

PCB terminal block - GKDS-EX - 1709203

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PCB terminal block, nominal current: 20 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², pitch: 7.5 mm, number of positions: 1, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear double pinning, Solder pin [P]: 5 mm. The article can be aligned to create different nos. of positions! Every group of terminal blocks is to be provided with a GRZ 2,5V-EX (1706112) flange plate on both sides. If there are more than 10 terminal blocks, at least one additional flange plate must be mounted for each further group of ten. When the pitch spacer GRZ 2,5-EX (1724628) is used, the max. working voltage is increased to 420 V.

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



Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4017918023638

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	GKDS-EX
Pitch	7.5 mm
Number of positions	1
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M3
Mounting type	Wave soldering
Pin layout	Linear double pinning
Number of levels	1

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Technical data

Item properties

Number of connections	1
Number of potentials	1

Electrical parameters

Nominal current	20 A
Nom. voltage	630 V
Rated voltage	275 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	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.2 mm ² ... 4 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG / kcmil	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, solid	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
Torque	0.5 Nm ... 0.6 Nm

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

Material data - housing

Housing color	black (9005)
Insulating material	PA
Insulating material group	I

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Technical data

Material data - housing

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

Caption	Schematic representation – for additional information, see product range drawing in the Download Center
Length [l]	19 mm
Width [w]	7.5 mm
Height [h]	19.5 mm
Pitch	7.5 mm
Height (without solder pin)	20 mm
Solder pin [P]	5 mm
Pin dimensions	1.1 x 0.8 mm

Dimensions for PCB design

Hole diameter	1.4 mm
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Packaging information

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

Processing notes

Process	Wave soldering
Specification	Following IEC 61760-1:2006-04
	Following IEC 60068-2-54:2006-04

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)

Electrical tests

Rated current	20 A
Conductor cross section	2.5 mm ²
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV

Air clearances and creepage distances

Minimum clearance - inhomogeneous field (III/3)	5.5 mm
Minimum clearance - inhomogeneous field (III/2)	5.5 mm

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Technical data

Air clearances and creepage distances

Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	6.3 mm
Minimum creepage distance value (III/2)	3.2 mm
Minimum creepage distance value (II/2)	5 mm
Note on connection cross section	With connected conductor 4 mm ² (solid).

Standards and Regulations

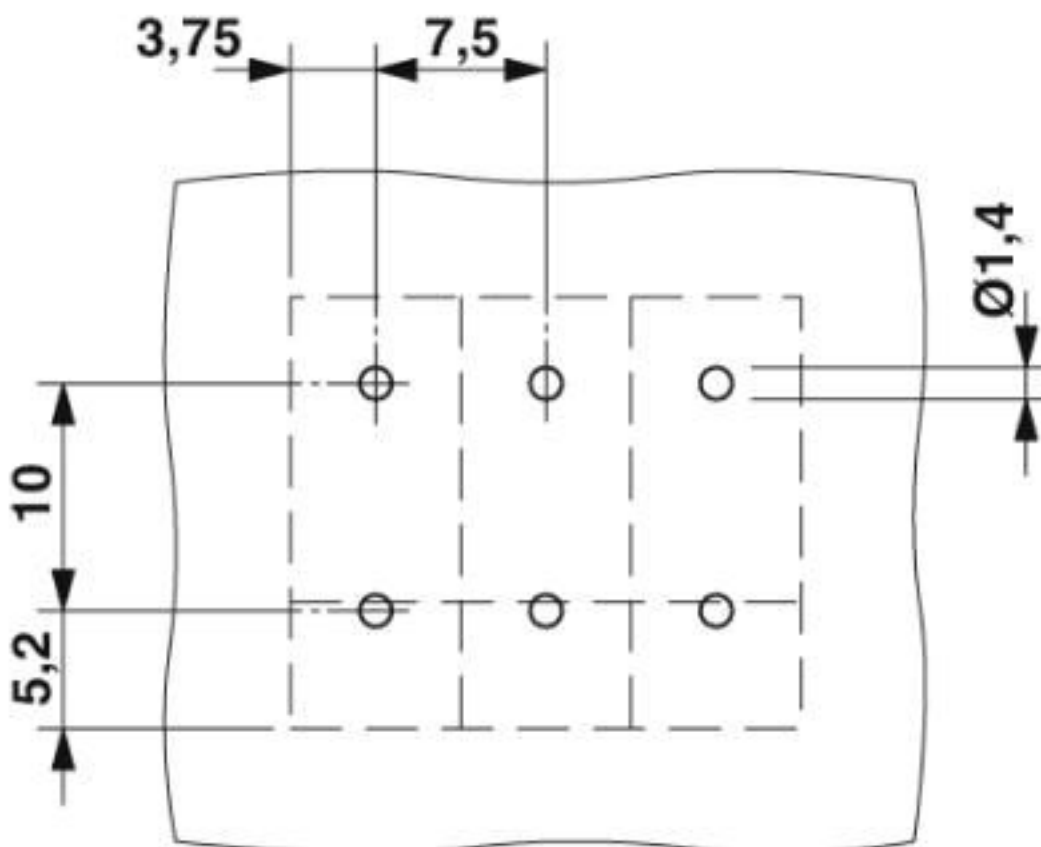
Connection in acc. with standard	EN-VDE
Flammability rating according to UL 94	V2

