

FRONT 1,5-V-3,81 - PCB terminal block



1707742

<https://www.phoenixcontact.com/us/products/1707742>

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Printed circuit board terminal, nominal current: 17.5 A, rated voltage (III/2): 320 V, nominal cross section: 1.5 mm², number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: FRONT 1,5-V, pitch: 3.81 mm, connection method: Front screw connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, 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. The article can be aligned to create different nos. of positions!

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Operation and conductor connection from one direction enable integration into front of device
- 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	1707742
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA12
Product key	AALFBA
GTIN	4017918125882
Weight per piece (including packing)	1.702 g
Weight per piece (excluding packing)	1.688 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	FRONT 1,5-V
Product line	COMBICON Terminals S
Type	PC terminal block can be aligned
Number of positions	1
Pitch	3.81 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	17.5 A
Nominal voltage U_N	320 V
Rated voltage (III/3)	200 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	500 V
Rated surge voltage (II/2)	4 kV

Connection data

Connection technology

Type	PC terminal block can be aligned
Nominal cross section	1.5 mm ²

Conductor connection

Connection method	Front screw connection
Conductor cross-section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross-section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross-section AWG	26 ... 16
Conductor cross-section flexible, with ferrule without plastic sleeve	0.5 mm ² ... 1.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 0.75 mm ²
2 conductors with same cross section, solid	0.14 mm ² ... 0.75 mm ²
2 conductors with same cross section, flexible	0.14 mm ² ... 0.75 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.34 mm ²

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2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 0.5 mm²
Stripping length	9 mm
Tightening torque	0.22 Nm ... 0.25 Nm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

Material specifications

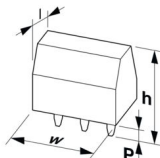
Material data - contact

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 - 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

Dimensional drawing	
Pitch	3.81 mm
Length [L]	15.9 mm
Installed height	16 mm
Solder pin length [P]	3.5 mm
Pin dimensions	0.8 x 0.8 mm

PCB design

Hole diameter	1.2 mm
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Electrical tests

Air clearances and creepage distances |

Insulating material group	I
Rated insulation voltage (III/3)	200 V
Rated surge voltage (III/3)	4 kV
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated insulation voltage (II/2)	500 V
Rated surge voltage (II/2)	4 kV

Environmental and real-life conditions

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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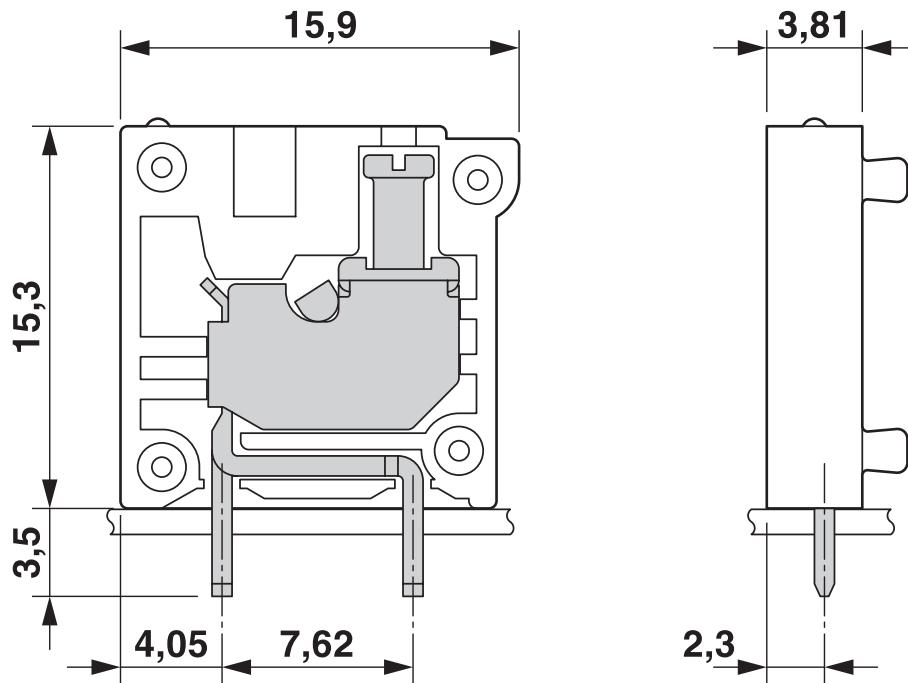
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Drawings

