

https://www.phoenixcontact.com/us/products/1190300



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Printed circuit board terminal, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², number of potentials: 5, number of rows: 1, number of positions per row: 5, product range: LPT 2,5/, pitch: 5 mm, connection method: Lever Push-in connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, type of packaging: packed in cardboard

### Your advantages

- · Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- · Clear lever positions provide reliable feedback on opened or closed clamping spaces
- · Defined contact force ensures that contact remains stable over the long term
- · Time-saving push-in connection when lever is closed
- · Intuitive operation, thanks to a color-coded actuation lever

#### Commercial data

Item number	1190300	
Packing unit	100 pc	
Minimum order quantity	100 pc	
Note	Made to order (non-returnable)	
Sales key	AA13	
Product key	AAMTAA	
GTIN	4063151239022	
Weight per piece (including packing)	8.503 g	
Weight per piece (excluding packing)	8.105 g	
Customs tariff number	85369010	
Country of origin	SK	



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### Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	LPT 2,5/
Product line	COMBICON Terminals M
Number of positions	5
Pitch	5 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Pin layout	Linear pinning

### Electrical properties

#### **Properties**

Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	400 V
Rated voltage (III/3)	320 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

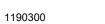
# Connection technology

ferrule with plastic sleeve

Stripping length

Nominal cross section	2.5 mm²		
Conductor connection			
Connection method Lever Push-in connection			
Conductor cross-section rigid	0.2 mm <sup>2</sup> 4 mm <sup>2</sup> (Conductor connection with open terminal point)		
	0.5 mm <sup>2</sup> 4 mm <sup>2</sup> (Push-in connection)		
Conductor cross-section flexible	0.2 mm² 4 mm²		
Conductor cross-section AWG	24 12		
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm² 2.5 mm² (Conductor connection with open terminal point)		
	1.5 mm² 2.5 mm² (Push-in connection)		
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² 2.5 mm² (Conductor connection with open terminal point)		
	0.5 mm² 2.5 mm² (Push-in connection)		
2 conductors with the same cross section, flexible, with TWIN	0.5 mm² 1.5 mm²		

10 mm ... 12 mm



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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 (10 - 16 μm Sn)
Metal surface soldering area (top layer)	Tin (10 - 16 μm Sn)

### Material data - housing

<del>-</del>	
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)	orange (2003)
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

### **Dimensions**

Dimensional drawing	h h
Pitch	5 mm
Width [w]	26.5 mm
Height [h]	20.14 mm
Length [I]	17.8 mm
Installed height	16.64 mm
Solder pin length [P]	3.5 mm

minimum clearance value - non-homogenous field (II/2)



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Pin dimensions	0.84 x 0.7 mm
PCB design	
Hole diameter	1.3 mm
chanical tests	
Test for conductor damage and slackening	
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	0.2 mm² / solid / > 10 N
setpoint/actual value	0.2 mm² / flexible / > 10 N
	4 mm² / solid / > 60 N
	4 mm² / flexible / > 60 N
	0.5 mm² / solid / > 20 N
Temperature-rise test Specification	IEC 60947-7-4:2019-01
Specification  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 60947-7-4:2019-01
insulation resistance	
Specification	IEC 60512-3-1:2002-02
- p	
Insulation resistance, neighboring positions	
Insulation resistance, neighboring positions	> 5 MΩ
Air clearances and creepage distances	> 5 MΩ
Air clearances and creepage distances   Specification	> 5 MΩ IEC 60947-7-4:2019-01
Air clearances and creepage distances   Specification Insulating material group	> 5 MΩ  IEC 60947-7-4:2019-01
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3) Rated surge voltage (III/3)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V  4 kV
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V  4 kV  3 mm
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V  4 kV  3 mm  4 mm
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V  4 kV  3 mm  4 mm  400 V
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V  4 kV  3 mm  4 mm
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) minimum clearance value - non-homogenous field (III/2)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V  4 kV  3 mm  4 mm  400 V  4 kV  3 mm
Air clearances and creepage distances   Specification Insulating material group Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2)	> 5 MΩ  IEC 60947-7-4:2019-01  I  320 V  4 kV  3 mm  4 mm  400 V  4 kV

3 mm



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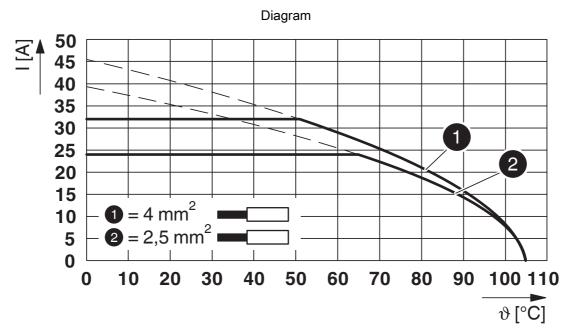
minimum creepage distance (II/2)	3.2 mm
nvironmental and real-life conditions	
Vibration test	
Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz 60.1 Hz)
Acceleration	50 m/s² (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Glow-wire test	
Specification	IEC 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s
Aging	
Specification	IEC 60947-7-4:2019-01
Ambient conditions	
Ambient temperature (operation)	-40 °C 105 °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
ackaging specifications	
Type of packaging	packed in cardboard



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## Drawings



Type: LPT 2,5/...-5,0



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## **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1190300

UL Recogn Approval ID: El	ized 60425-20210507			
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
F				
	320 V	20 A	24 - 12	-
G				
	300 V	10 A	24 - 12	-

c <b>911</b> us	cULus Recognized Approval ID: E60425-20210507					
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
В						
		300 V	20 A	24 - 12	-	
D						
		300 V	10 A	24 - 12	-	

	VDE approval of drawings Approval ID: 40054949					
	Nominal voltage $\mathbf{U}_{\mathrm{N}}$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>		
keine						
Standard	400 V	24 A	-	0.2 - 2.5		
Alternative 1	400 V	32 A	-	0.2 - 4		



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## Classifications

UNSPSC 21.0

### **ECLASS**

27460101				
27460101				
27460101				
ETIM				
EC002643				
UNSPSC				

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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