

1935190

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PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm², number of potentials: 5, number of rows: 1, number of positions per row: 5, product range: PT 1,5/..-H, pitch: 5 mm, connection method: Screw connection with wire protector, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

Your advantages

- · Well-known connection principle allows worldwide use
- · Low temperature rise, thanks to maximum contact force
- · High terminal block capacity thanks to rectangular terminal block space
- · Allows connection of two conductors
- The latching on the side enables various numbers of positions to be combined

Commercial data

Item number	1935190
Packing unit	100 pc
Minimum order quantity	100 pc
Sales key	AA12
Product key	AALFMB
Catalog page	Page 421 (C-1-2013)
GTIN	4017918916961
Weight per piece (including packing)	5.31 g
Weight per piece (excluding packing)	5.08 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	PT 1,5/H
Product line	COMBICON Terminals S
Туре	PC termination block
Number of positions	5
Pitch	5 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I _N	17.5 A
Nominal voltage U _N	400 V
Degree of pollution	3
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

Connection data

Connection technology

Туре	PC termination block
Nominal cross section	1.5 mm ²

Conductor connection

Connection method	Screw connection with wire protector
Conductor cross section rigid	0.2 mm² 2.5 mm²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	26 14
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² 1.5 mm²
2 conductors with same cross section, solid	0.2 mm² 0.75 mm²
2 conductors with same cross section, flexible	0.2 mm² 0.75 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² 0.34 mm²
2 conductors with the same cross section, flexible, with TWIN	0.5 mm² 0.75 mm²



1935190

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mm
.35 Nm 0.4 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 (3 - 12 μm Sn)
Metal surface terminal point (middle layer)	Nickel (1.5 - 4 µm Ni)
Metal surface soldering area (top layer)	Tin (3 - 12 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.5 - 4 µm Ni)

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

Notes

Note on application	For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing).
Note on application	When using ferrules and taking the specified stripping length into consideration, 250 V is only achieved in conjunction with overvoltage category/pollution degree II/2.

Dimensions



1935190

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Dimensional drawing	P
Pitch	5 mm
Width [w]	25 mm
Height [h]	14.8 mm
Length [I]	9 mm
Installed height	11.3 mm
Solder pin length [P]	3.5 mm
Pin dimensions	ø 1 mm
PCB design	
Pin spacing	5 mm
Hole diameter	1.3 mm

Mechanical tests

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	0.2 mm^2 / flexible / > 10 N	
	0.2 mm² / solid / > 10 N	
	2.5 mm^2 / flexible / > 50 N	

2.5 mm² / solid / > 50 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 60947-1:2007-06 + A1:2010-12 + A2:2014-09



1935190

https://www.phoenixcontact.com/us/products/1935190

Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) Note on connection cross section Note on connection voltage (III/2) Rated insulation voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) A kV minimum clearance value - non-homogenous field (III/2) minimum creepage distance (III/2) 3 mm minimum creepage distance (III/2) 3 mm Rated insulation voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) Rated insulation voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) minimum clearance value - non-homogenous field (III/2) minimum clearance value - non-homogenous field (III/2) minimum clearance value - non-homogenous field (III/2) minimum creepage distance (III/2) minimum creepage distance (III/2) 3 mm		
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minimum creepage distance (III/3) Note on connection cross section Rated insulation voltage (III/2) Rated surge voltage (III/2) 4 kV minimum creepage distance (III/2) 3 mm minimum creepage distance (III/2) 3 mm Rated insulation voltage (III/2) 630 V Rated surge voltage (III/2) 4 kV minimum creepage distance value - non-homogenous field (III/2) 3 mm Rated insulation voltage (II/2) 4 kV minimum clearance value - non-homogenous field (III/2) 3 mm	Rated surge voltage (III/3)	4 kV
Note on connection cross section Rated insulation voltage (III/2) Rated surge voltage (III/2) Autor voltage (II	minimum clearance value - non-homogenous field (III/3)	3 mm
Rated insulation voltage (III/2) Rated surge voltage (III/2) ##W minimum clearance value - non-homogenous field (III/2) ### a minimum creepage distance (III/2) ### Rated insulation voltage (II/2) ### Rated surge voltage (II/2) #### Rated surge voltage (II/2) ### A word of the content of the conten	minimum creepage distance (III/3)	3.2 mm
Rated surge voltage (III/2) 4 kV minimum clearance value - non-homogenous field (III/2) 3 mm minimum creepage distance (III/2) 3 mm Rated insulation voltage (II/2) 630 V Rated surge voltage (II/2) 4 kV minimum clearance value - non-homogenous field (II/2) 3 mm	Note on connection cross section	With connected conductor 2.5 mm² (solid).
minimum clearance value - non-homogenous field (III/2) 3 mm minimum creepage distance (III/2) 3 mm Rated insulation voltage (II/2) 630 V Rated surge voltage (II/2) 4 kV minimum clearance value - non-homogenous field (II/2) 3 mm	Rated insulation voltage (III/2)	400 V
minimum creepage distance (III/2) 3 mm Rated insulation voltage (II/2) 630 V Rated surge voltage (II/2) 4 kV minimum clearance value - non-homogenous field (II/2) 3 mm	Rated surge voltage (III/2)	4 kV
Rated insulation voltage (II/2) Rated surge voltage (II/2) 4 kV minimum clearance value - non-homogenous field (II/2) 3 mm	minimum clearance value - non-homogenous field (III/2)	3 mm
Rated surge voltage (II/2) 4 kV minimum clearance value - non-homogenous field (II/2) 3 mm	minimum creepage distance (III/2)	3 mm
minimum clearance value - non-homogenous field (II/2) 3 mm	Rated insulation voltage (II/2)	630 V
	Rated surge voltage (II/2)	4 kV
minimum creepage distance (II/2) 3.2 mm	minimum clearance value - non-homogenous field (II/2)	3 mm
	minimum creepage distance (II/2)	3.2 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 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