Dimensional drawing



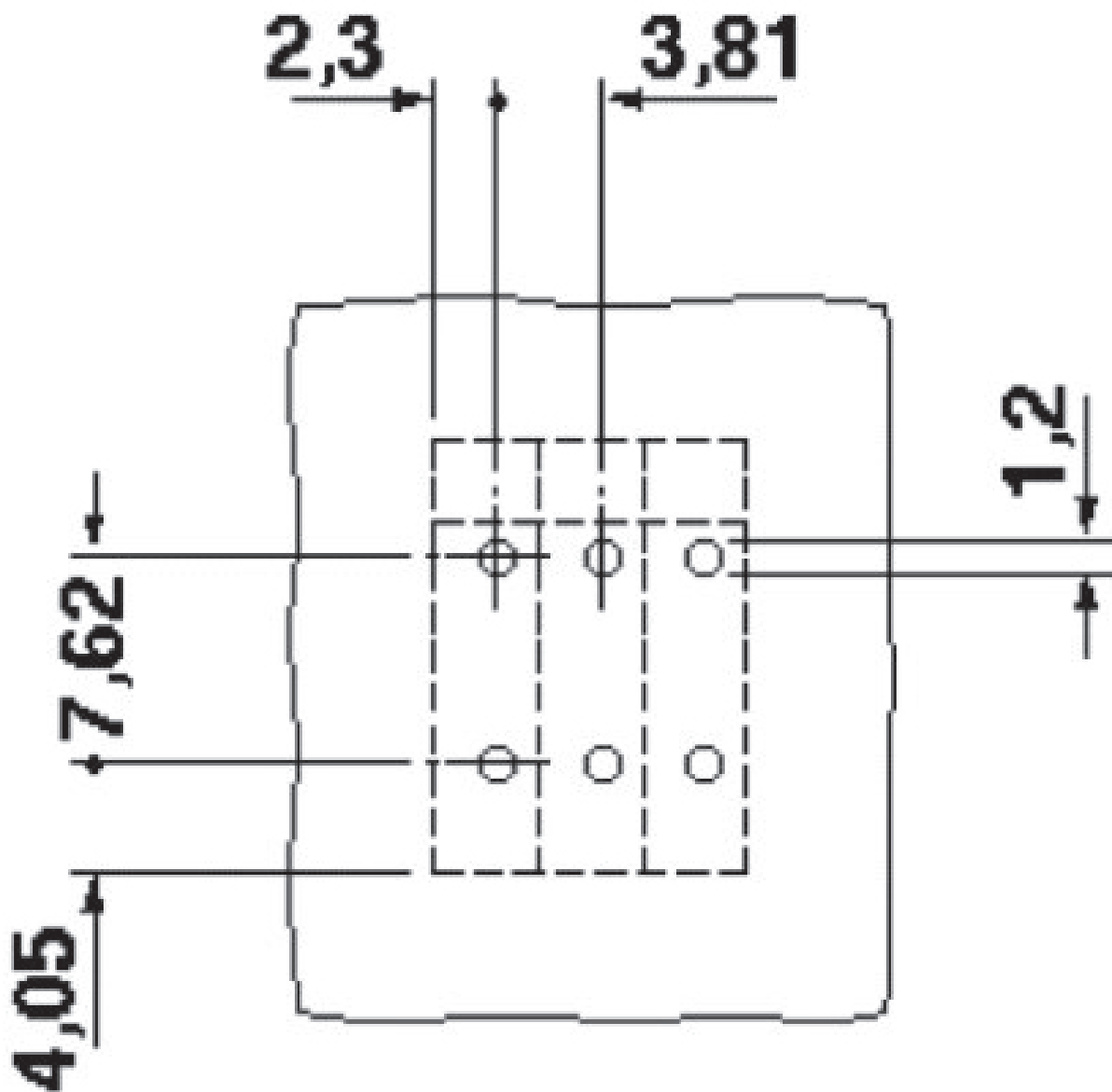
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Drilling plan/solder pad geometry



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Approvals

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<div> cULus Recognized Approval ID: E60425-20120629</div>				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	10 A	30 - 14	-
D				
	300 V	10 A	30 - 14	-

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Classifications

ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

ETIM

ETIM 9.0	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
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%
EF3.0 Climate Change	
CO2e kg	0.038 kg CO2e

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