Environmental Product Compliance

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

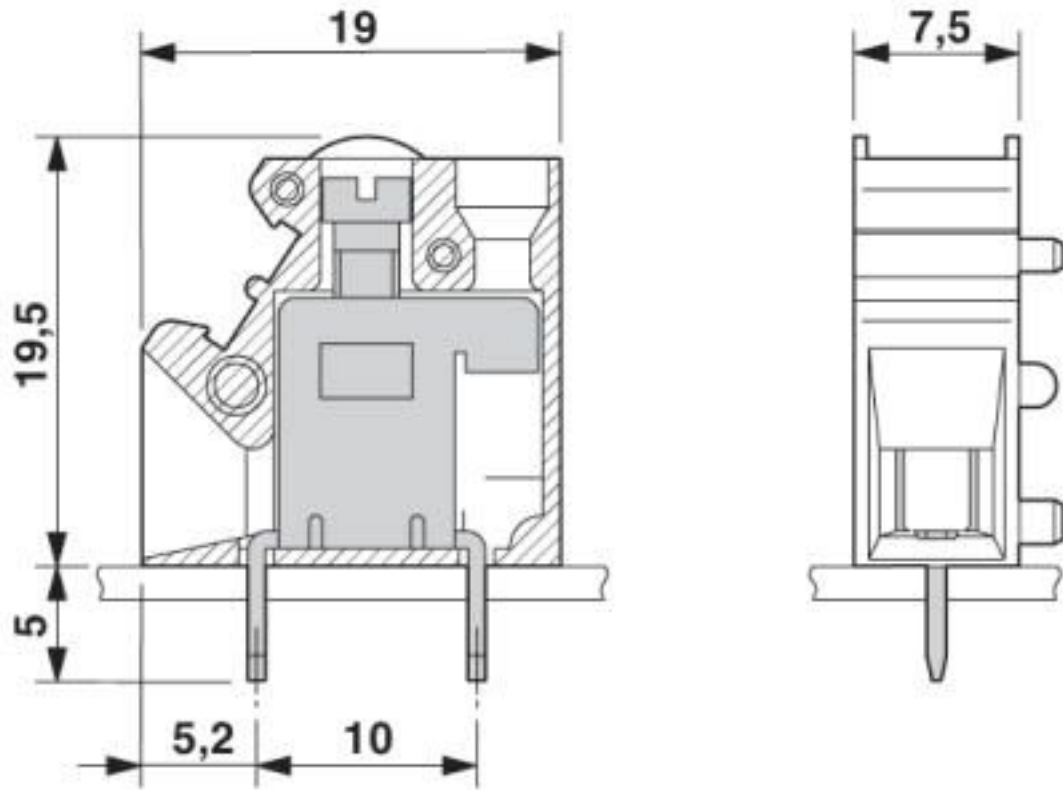
Drawings

Drilling diagram



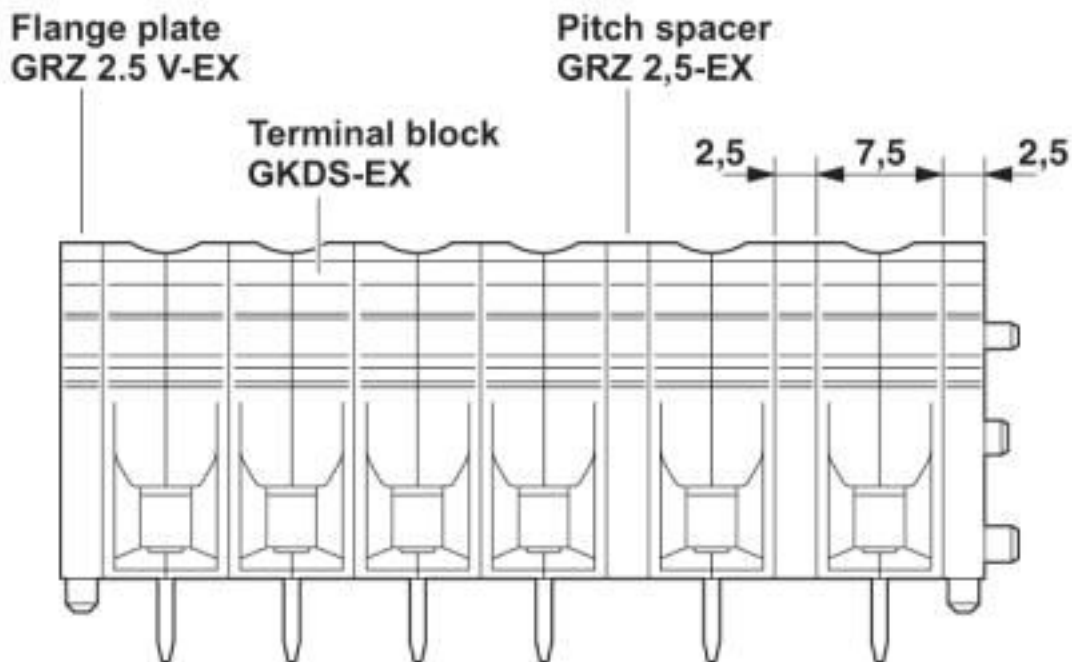
PCB terminal block - GKDS-EX - 1709203

Dimensional drawing



PCB terminal block - GKDS-EX - 1709203

Dimensional drawing



Installation instructions

Classifications

eCl@ss

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

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Classifications

UNSPSC

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

Accessories

Accessories

Insertion bridge

Insertion bridge - EB 2- BK 4 - 0801157



Insertion bridge, 2-pos., for strip terminal block, BK 4

Pitch spacer

Spacer plate - GRZ 2,5-EX - 1724628



Pitch spacer, raises the pitch by 2.5 mm, interlocks with terminal block of the same shape, color: black

PCB terminal block - GRZ 2,5 V-EX - 1706112



Flange plate, must be mounted at both sides for each terminal group or group of ten, color: black

Printed circuit board terminal

PCB terminal block - GKDS-EX - 1709203

Accessories

PCB terminal block - TP-KDS/GKDS-EX - 1701379



PCB terminal block, pitch: 0 mm, number of positions: 1, color: black

Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



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

Test plug terminal block

Reducing plug - RPS - 0201647



Reducing plug, color: gray

Test plugs - MPS-MT - 0201744



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

Mouser Electronics

Authorized Distributor

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