

GKDS-EX- 3 GRZ - PCB terminal block



1991862

<https://www.phoenixcontact.com/us/products/1991862>

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The figure shows a 1-pos.
version of the product

Printed circuit board terminal, nominal current: 20 A, nominal cross section: 2.5 mm², number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: GKDS-EX, pitch: 7.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear pinning, Solder pin [P]: 5 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Satisfies the more stringent safety requirements of "Ex eb" protection according to IEC 60079-7 for potentially explosive areas
- Quick and convenient testing using integrated test option
- Two solder pins reduce the mechanical strain on the soldering spots
- The latching on the side enables various numbers of positions to be combined

Commercial data

Item number	1991862
Packing unit	50 pc
Minimum order quantity	1 pc
Product key	AAMFGA
GTIN	4017918976774
Weight per piece (including packing)	13.85 g
Weight per piece (excluding packing)	13.274 g
Country of origin	DE

Technical data

Product properties

Product type	Printed circuit board terminal
Product family	GKDS-EX
Product line	COMBICON Terminals M
Type	PC terminal block can be aligned
Number of positions	3
Pitch	7.5 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Properties

Nominal current I_N	20 A
Nominal voltage U_N	275 V
Rated current / conductor cross-section	20 A/2.5 mm ²

Connection data

Connection technology

Type	PC terminal block can be aligned
Nominal cross section	2.5 mm ²

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross-section rigid	0.2 mm ² ... 4 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
2 conductors with same cross section, rigid	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 1 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
Stripping length	9 mm
Drive form screw head	Slotted (L)
Tightening torque	0.5 Nm ... 0.6 Nm

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Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

Material specifications

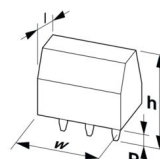
Material data - contact

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 µm - 7 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 µm - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (5 µm - 7 µm Sn)
Metal surface soldering area (middle layer)	Nickel (2 µm - 3 µm Ni)

Material data - housing

Color (Housing)	black (9005)
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

Dimensional drawing	
Pitch	7.5 mm
Width [w]	22.5 mm
Height [h]	25 mm
Length [l]	19 mm
Installed height	20 mm
Solder pin length [P]	5 mm
Pin dimensions	1.1 x 0.8 mm

PCB design

Hole diameter	1.4 mm
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Electrical tests

Air clearances and creepage distances |

Insulating material group	I
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Environmental and real-life conditions

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-25 °C ... 80 °C

Packaging specifications

Type of packaging	packed in cardboard
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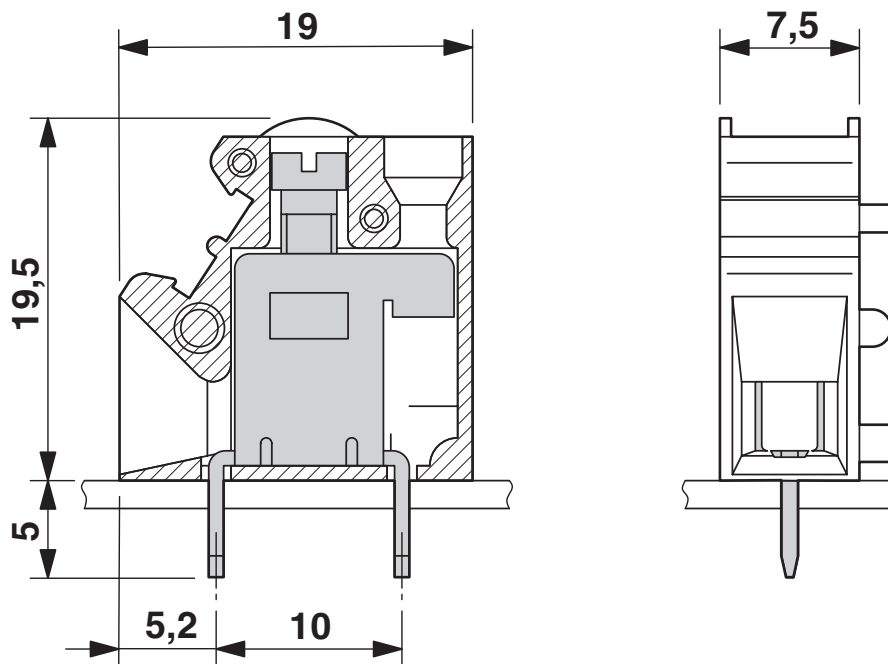
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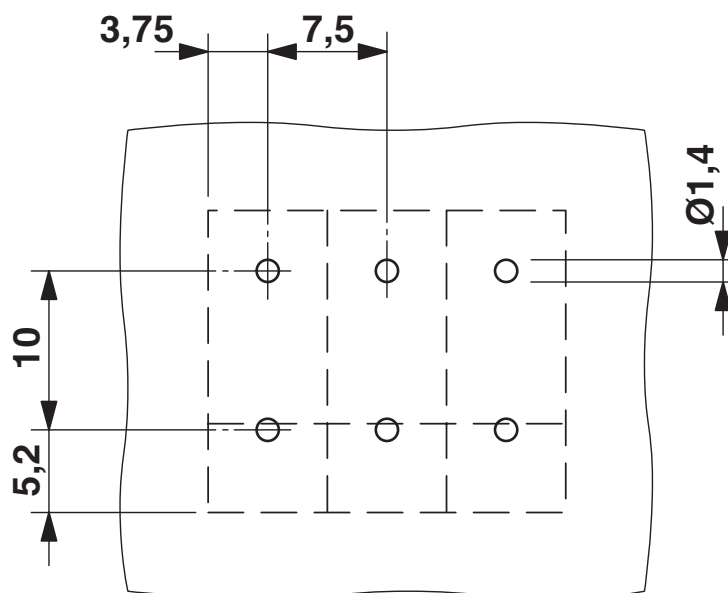
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Drawings

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/1991862>

 ATEX Approval ID: SEV 15 ATEX 0178 U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	275 V	20 A	-	0.2 - 2.5
Only rigid conductors	275 V	26 A	-	- 4
with pitch spacer	420 V	20 A	-	0.2 - 2.5

 cUL Recognized Approval ID: FILE E 192998				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	160 V	15 A	30 - 14	30 - 14
with pitch spacer	250 V	-	30 - 14	30 - 14
C				
	50 V	15 A	30 - 14	30 - 14
D				
	160 V	10 A	30 - 14	30 - 14
with pitch spacer	250 V	-	30 - 14	30 - 14

 IECEx Approval ID: IECEx SEV 15.0026U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	275 V	20 A	-	0.2 - 2.5
Only rigid conductors	275 V	26 A	-	- 4
with pitch spacer	420 V	20 A	-	0.2 - 2.5

 UL Recognized Approval ID: FILE E 192998				
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	160 V	15 A	30 - 14	-
with pitch spacer	250 V	-	30 - 14	-
C				
	50 V	15 A	30 - 14	-
D				

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	160 V	10 A	30 - 14	-
with pitch spacer	250 V	-	30 - 14	-

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Classifications

ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

ETIM

ETIM 10.0	EC002643
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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EF3.1 Climate Change

CO2e kg	0.104 kg CO2e
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