sup>2</sup>              |

#### Conductor connection

|                                  |   |
|----------------------------------|---|
| Connection method                | Spring-cage connection                      |
| Conductor cross-section rigid    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section flexible | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Stripping length                 | 7 mm  |

### Mounting

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

### Material specifications

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## 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                  | hot-dip tin-plated   |
| Metal surface terminal point (top layer) | Tin (10 - 16 µm Sn)  |
| Metal surface soldering area (top layer) | Tin (10 - 16 µm Sn)  |

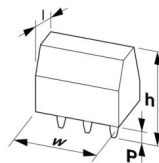
## Material data - housing

|   |              |
|---|--------------|
| 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       |

## Material data – actuating element

|                           |              |
|---------------------------|--------------|
| Color (Actuating element) | green (6021) |
|---------------------------|--------------|

## Dimensions

|                       |  |
|-----------------------|--|
| Dimensional drawing   |  |
| Pitch                 | 5 mm   |
| Width [w]             | 6.88 mm  |
| Height [h]            | 16.25 mm   |
| Length [l]            | 14.02 mm   |
| Installed height      | 12.75 mm   |
| Solder pin length [P] | 3.5 mm   |
| Pin dimensions        | 0.7 x 0.7 mm   |

## PCB design

|               |         |
|---------------|---------|
| Pin spacing   | 5.08 mm |
| Hole diameter | 1.1 mm  |

## Environmental and real-life conditions

### Ambient conditions

|   |                   |
|---|-------------------|
| Ambient temperature (operation)         | -50 °C ... 110 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C  |

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|                                       |                  |
|---------------------------------------|------------------|
| Relative humidity (storage/transport) | 30 % ... 70 %    |
| Ambient temperature (assembly)        | -5 °C ... 100 °C |

## Packaging specifications

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

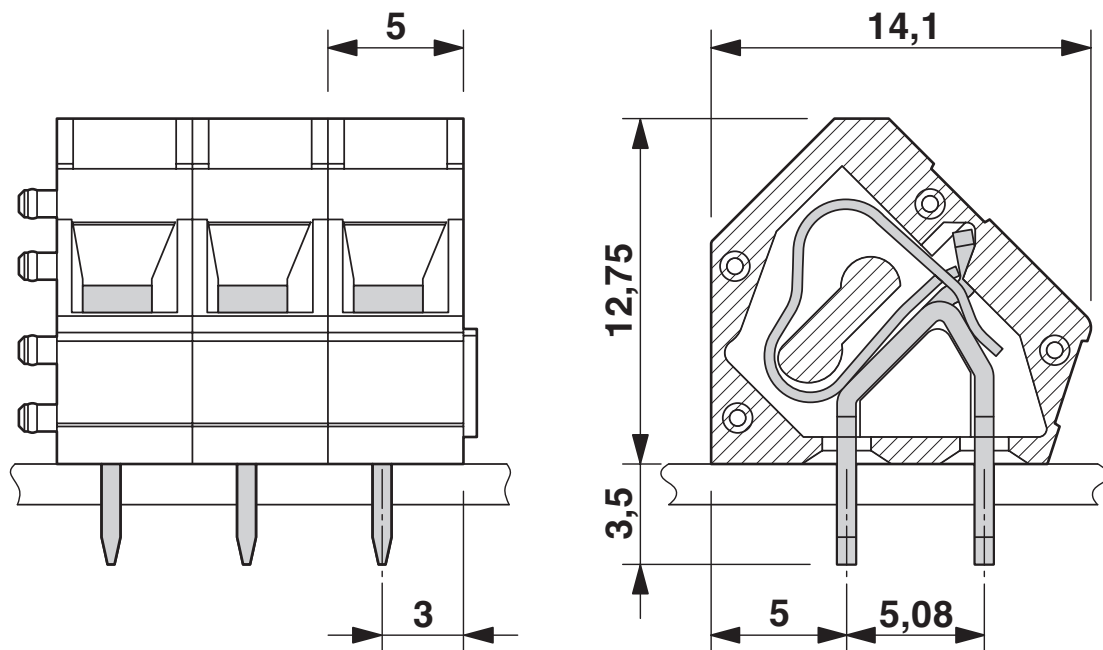
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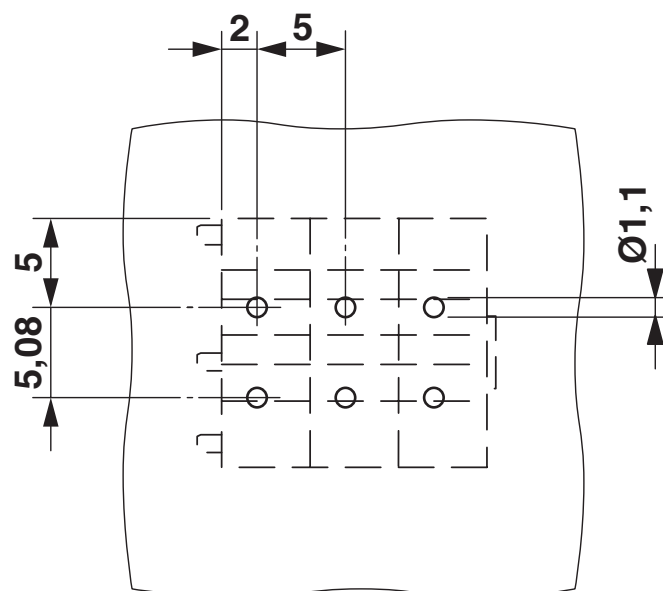
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## Drawings

Dimensional drawing



Drilling plan/solder pad geometry



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1732111>

|  <b>IECEx</b><br>Approval ID: IECEx DEK 22.0001U |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine   |                       |                       |                   |                             |
|   | 176 V                 | 16 A                  | -                 | 0.2 - 2.5                   |

|  <b>ATEX</b><br>Approval ID: DEKRA 22ATEX0001U |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine   |                       |                       |                   |                             |
|   | 176 V                 | 16 A                  | -                 | 0.2 - 2.5                   |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460101 |
| ECLASS-15.0 | 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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