Aging

Specification	IEC 60947-7-4:2013-08
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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

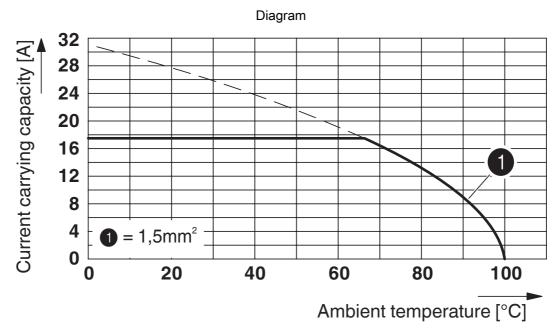
Type of packaging	packed in cardboard
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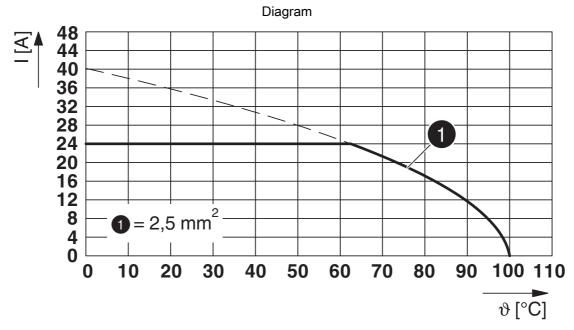
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Drawings



Type: PT 1,5/...-5,0-H



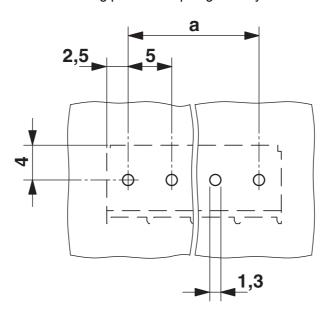
Type: PT 1,5/...-5,0-H (S)



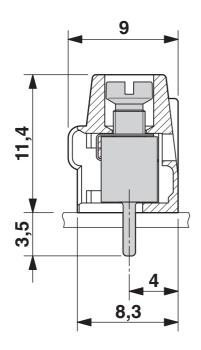
https://www.phoenixcontact.com/us/products/1935190

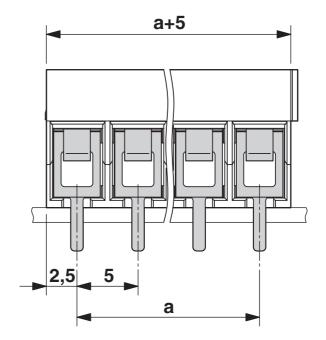


Drilling plan/solder pad geometry



Dimensional drawing







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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1935190

CULus Recognized Approval ID: E60425-20030211				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	300 V	18 A	26 - 12	-
Use group D				
	300 V	10 A	26 - 12	-

√DE	VDE Gutachten mit Fertigungsüberwachung Approval ID: 40031691				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		250 V	24 A	-	0.2 - 2.5

VDE Zeichengeneh Approval ID: 40055523	migung			
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
	400 V	17.5 A	-	0.2 - 1.5



1935190

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Classifications

UNSPSC 21.0

ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101
ETIM	
ETIM 9.0	EC002643
UNSPSC	

39121400



1935190

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	e061e6ec-da0d-4a24-b0a4-058515a9df99



1935190

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Accessories

SZS 0,6X3,5 - Screwdriver

1205053

https://www.phoenixcontact.com/us/products/1205053



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

SK 5/3,8:FORTL.ZAHLEN - Marker card

0804183

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Marker card, white, labeled, horizontal: consecutive numbers 1 \dots 10, 11 \dots 20, etc. up to 91 \dots (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm



1935190

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CRIMPFOX CENTRUS 6S - Crimping pliers

1213144

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Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm^2 ... 6 mm^2 , also for TWIN ferrules up to 2 x 4 mm^2 , automatic cross section adjustment, lateral insertion, equipped with fall protection

CRIMPFOX 6 - Crimping pliers

1212034

https://www.phoenixcontact.com/us/products/1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, $0.25~\text{mm}^2$... $6.0~\text{mm}^2$, lateral entry, trapezoidal crimp

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